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**A Salient Stakeholder-driven Model for Integration of Sustainability
Education into the Accounting Curriculum in Jordan**

A thesis

submitted in fulfilment

of the requirements for the degree

of

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at

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by

Huthaifa Al. Hazaima



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Abstract

This thesis examines the perceptions of salient stakeholders in Jordan towards the importance of integrating sustainability education into the accounting curriculum. Employing salient stakeholder theory as a lens the thesis seeks to explore the possible integration of sustainability education into the Jordanian tertiary accounting curriculum. This study attempts to answer four research questions: 1. How important is it to integrate sustainability education into the Jordanian accounting curriculum? 2. What do salient stakeholders expect to find in the Jordanian accounting curriculum with regard to sustainability education? 3. What are the challenges and benefits of integrating sustainability education into the accounting curriculum of Jordanian business schools? 4. How can an integrated sustainability accounting education model be developed in the Jordanian accounting curriculum?

This study adopts a mixed method approach. It first uses a quantitative research method to investigate the perceptions of a wide group of salient stakeholders in Jordan. A total of 966 questionnaires were distributed to five different groups of salient stakeholders (educators, students, practitioners, the government, and the accounting profession). There were 702 final usable responses with a response rate of approximately 72.6%. The data collected was analysed using IBM SPSS Statistics v.22 software. The study then attempted to gain insight into and understanding of the issue under investigation. Thus, the study adopted a qualitative research method and used semistructured interviews to understand the perceptions of 46 participants who reflected the same groups of stakeholders surveyed in the quantitative part of this study. A thematic analysis approach was used to analyse these 46 interviews. Nvivo 12 was used for this purpose. The study finally triangulated the quantitative and qualitative findings to develop a salient stakeholder driven-model for sustainability accounting education in Jordan.

This study provides evidence that the accounting curriculum in Jordan does not appear to meet the needs of its stakeholders. The study also shows that all stakeholders in Jordan believe that it is important to integrate sustainability education into the current accounting curriculum and that there is a need for this integration first, because sustainability accounting education in Jordan will lead to transparency and accountability in the future, and second, because its integration into the curriculum will lead to an increase in the awareness and understanding of global sustainability issues not only amongst students but also in Jordanian society. The usefulness of integrating sustainability in the Jordanian accounting curriculum lies in its ability

to enhance future sustainability practices. The study also shows that sustainability education meets the aims of Jordanian higher education, which should support the integration process.

In addition, the study shows that stakeholders in Jordan want to see sustainability education integrated into the accounting curriculum in two different ways. First, they advocate adding sustainability accounting topics to individual accounting paper sessions (e.g., lectures) within the existing accounting curriculum structure and second, developing a new compulsory stand-alone course on sustainability accounting for inclusion in the existing accounting curriculum. According to the participants, both methods of integration should be applied in parallel. The study shows moreover that stakeholders focused on integrating specific sustainability accounting topics into the existing accounting curriculum. These include disclosure of corporate sustainability information, sustainability implementations in cost and management accounting, and the role of sustainability accounting information in the decision-making process and in solving local and global sustainability issues.

Additionally, this study shows that the government sector is the strongest advocate for integrating sustainability education into the accounting curriculum, whereas the student group is the least supportive of the issue. The study found that accounting educators are more supportive of this integration than participants from the industrial sector and the accounting profession are. The study uncovered some of the challenges that may face integrating sustainability education into the accounting curriculum in Jordan. These challenges relate to the Higher Education Accreditation Committee's (HEAC) power, legitimacy, and urgency. All accounting curriculum contents are controlled by this committee, rendering stakeholders powerless to change it. The lack of qualified educators to teach sustainability issues and the lack of appropriate textbooks are another challenge. Finally, the accounting curriculum itself is overcrowded.

The study's qualitative findings provide insight into the challenges and benefits of integrating sustainability education into the curriculum in Jordan. It was found that this integration faces different challenges including educational, governmental, institutional, ideological, and social challenges. Nevertheless, the findings show that sustainability accounting education brings various benefits for Jordan, as it benefits the accounting curriculum and education, the accounting students, the business organisations, and the overall society and environment. The qualitative findings also show that there is an inappropriate distribution of power, legitimacy, and urgency amongst salient stakeholders which prevents the implementation of sustainability

accounting education in Jordan. Furthermore, the findings indicate a lack of synergies among salient stakeholders.

These findings are important because they provide a guideline for how to develop a model to integrate sustainability education into the accounting curriculum in Jordan, something which has not been done before in Jordan. This study is important because it investigated wide groups of stakeholders and compared the support amongst them for the issue under investigation. This study's Jordanian stakeholders share many common beliefs and behaviours with others in the Middle Eastern countries overall. Consequently, their opinions and perceptions offer a very good example which other studies undertaken in the Middle East and North Africa can follow.

This thesis should assist the government of Jordan and other education providers to integrate sustainability education into the existing accounting curriculum. This integration may help bring about changes that improve the teaching of sustainability education from a business and accounting perspective. Universities, including business schools, are the main providers of sustainability education, yet these educational institutions need cooperation from the government, the industrial sector and the accounting profession to manage the development of the ongoing education process.

There is a lack of research concerning how salient stakeholders perceive sustainability education within business schools particularly in developing nations such as Jordan. This PhD study contributes to the discussion on integrating sustainability education into business schools' curriculum to produce future managers who are more responsible towards their environment and society. The thesis also contributes to theory not only because it employs salient stakeholder theory to develop a theoretical framework for Jordan, but also because that theory helps to explain the findings of the study in light of the stakeholders' possession of power, legitimacy, and urgency. All research have limitations; this study was focussed on a developing country in the Middle East and may not be generalisable to other developing countries which also have significant sustainability issues. Recommendations for future research include the investigation of sustainability accounting education in other developing countries to compare findings that enables a better and more comprehensive understanding to the overall sustainability education position in business schools in developing countries.

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Dedication

This thesis is dedicated to my late grandfather, who left this life while this work was in progress, for the good memories he has left which inspired me to be the kind grandson he would be proud of. This thesis is also dedicated to my parents, Mohammed and Fatima, for their unconditional love, encouragement and support.

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List of Acronyms

SAE	Sustainability Accounting Education
SE	Sustainability Education
MENA	Middle East and North African
CSR	Corporate Social Responsibility
EMA	Environmental Management Accounting
CFO	Chief Financial Officer
FoEME	Friends of the Earth Middle East
GDP	Gross Domestic Production
ASE	Amman Stock Exchange
FDI	Foreign Direct Investment
HEAC	Higher Education Accreditation Commission
SRI	Stanford Research Institute
ICAA	Institute of Chartered Accountants in Australia
MOE	Ministry of Education
MOF	Ministry of Finance
JACPA	Jordanian Association for Certified Public Accountants
JAMA	Jordan Association of Management Accountants
IASs	International Accounting Standards
GAAP	Generally Accepted Accounting Principles
GRI	Global Reporting Initiative
IAU	International Association of Universities
UNU	United Nations University
SD	Sustainable Development
AASHE	Association for the Advancement of Sustainability in Higher Education
UNDESD	United Nations of Decade on Education for Sustainable Development
GUPES	Global Universities Partnership on Environment for Sustainability
SDGs	Sustainable Development Goals
IAS	Institute for the Advanced study of Sustainability

TERI	The Energy and Resources Institute
UNESCO	United Nations Educational, Scientific and Cultural Organisation
IASB	International Accounting Standards Board
FASB	Financial Accounting Standards Board
MBA	Master of Business Administration
DOL	Department of Labour
DOE	Department of Education
ASGISA	Accelerated Shared and Growth Initiative of South Africa
JIPSA	Joint Initiative for Priority Skills of South Africa
NSDS	National Skills Development Strategy
SETA	Sector Education and Training Authority
ETQA	Education and Training Quality Assurance
SAQA	South African Qualifications Authority
OBE	Outcome-Based Education
ROI	Return on Investment
R & D	Research and Development
CMA	Certified Management Accountant
IR	Integrated Reporting
ACCA	Association of Chartered Certified Accountants
CEO	Chief Executive Officer
IFRS	International Financial Reporting Standards
ISO	International Organisation for Standardisation
IFAC	International Federation of Accountants
EPA	Environmental Protection Agency
SASB	Sustainability Accounting Standard Board
FEE	Fédération des Experts Comptables Europeens
ISEA	Institute of Social and Ethical AccountAbility
NGO	Non-Governmental Organisation

Chapter 1

Overview of the Thesis

1.1 Introduction

This study investigated the integration of sustainability education into the accounting curriculum of Jordanian universities. It is anticipated that the findings generated from this investigation will provide valuable insights for the integration of sustainability education into the accounting curriculum of Jordanian universities not only for those universities in particular but also within a wider context such as the Middle East. This chapter first sets out the background of the research issue and then provides an overview of the research context and a discussion of the research's importance. The research aims and questions are then presented and followed by discussion of the research approach of this study. This chapter concludes with a summary outline of the thesis.

1.2 The Researcher in the Research

I am a Jordanian who has grown up, studied, and worked in a country where environmental degradation and industrial pollution are something which people have to live with on a daily basis as a result of the country's economic development and the fact that Jordan's industrial revolution is at its peak. Even though I studied accounting for 4 years at a public university in Jordan and worked for about 6 years in the private sector, "sustainability" was an unusual word to me. Nevertheless, it is a word which I believe is important for both the environment and society of Jordan. My interest in sustainability developed when I was studying in New Zealand for a master's degree in accounting. The literature on sustainability accounting strongly convinced me of the significance of sustainability, its notion, and application and led me to believe that it was a way to resolve or at least mitigate the environmental consequences of industry worldwide and in Jordan. Thus, my research issue arose from concerns over the lack of sustainable business practices to address the adverse consequences of industrial activities in Jordan. To address these consequences, industries in Jordan need to address their adverse business practices and move towards more sustainable corporate practices. However, the academic background of those who currently lead Jordan's industries is based on a traditional approach that appreciates only a profit maximisation goal. Therefore, to produce a new

generation of leaders who respect the environment and society, it is important to change the traditional accounting [and business] curricula in Jordan's universities. The background to the research is provided next.

1.3 Background of the Research Issue

The 21st century has brought expansion in all fields, but, most particularly, in the fields of technology, globalisation, and industrialisation. However, these developments have also resulted in unprecedented environmental and societal degradation (Al-Mulali & Ozturk, 2015; Ngwakwe, 2012). Disasters such as global warming, climate change, biodiversity erosion, and air, soil, and water pollution are creating a serious problem for both society and the environment (Berthelot, Coulmont, & Serret, 2012). The Middle East and North African (MENA) region suffers from huge environmental degradation due to energy consumption, trade openness, and industrial development (Al-Mulali & Ozturk, 2015).

The impact of the exploitation of the earth's natural resources has more than doubled during the last three decades (Al-Mulali & Ozturk, 2015). Furthermore, the heavy use of natural resources has harmed the earth and resulted in pollution, climate change, overexploitation of species, and loss of habitat (Reddy & Gordon, 2010). The rate at which the world is currently consuming resources is concerning (Al-Mulali & Ozturk, 2015). Scholars and experts in all fields of business wonder if there will be enough resources for coming generations to fulfil their needs (Berthelot et al., 2012). Given that most businesses exist only to satisfy the growing demands of human beings and focus merely on maximising profits, the issue of sustainability has arisen as a result of the negative impact businesses have on both society and the environment in which they operate (Berthelot et al., 2012).

Tilt (2009) believes that accountants and other salient stakeholders including academics, practitioners, and professional associations have a significant contribution to make to sustainability accounting and its related terms including social and environmental accounting and CSR. Scholars who have discussed the relationship between sustainability and accounting focus on the limited ability of traditional accounting to fulfil the needs of stakeholders (Gray, 2013, 2019; Mathews, 1997; Schaltegger & Burritt, 2000; Sharma & Kelly, 2012, 2015), because traditional accounting is limited by the implicit philosophy of accounting, i.e., a philosophy that concentrates on the monetary, quantitative measures of the economic activities within an organisation (Gray, 1992; Lehman, 1999; Mathews, 1997, 2001; Maunders & Burritt, 1991). Figge, Hahn, Schaltegger, and Wagner (2002) have called for additional disclosure of

environmental and social performance and the balancing of corporate activities with economic performance. An excessive emphasis on monetary measurement in terms of the environmental impacts of a company will produce an incomplete understanding of opportunities and risk (Schaltegger & Burritt, 2010). Hence, traditional financial accounting is failing to facilitate understanding of corporate environmental impacts and is employed only to make profitability and maximisation of shareholders' wealth, regardless of any environmental or social concerns.

That said, accounting has more recently begun to play a key role in supporting the issue of sustainability, as changes to traditional accounting have taken the form of environmental accounting and sustainability accounting (Schaltegger & Burritt, 2010). Environmental accounting focuses on environmental impacts as well as the extended performance; these are expressed in nonfinancial terms or in physical and qualitative terms (Yongvanich & Guthrie, 2006). However, the focus of sustainability accounting is on the integration of corporate environmental, social, and economic activities (Thomson & Unerman, 2007). Lamberton (2005) believes that both environmental accounting and sustainability accounting are accounting systems that support the issue of sustainability in that they strongly relate to each other and can be used interchangeably.

The literature explains the role of accounting in supporting the issue of sustainability. De Beer and Friend (2006) argue that environmental management accounting (EMA), as a part of management accounting, is an important tool for overcoming limitations of traditional management accounting and facilitating an understanding through quantifying environmental issues for the process of decision-making. According to Bennett, Schaltegger, and Zvezdov (2012), environmental management accounting requires the use of environmental management tools to integrate sustainability measures in conventional accounting systems, so that EMA impacts on strategic and operational decisions and improves corporate ecological and economic performance. Accounting's role in supporting sustainability and its practices can be viewed also through sustainability reporting (Burritt & Schaltegger, 2010; Hopwood, Unerman, & Fries, 2012). According to the International Federation of Accountants (2011), professional accountants can be pioneers in developing sustainability reporting strategies and corporate social responsibility disclosure that produce high-quality reports on the sustainability practices of an organisation.

While research studies, practitioners, and professional associations have supported the role of accounting in sustainability practices and reporting (Bebbington, 2001; Bellringer, Ball, &

Craig, 2011; Deegan, 2002; Gray, 2006a, 2010; Gray, McPhail, Collison, French, & Stevenson, 2001; International Federation of Accountants, 2011; Kamla, 2005, 2007; Lamberton, 2005; Mathews, 1997), this role has not been utilised in practice because businesses focus on maximising economic profit and ignore the environmental consequences of their operations (Ngwakwe, 2012). The low and weak reporting of Middle Eastern organisations, as shown in Figure 1.1 extracted from KPMG (2015), could be an indicator of the poor performance of corporate sustainability. The figure shows that organisations in the Middle East region, including Jordan, have the lowest rate of sustainability reporting. A reason behind the poor performance of corporate sustainability could be the lack of sustainability education at a tertiary education level. Hence, it is important to study this topic because it helps to raise awareness of sustainability education amongst Jordan’s salient stakeholders.

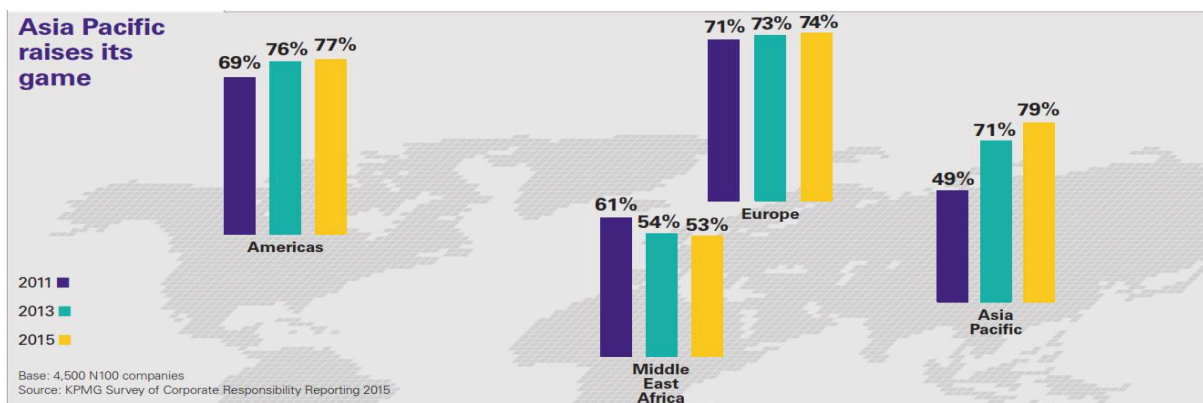


Figure 1.1 Rates of Corporate Responsibility Reporting Worldwide

Stockholm’s Conference on the Human Environment (1972) was the first to officially recognise the important role of tertiary education in maintaining sustainable development at the global level. The Belgrade Charter (1975), the Tbilisi Declaration (1977), and the United Nations Conference on Environment and Development (1992) have all acknowledged the importance of tertiary education in progressing sustainable development (Tilbury, 2011). However, the most important step was the international activity in moving towards the inclusion of environmental understanding and sustainability in tertiary education. This step resulted in declarations being signed by universities, higher education associations, and government ministers committed to sustainability through ethical operation and more accountability to stakeholders (Tilbury, 2011).

Research studies found that higher education institutions have been vital in creating new fields of knowledge and development. They have made social change through scientific discoveries

as well as through the making and preparing of leaders and future-makers (Cortese, 2003; Elton, 2003; Lozano, 2006; Tilbury, Crawley, & Berry, 2005). Universities and colleges also have a huge influence through their international procurement, through offshore partnerships, and through teaching national and international students. Indeed, their abilities impact on economic development (Boks & Diehl, 2006; Galang, 2010; Lotz-Sisitka, 2011).

Scholars have frequently called for sustainability education at a tertiary level (Amernic & Craig, 2004; Bebbington, 1997; Gray & Collison, 2002; Mathews, 1997; Thomson & Bebbington, 2005) as a means to incorporate sustainability accounting into mainstream financial reporting, management accounting, and auditing courses. There has also been much discussion on how to modify accounting (Gray, 2001, 2006b; Gray & Milne, 2002; Tinker, Neimark, & Lehman, 1991) to incorporate the principles of sustainability education into accounting education as a positive force. Martin and Steele (2010) believe that accounting education can be a key area that deeply and greatly impacts on sustainability. They add that accounting has a major impact on business sustainability thinking and actions. Owen (2008) suggests that such integration results in an active role, in practice, for accounting to measure corporate sustainability performance, to communicate this performance to stakeholders, and to change the thoughts, ways, and methods of management in running their business.

This PhD study argues in line with Gray and Collison (2002), Tilbury et al. (2005), Lozano (2006), Galang (2010), Tilbury (2011), Khan (2013), Gray (2013) and Gray (2019), that in order to equip organisations with a new generation of leaders who are able to end the adverse business practices and move to sustainable corporate practices, it is essential to bring change into the traditional accounting curriculum that focuses only on shareholders' wealth maximisation. These scholars believe that the accounting curriculum should include sustainability education to meet the needs not only of shareholders, but also of stakeholders, including the environment and society. This PhD study is conducted in the context of a developing nation—Jordan—and so the next section explains why Jordan was chosen for this study.

1.4 Research Context: Jordan

Jordan presents a good example through which to view the lack of sustainability accounting practices and education and to investigate the environmental consequences of Jordan's industries. Jordan has limited resources and those that it does have are seriously vulnerable to adverse industrial practices. These create unaffordable environmental consequences for Jordan

(World Bank, 2010). For example, air pollution accounts for 48% of Jordan's environmental degradation, followed by 35% of its water pollution, 10% of its waste pollution, 5% of its soil pollution, and 2% of its coastal zones pollution (World Bank, 2010). These consequences are a normal result of the absence of environmental legislation that has led to weak corporate social responsibility (CSR) reporting and weak implementation of sustainability and social responsibility accounting in the industrial zones of Jordan (Rahahleh & Sharairi, 2008).

Jordan has many environmental issues such as air and water pollution, limited freshwater resources, deforestation, overgrazing, soil erosion, and desertification (Central Intelligence Agency, 2016). Jordan has signed many international environmental agreements covering areas such as biodiversity, climate change, desertification, endangered species, hazardous waste, the law of the sea, marine dumping, ozone layer protection, and wetlands. However, none of these agreements has yet been ratified (Central Intelligence Agency, 2016). Although tertiary education in Jordan is well known as a pioneer in the Middle East, tertiary education, particularly business schools, does not embed sustainability education in its curricula.

Rahahleh and Sharairi (2008) believe that the lack of sustainability accounting education in Jordan is a contributory factor in the lack of sustainability accounting practices (i.e., insufficient accounting disclosure and lack of environmental management accounting implementations). Rahahleh (2011) further explains that there is a lack of clarity when implementing environmental management accounting in organisations located in Jordan. His study reveals that accountants and auditors are unfamiliar with such implementations, particularly when dealing with environmental issues. They, instead, simply implement the conventional financial accounting procedures and do not consider environmental accounting. It has, therefore, also been found that the annual reports of Jordanian industrial organisations lack numbers, percentages, or accounting disclosures related to the environment (Rahahleh, 2011). Although a degree of awareness regarding the importance of EMA application has been found, particularly in manufacturing companies, it is apparent that the EMA procedures of measurement, processing of accounting, and reporting are not applied (Rahahleh, 2011).

This lack of application has, in turn, increased adverse industrial practices in terms of Jordan's environment and society (Al-Kholy, 2004; Rahahleh & Sharairi, 2008). Sufficient scientific evidence of increased environmental issues in Jordan exists in relation of a combination of different factors such as the negative industrial practices, energy consumption, limited arable land, and increased population (Jaber, Badran, & Abu-Shikhah, 2004). As a result of successive

increases in demand, the limited natural resources in Jordan are undergoing unsustainable levels of exploitation which endanger the quality of life for the general public (Al-Rashdan, Al-Kloub, Dean, & Al-Shemmeri, 1999). Therefore, this study attempts to continue the work of the above researchers by investigating the issue of sustainability education in the accounting curriculum of universities in Jordan as a way to improve the future of sustainability practices in the industrial sector of Jordan. The thesis' most significant contribution will be the adoption of the salient stakeholder model of sustainability accounting education in Jordan to bring about more accountability, transparency, and sustainable business practices in society. The next section discusses the research importance of this study.

1.5 Research Importance

Emerging and less developed economies such as Jordan and the wider Middle East require corporate accountability and transparency (Belal, Cooper, & Roberts, 2013; Lawrence, Low, & Sharma, 2010). For example, in a developing country like Jordan, environmental degradation as well as industrial pollution due to its industrial revolution, are something society and other stakeholders (fauna and flora) have to live with on a daily basis (Abu-Allaban & Abu-Qudais, 2011; Al-Mulali & Ozturk, 2015). To mitigate such effects, scholars such as Owen, Swift, and Hunt (2001), Pachauri (2006), and Belal (2008) argue that business organisations should take responsibility and be accountable for their externalities. Deegan (2002), Schaltegger and Burritt (2010), and Lozano, Ceulemans, and Seatter (2013) believe that business organisations must move to more sustainable corporate practices to mitigate their adverse environmental and social consequences.

Research shows that accountants have a key role in improving corporate sustainability practices and that that role helps prevent future environmental problems (Bennett et al., 2012; Gray, 1992, 2006a; Marx & Van der Watt, 2013; Schaltegger, Bennett, Burritt, & Jasch, 2010; Sharma & Kelly, 2014). Accountants, however, need to be equipped with sustainability education if they are to face such environmental challenges (Gray, 2019; Kelly & Alam, 2009). Despite its potential and the need for sustainability education in accounting, most business schools are lagging behind and have not taken this trend seriously by including sustainability principles in their courses (Bebbington & Thomson, 2001; Fakoya, 2015; Sharma & Kelly, 2015). Taking into consideration that the education of corporate managers including CFOs—who are mostly accountants—is now one of the major influences on sustainability and that sustainability reporting is increasingly required by most stakeholders, the lack of sustainability

accounting courses in the accounting curriculum leads to hindrances in implementation and/or understanding of sustainability accounting in the corporate world (Khan, 2011). This viewpoint is supported by the consensus of different scholars who agree that the level of implementation and practices of sustainability accounting systems, including EMA, is low due to deficiencies in the academic knowledge of practitioners in the field (Burrirt, Herzig, & Tadeo, 2009; Christ & Burrirt, 2013; Doorasamy, 2016; Ferreira, Moulang, & Hendro, 2010; Schaltegger et al., 2010; Ván, 2012). More specifically, deficiencies exist in academic knowledge about EMA, in academic knowledge about EMA's potential for identifying inefficiencies in a production process and for benchmarking environmental costs.

While accounting schools internationally have been slow to respond to the global recognition that sustainability should be integrated into all educational disciplines (Khan, 2011; Mburayi & Wall, 2018), there has been an increasing number of studies over the last few years on the importance of sustainability accounting education and on how to incorporate sustainability into tertiary education. However, some of these studies have focused on individual courses and programmes (Brundiers & Wiek, 2011; Rusinko, 2010a; Stephens & Graham, 2010). While considerable international activity has been aimed at having sustainability issues integrated into the accounting curricula, particularly in the UK and USA (Khan, 2011), commensurate activity within the higher education sector of developing countries, including Jordan, has not been evident.

Jordan suffers from environmental degradation shaped by bad industrial practices. Nevertheless, sustainability accounting education is not provided nor seriously included in the accounting curricula of higher education institutions in Jordan (Al-Hazaima, Low, & Sharma, 2021). The researcher's comprehensive review of the accounting curriculum in all Jordanian universities shows that only one university, i.e., Al-Zaytoonah University, has included a stand-alone course in its curricula about CSR and environmental accounting; however, it is an elective course (Al-Zaytoonah University of Jordan, 2016). Sustainability accounting education is still limited in the Middle East region and is not provided in Jordan in particular. There is a lack of research in this area and it is that gap which this study aims to address. This topic is important to investigate because it helps in protecting a country (e.g., Jordan) from continuing environmental degradation, which requires future managers, including accountants, to be equipped with sufficient knowledge and skills relating to sustainability issues (Botes, Low, & Chapman, 2014). This study investigates the integration of sustainability education into the accounting curriculum of Jordanian business schools.

1.6 Research Aims and Questions

The main aim of this study is to explore the sustainability education environment in relation to the accounting curriculum of universities in Jordan. This study investigates the integration of sustainability education into the accounting curriculum of Jordanian business schools. The study has the following aims and related research questions:

- I. To investigate the perceptions of salient stakeholders towards sustainability education in the accounting curriculum of business schools in Jordan.
 1. How important is it to integrate sustainability education into the Jordanian accounting curriculum?
 2. What do salient stakeholders expect to find in the Jordanian accounting curriculum with regard to sustainability education?
- II. To understand the salient stakeholders' perceptions of the challenges and benefits of integrating sustainability education into the accounting curriculum.
 3. What are the challenges and benefits of integrating sustainability education into the accounting curriculum of Jordanian business schools?
- III. To develop a salient stakeholder-driven model that facilitates integrating sustainability education into the accounting curriculum.
 4. How can an integrated sustainability accounting model be developed in the Jordanian accounting curriculum?

The study adopts the salient stakeholder theory in its investigation. Salient stakeholder theory explains how salient stakeholders interact throughout their possession of power, legitimacy and urgency (Mitchell, Agle, and Wood, 1997). Thus, the adoption of salient stakeholder theory in this study helps to not only investigate the perceptions of Jordanian salient stakeholders, but also understand how Jordanian salient stakeholders play their roles to influence the integration of sustainability education into the accounting curriculum.

1.7 Research Methodology and Method

To explore the sustainability education environment in relation to the accounting curriculum of universities in Jordan, this study adopted the pragmatic paradigm that allows the researcher to choose freely and adopt different methods, worldviews, assumptions, and forms of data collection and analysis. Therefore, this study adopted an explanatory sequential mixed method. The study had two phases in which it employed a quantitative method under a positivist paradigm for the first phase and a qualitative method under the interpretivist paradigm for the

second phase. For phase one of this study, the researcher used a questionnaire survey to achieve the study's first aim. This method was deemed to be the best choice as it focuses not only on revealing the opinions of a wide group of people at the micro level, but also on their attitudes and wishes concerning a particular idea (Matthews & Ross, 2014). In the first phase, the researcher explored the perception of a wide group of stakeholders towards the importance of sustainability education and the importance of integrating sustainability education into the accounting curricula. The researcher personally distributed the questionnaires to the targeted sample and collected them himself after their completion. In phase one, the researcher employed IBM SPSS Statistics v.22 software for the statistical analysis (Bryman & Cramer, 2009). A final sample of 702 salient stakeholders including university accounting educators, accounting students, industry accountants, government representatives, and accounting association professional members was used to glean insight into their views and the extent to which sustainability is present in accounting education. For phase two of this study, the researcher conducted 46 semistructured interviews with representatives of the same groups chosen for phase one of the study (i.e., university accounting educators, accounting students, industry accountants, government representatives, and accounting association professional members). Data was analysed using the qualitative analysis software QSR NVivo. Thematic analysis was used. The quantitative and qualitative data was triangulated to develop the salient stakeholder model and address the last research question which asked how an integrated sustainability accounting model can be developed in the Jordanian accounting curriculum.

1.8 Thesis Outline

This thesis comprises 10 chapters. A brief overview of these chapters is provided below.

Chapter 1: Overview of the Thesis: This chapter provides an overview of the study and contextualises the study in terms of its background. It explains the research issue and importance, and states the research aims. It concludes with a summary of the methodology and method adopted for the study.

Chapter 2: Jordan at a Glance: This chapter addresses the scope of this study. It discusses the environmental consequences of industrial activities in Jordan which result from the Jordan's industrial organisations' lack of awareness regarding sustainability. It also investigates the current situation of sustainability education in general and sustainability accounting education in particular.

Chapter 3: Literature Review: This chapter provides a comprehensive review of the literature on sustainability, sustainability education, and accounting education. It also discusses approaches to integrating sustainability education into the accounting curriculum.

Chapter 4: Theoretical Framework: This chapter explains how the study uses salient stakeholder theory to understand the Jordanian salience role in influencing sustainability accounting education.

Chapter 5: Methodology and Method: This chapter discusses the methodology and method adopted for the study in detail and demonstrates the researcher's and the study's philosophical worldview. The chapter also discusses data collection and analysis methods including questionnaire surveys, semistructured interviews, and thematic analysis in depth.

Chapter 6: Questionnaire Survey Findings on the Importance and Expectations of Sustainability Accounting Education in Jordan: In this chapter, the findings of the questionnaire survey (stakeholders' answers) are presented and discussed. The results of the statistical analysis and findings form the basis for the second phase of this study. This chapter also shows how the questionnaire survey findings achieve the first aim of the study.

Chapter 7: Interview Findings on the Contextual Challenges of Sustainability Integration into the Jordanian Accounting Curriculum: In this chapter, the data collected from semistructured interviews is categorised and analysed. The findings here consider the potential challenges of integrating sustainability education into the accounting curriculum in Jordan.

Chapter 8: Interview Findings on the Contextual Benefits of Sustainability Integration into the Jordanian Accounting Curriculum: In this chapter, the semistructured interview data is analysed using thematic analysis. The findings, discussions, and interpretations in this chapter address the benefits of integrating sustainability education into the accounting curriculum in Jordan.

Chapter 9: Integrating Sustainability Education into the Jordanian Tertiary Accounting Curriculum: A Salient Stakeholder-driven Model: This chapter triangulates the quantitative and qualitative data to develop the required sustainability accounting education model in Jordan.

Chapter 10: Conclusion and Recommendations: This chapter summarises the overall study, provides the researcher's recommendations, and offers suggestions for further research.

Chapter 2

Jordan at a Glance

2.1 Introduction

This chapter presents the country context of this study and discusses the influential factors that may have an impact on the progress of sustainability, business, and education in Jordan. This chapter presents Jordan at a glance. It first introduces Jordan through its current demographical background. The chapter then discusses the economic situation of Jordan before discussing the impact of the country's religions and culture on sustainability. The chapter also highlights the challenges of progressing sustainable development in Jordan. The chapter discusses the status quo of Jordan's tertiary education and corporate sustainability practices. It explains the current issues regarding the accounting curriculum in Jordan's universities and the consequences of the lack of corporate sustainability practices. The chapter concludes with a summary.

2.2 Demographical Background

The Hashemite¹ Kingdom of Jordan is a small country with limited natural resources; however, its significance results from its strategic location as it is situated in the heart of the Arab world and the Middle East region (Robins, 2019). Jordan is strategically located as the holy land of the three divine religions: Judaism, Christianity, and Islam (British Broadcasting Corporation, 2016; ECOPEACE/Friends of the Earth Middle East (FoEME), 2014a). Jordan is surrounded by Syria to the north, both Iraq and Saudi Arabia to the east, and Saudi Arabia and the Gulf of Aqaba to the south. It is bordered on the west by both Israel and the Palestine² Authority (Jordanian e-Government, 2016). Jordan has only one sea outlet, the Aqaba Gulf, which gives Jordan access to the Red Sea (General Corporation for the Environment Protection, 1997). Figure 2.1 shows the political map of Jordan including its borders.

¹ The word "Hashemite" refers to the name of the royal family (The Library of Congress, 1989).

² Palestine is occupied by Israel.



Figure 2.1 *Political Map of the Hashemite Kingdom of Jordan*. Source: Extracted from Sharp, 2018.

Jordan occupies around 89213 km² and has a total population of 10,260,000 due to the increasing rate of Syrian migration, and this population is growing at a rate of 2.08% annually (Central Intelligence Agency, 2020; World Population Review, 2020). Jordan's capital is Amman and the country has one of the best climates in the Middle East. The official language in Jordan is Arabic, and English is the first foreign language. English is spoken in most of the country's higher education institutions (Jordanian e-Government, 2016). The next section presents an overview of the economic situation in Jordan.

2.3 The Economic Situation

According to the World Bank (2018), the economy of Jordan is in a low-growth scenario. The country's gross domestic production (GDP) was US\$38.8 billion in 2017, and its per capita income was US\$4098 for the same year. Jordan's GDP increased by 2.4% in 2018, however due to Covid-19 pandemic, the Jordan's economic growth decreased significantly to -3.5% of GDP in 2020 (World Bank, 2020). In 2012, the World Bank classified Jordan's economy as an "upper-middle-income country". The national debt of Jordan was US\$36.8 billion in 2016, and it is expected to reach US\$40 billion by 2022 (The Statistics Portal, 2018). Considering that Jordan's total population in 2016 was 8,185,384, the debt per capita was approximately US\$4496, and it has been increasing (World Bank, 2018). Jordan's external debt had reached about US\$27.72 billion by the end of 2017, compared to US\$26.38 billion in 2016 (IndexMundi, 2018).

Nevertheless, the country managed to develop different industries such as chemical and mining industries, despite scarce and limited natural resources of phosphates, cement, and potash and fertiliser derivatives (Jordan Chamber of Industry, 2018). The country depends on the tourism industry due to its good climate and its ancient attractions such as Petra. The country also depends heavily on foreign aid from Europe and the USA. Since the early 1960s, the USA alone has supported Jordan to the tune of more than US\$13 billion (The Embassy of the Hashemite Kingdom of Jordan-Washington, 2013). Tax revenues provide Jordan with another main source of income, and these amount to approximately 33.3% of total domestic revenue. Jordan is a member of several global organisations such as the United Nations, the World Trade Organisation, and the World Bank (U.S. Department of State, 2018).

Although Jordan is a developing market economy, the market value of the Amman Stock Exchange (ASE) is significant (Stock Market Clock, 2018). As of March 2018, the market capitalisation of the ASE was US\$23.41 billion; that accounted for 68.68% of Jordan GDP (Stock Market Clock, 2018). According to the United Nations on Trade and Development (2012), Jordan is classified amongst the top 15 countries attracting inflows of foreign direct investment (FDI). The ASE has a key role in bringing foreign inflows to the Jordanian market.

The Arab Spring uprisings in the Middle East, and particularly the war in Syria, have impacted badly on different financial fields in Jordan such as tourism, investment inflows, and the number of Jordanian remittances coming in from other countries in the Middle East (Sharp, 2018) which have until now formed a large proportion of the total income in Jordan. The war

in Syria has resulted in 65,5624 refugees. However, that number refers only to refugees who were registered by the U.N High Commission on Refugees as of January 2018 (Sharp, 2018). The government of Jordan claims that there are perhaps hundreds of thousands of unregistered refugees in Jordan (Sharp, 2018).

The status quo in Jordan's economy has increased the pressure on Jordan's natural resources, health services, education, transportations, infrastructures, and other fields of sustainable development. Jordan's society shares the same religions and culture as other Middle Eastern societies. As these societies are heavily influenced by their religions and culture, the following section discusses the impact of Jordan's religions and culture.

2.4 Religions and Cultural Impact

Jordan's constitution states that the country's religion is Islam (The Royal Hashemite Court, 1952). In terms of Jordan's population, 97.2% are Muslims and about 2% are Christians, with only less than 1% belonging to other religions (Sharp, 2018). Jordanian people are heavily influenced by their religions, cultures, and traditions which are largely similar to those in other Middle Eastern countries (Kamla, 2007) to the extent that religion in addition to the country's laws and regulations plays a major role in Jordanians' lives. Islamic principles can be found in people's daily life, and such principles form their heritage (Robbins & Rubin, 2013). The constitution in Jordan, however, has stressed that any regional discrimination in citizens' rights is a criminal act that deserves punishment. Islam is the dominant religion in the Middle East and people have a strong loyalty to it (Faksh, 1997; Kamla & Rammal, 2013).

Jordanian stakeholders' preferences and choices are influenced by their religion, heritage, and culture which are very similar, if not identical, to those of other Middle Eastern people (Alsharari, 2017). People in Jordan will support and accept decisions that are acceptable in Islam and decline those that are against Islamic principles. In other words, decisions that accord with Islam in Jordan gain legitimacy from the Jordanian society as accepted, good norms. The decision to integrate sustainability into Jordanian accounting education is, therefore, expected to be supported by Jordanian stakeholders because all divine religions call for the protection of the environment and society, which is the purpose of sustainability.

Divine religions believe that every single thing in this massive universe is God's creature and we, the people, are delegated by God to rule the world, but according to his instructions (ECOPEACE/Friends of the Earth Middle East (FoEME), 2014b). These instructions state that humans must protect God's creatures, the environment, and societies; humans must not hurt

each other or misuse the earth's natural resources (ECOPEACE/Friends of the Earth Middle East (FoEME), 2014a). Thus, the divine religions strongly encourage sustainability and sustainable development and do not support the adverse practices of industry towards the environment and society. Therefore, the Jordanian stakeholders participating in this PhD study may support sustainability accounting education due to their religious background. Kamla (2005) and Kamla, Gallhofer, and Haslam (2006) believe that Islamic principles are suggestive of many different implications for sustainability, governance, and accounting. Despite the strong influence of religions on people's behaviour, Kamla (2009) argues that capitalism and globalisation play a key role in hindering Islamic emancipatory alternatives and initiatives in accounting and finance. For example, despite the influence of religions in Middle Eastern Arab countries, social religious aspects do not exist in the disclosure of organisations operating in these countries (Kamla, 2005). Tilt and Rahin (2015) argue that the current Islamic literature is unclear regarding the models of corporate social reporting.

The divine religions impact not only on support for sustainability principles, but also education. For example, Hassan et al. (2010) believe that the Islamic philosophy of education considers the human being's spiritual and material dimensions. The Islamic approach to education focuses on providing humans with opportunities for a better material life. Khan and Sheikh (2012) suggest that Islam views beneficial education as that which guarantees effective benefits in different fields of life. In other words, Islam encourages education that aims to improve people's lives. This viewpoint is also compatible with sustainability education's aim to create a higher social standard of living. Thus, the Jordanian stakeholders may support sustainability accounting education due to their regional and cultural background, and accordingly, give the education providers in Jordan the legitimacy to take decisions related to it. The next section discusses the challenges of sustainable development in Jordan.

2.5 Overview of Sustainable Development Challenges in Jordan

Sustainable development in Jordan is challenging. Jordan is surrounded by the regional political conflict in the Middle East, and this has impacted on its sustainable development. Jordan is surrounded by Syria, Iraq, Israel, and the Palestine Authority, where political instability and conflict strongly exist. The crises in the region continue to badly impact Jordan's sustainable development. The influx of Syrian refugees and the long-lasting nature of the crises in the Middle East have pushed Jordan's capacity to its limits, impacting all aspects of life in the country. According to the Ministry of Planning and International Cooperation (2017), this

situation has resulted in heightened needs, increased security and military pressures, increased budgetary costs, limited economic growth, increased unemployment and poverty, increased public debt, and a drop in exports. Regional and global geopolitical and security developments have also impacted investors' confidence, tourism, exports, and public finance. Overall, these issues have impacted Jordan's path to sustainable development and placed social coherence at serious risk. Because of these sustainable development challenges related to the regional political conflict in the Middle East, Jordan's ranking on the Human Development Index fell from seventy-seventh out of 187 countries in 2015 to one hundred and second place in 2020 (Human Development Index, 2020). Jordan's sustainable development also faces other challenges including the high unemployment rate, especially amongst women and youth, women's limited economic and political participation, and water shortage (EcoMENA, 2020).

The Ministry of Planning and International Cooperation (2017) confirmed four major issues as critical for Jordanians. These are: first, bridging the gap between education and the labour market and supporting entrepreneurship to reduce unemployment; second, resisting stereotypes to achieve gender equality and decrease disparities (e.g., geographical) and to reduce poverty and ensure access to public services; third, enhancing accountability, respecting human rights, and contributing to regional stability; and fourth, enhancing awareness on environmental issues, promoting renewable resources, and addressing water scarcity. Jordan suffers from harsh water scarcity.

According to the Ministry of Water and Irrigation (2014), Jordan is one of the world's most water-starved countries and faces increasing deterioration in both the quality and quantity of its water resources. The problem of water is a huge issue for Jordan. Jordan is one of the world's poorest countries in terms of water availability (Nortcliff, Carr, Potter, & Darmame, 2008). It has the lowest levels of water resources availability in the world, and it is expected that by 2050 the demand for water will exceed resources by more than 26% (Montgomery, 2015). Climate change is one of the factors that has led to scarcity in water resources, as water experts in Jordan expect a decrease in water availability of about 30% in 2034 due to climate change (Ministry of Water and Irrigation, 2014).

Despite all these challenges, Jordan is continuing to make comprehensive and evolutionary reforms to sustain resilience, with increasing prosperity for the people of Jordan (Ministry of Planning and International Cooperation, 2017). For example, regarding political reform, the government of Jordan has for the first time held decentralisation elections in an attempt to move

forward to decentralisation and greater citizen participation of the decision-making process. As regards economic reform, Jordan has launched a new 10-year socioeconomic plan entitled “Jordan 2025: A National Vision and Strategy” aimed at achieving a prosperous, resilient, and inclusive economy. On the humanitarian side, Jordan continues to act as a model in its treatment of the refugee crisis.

Nevertheless, despite the various reforms that Jordan is trying to make, the country continues to suffer from several serious sustainable development challenges. The four critical issues that Jordan is attempting to address (mentioned above) include the need for sustainability awareness and better education that bridges the gap between education and the labour market. Addressing the quality of education is believed to be one of the important sustainable development goals disclosed in the annual reports of developing countries (Gunawan, Permatasari, & Tilt, 2020). Sustainability accounting education is believed to be one way to enhance Jordan’s ability to create sustainable development. The next section discusses tertiary education in Jordan.

2.6 Tertiary Education in Jordan

Despite its limited financial resources and national burdens, Jordan is clearly distinguished in the Middle East region through its establishment of scientific institutions (Ministry of Higher Education and Scientific Research, 2016). Tertiary education in Jordan has been the priority of the State because of the key role it plays in raising the economic, social, and knowledge level of its citizens (Ministry of Higher Education and Scientific Research, 2016). Half a century ago Jordan began establishing universities and institutes that built on advanced scientific knowledge (Ministry of Higher Education and Scientific Research, 2016). Compared to other Arab countries, Jordan is a pioneer in terms of its educational spending as a percentage of its GDP (World Bank, 2016).

The report of the Committee of Educational Policy in Jordan was issued in 1986. The report highlighted that the pedagogical policy of Jordan is based on principles derived from the following: the country’s Islamic and national heritage; the objectives of the great Arab Revolution; the Constitution of the country; and, national experience with its political, economic, and social dimensions. These principles helped education planners to succeed in developing the primary guidelines for Jordan’s tertiary education (Ministry of Higher Education and Scientific Research, 2016).

In the last decade, the tertiary education sector has witnessed considerable progress in terms of the variety of study programmes and patterns of teaching and learning that monitor the quality

and quantity and expansion of tertiary education institutions (Seijaparova et al., 2004). Consequently, many public and private universities have recently been established. These augment the two regional universities—the World Islamic Science and Education University and the Arab Open University—that operate in Jordan. In all, Jordan has 10 public universities, 19 private universities, and 51 community colleges (Ministry of Higher Education and Scientific Research, 2016). Jordan’s tertiary education sector also has many offshore partnerships as a result of programmes that emerged from cooperation agreements between Jordan and overseas universities (Bataineh, 2008; Ministry of Higher Education and Scientific Research, 2016).

As a result, the number of students enrolled to study at the bachelor’s level has increased significantly. It is estimated that Jordan’s public and private universities have nearly 236,000 students, 28,000 of whom are of Arab or foreign nationality (Ministry of Higher Education and Scientific Research, 2016). According to the latest statistics for 2017, 11,023 students were enrolled in accounting in Jordan’s business schools. Of those, 4,924 were female students (Ministry of Higher Education and Scientific Research, 2018).

Moreover, the issuance of the new law on higher education No. 23 in 2009 and the Jordanian university law No. 20 for the year 2009 has enhanced the independence of Jordanian universities and allowed them to become more powerful in controlling both administrative and financial matters (Ministry of Higher Education and Scientific Research, 2016b). The aims of tertiary education in Jordan under these laws have been summarised and are shown in Table 2.1 (next page).

The Higher Education Accreditation Commission (HEAC) instructs universities to achieve the abovementioned aims of higher education in Jordan. The HEAC is the primary quality controller for tertiary education in Jordan. It is responsible for setting and monitoring the quality of programmes at both public and private universities and colleges in Jordan. The HEAC sets specific fields of knowledge for each university discipline³; all core courses of a discipline must fit into its related fields of knowledge (Maali & Al-Attar, 2020). The HEAC has the authority to provide accreditation for a private university and to take it away from a provider if a certain standard or law is breached (Hussein, 2014).

³ See Appendix 1 to view the fields of knowledge for the accounting discipline in Jordan.

Table 2.1 *The Aims of Tertiary Education in Jordan*

Number	Aims to achieve
1	Preparation of qualified human resources who are specialised in various fields of knowledge to meet the needs of the community
2	Deepening the Islamic faith, its ethics and spiritual values, and enhancing the sense of national belonging
3	Supporting the democratic approach and enhancing it to ensure academic freedom, the right of expression, and respect for others' opinions, teamwork, and accountability and following the scientific critical thinking
4	Providing an academic, research, psychological and social supportive environment appropriate for innovation, excellence and the burnishing of talents
5	Increasing interest in the national heritage, national culture, world cultures, and students' general culture
6	Accrediting the Arab language as the scientific and educational language in all stages of higher education, and encouraging scientific writing using Arabic, and translation from and into Arabic, considering English as a second and supportive language in this case
7	Contributing to the development of knowledge in the areas of science, literature, the arts, and others
8	Developing knowledge of students (whose study was in at least one foreign language) in their respective fields of education and helping them to acquire the appropriate skills to use information technology in these fields
9	Encouraging, supporting, and upgrading scientific research, especially the applied scientific research aims of community service and development
10	Establishing a scientific, technical, and national nucleus capable of developing scientific research and technology outputs
11	Creating a coherent institutional link between the public and private sectors on the one hand, and the institutions of higher education on the other, to take advantage of the qualified human resources in these institutions in order to develop these two sectors, through consultation and applied scientific research
12	Enhancing scientific, cultural, artistic, and technical cooperation in the field of higher education and scientific research with other countries, international organisations, Arab Islamic and foreign organisations, to coincide with the expansion of such cooperation in modern and developed directions

Summarised from “Ministry of Higher Education & Scientific Research”, 2009
<http://www.mohe.gov.jo>

The graduation requirements for the bachelor's degree are fulfilled if the student passes all the required credit hours (European Commission, 2012; Fraij, 2012). In general, the structure of any bachelor's curriculum is divided into three sections (European Commission, 2012). Take, for example, Yarmouk University in Jordan⁴; the first section of its curriculum represents the university requirements. These are papers that all the university students must study. These papers are very general and taken from different faculties and majors of study such as languages, religions, military sciences, and computer sciences. The number of credit hours laid down in the university requirements section is 27 hours, with every 3 hours forming one paper (27 credit hours = 9 papers).

The second section of the curriculum relates to the college requirements. In this section, the student has to study 24 credit hours (8 papers) taken from the faculty he/she belongs to. For an accounting student, for example, these papers could include papers entitled Fundamentals of Management for Business Schools, Marketing, and Economics. The third section refers the department requirements. Students must complete 81 credit hours (27 papers); these papers all represent the core of the student's major of study. For an accounting student, these are papers on topics such as management accounting, cost accounting, and audit. The total number of credit hours for the three sections is 132, which represents the graduation requirements.

Taking the structure mentioned above into consideration, each university writes its own curriculum; while these are all similar to each other, they are not identical. All curricula in Jordan are developed and confirmed in three steps. First, and considering the requirements of HEAC, the department discusses and proposes the curriculum. Second, the curriculum is submitted to the relevant faculty council for more discussion. Third, the curriculum is submitted to the Dean's Council where it will be approved (European Commission, 2012).

This structure of curricula, including the accounting curriculum, is set to meet the accreditation requirements of the HEAC. For the accounting education programmes in Jordan, the HEAC has determined three fundamental requirements that need to be covered over a minimum of 3 years (Hussein, 2014). These requirements are first, maintaining a written curriculum with 132 credit hours; second, including certain foundation courses; and, third, having a sufficient number of academic staff based on the number of accounting students (Hussein, 2014). The

⁴ Yarmouk University is one of the biggest public universities in Jordan, and it is well known in business studies. The researcher obtained his bachelor's degree in accounting from this university, and so he understands its accounting curriculum well. See Appendix 2 to view the accounting curriculum for Yarmouk University as an example.

HEAC's mission is to guarantee the quality assurance of curricula under the accreditation process. The Higher Education Council and the Council of Ministers in Jordan signed the National Strategy for the Development of the Higher Education and Scientific Research (Ministry of Higher Education and Scientific Research, 2016). The Ministry of Higher Education focused on monitoring and evaluating tertiary education and scientific research strategy for the years 2007-2012. The key performance indicators of the strategy of tertiary education in Jordan are based on the percentages of student enrolments, faculty members, financial governance support, turnout for expansion of private universities, and the commitment of the HEAC to international standards of quality assurance in public and private universities (Ministry of Higher Education and Scientific Research, 2016).

Through the accreditation and quality assurance key performance indicator the strategy focused first, on modernising the plans of study and the academic programmes; second, on hiring well-qualified educators who can teach using different and professional ways and methods; and third, on setting general and specific standards of accreditations for all Jordanian universities and colleges. In other words, this key performance indicator of accreditation and quality assurance underpins the need to develop and the importance of developing curricula as well as pedagogy, since this improvement would impact significantly on the overall quality of Jordanian tertiary education. The following section discusses some of the issues that the accounting curriculum in Jordan faces.

2.6.1 Issues in Accounting Curriculum in Jordan

Generally speaking, the curricula of most study disciplines in Jordan are strongly influenced by Western curricula (Khader, 2010), and this influence creates a gap in terms of the relevancy of the curricula to the Jordanian context. Accounting education in Jordan has been heavily influenced by Western accounting education systems such as those in the USA and the UK (Hutaibat, 2005), where most Jordanian academics and researchers gained their degrees (Al-Akra, Ali, & Marashdeh, 2009; Hutaibat, 2005). However, accounting educators have to teach materials that serve only shareholders, and so they teach only particular chapters of the USA and UK accounting textbooks. Chapters in these textbooks that discuss sustainability-related issues are ignored because they do not fit the knowledge fields imposed by the HEAC.

The Jordanian system of accounting education adopts the accounting theory and practice of the United States and the United Kingdom in its curricula (Al-Akra et al., 2009). The curricula include courses on, for example, principles of accounting, auditing, management accounting,

and international accounting standards. These courses, which are set by a faculty of business and department of accounting, have no relation to any professional accounting body in Jordan, and they are similar to the course outlines and titles of the same courses offered in the USA and the UK (Nassar, Al-Khadash, & Mah'd, 2013). Accounting research and studies in the universities of Jordan merely translate, and introduce, Western techniques and accounting curricula (Berg & Nenova, 2004).

The high unemployment rate in Jordan points to the irrelevance of the tertiary education curricula of most disciplines in the context of Jordan. The unemployment rate for graduates is higher than the rate for those who have a lower level of education (World Bank, 2017). Khader (2010) and Hawkins, Ruddy, and Ardah (2012) argue that Jordanian tertiary education is irrelevant to the country context and that this irrelevance has produced a gap between education and practice. Students nowadays are not qualified enough and lack the skills required to fulfil the need of industry (Alia, 2014). This mismatch is confirmed not only in Jordan, but also in the whole the Middle East. Alia (2014) believes that individuals cannot rely on tertiary education in the Middle East, particularly in developing countries, to win the ideal job they want.

Some scholars have investigated the business and accounting curricula in Jordan (see, for example, Abu-Hola & Tareef, 2009; Bataineh, 2008; Batarseh, 2011). These studies emphasised the need for more relevant and practical curricula in Jordan. They concluded that the Jordanian business curricula are irrelevant or that their relevance is minimal to the business worldwide context. In other words, these curricula do not provide students with real examples from the business world, which indicates that pedagogy is another issue in Jordan.

All universities in Jordan are narrow in terms of their ways of teaching (Maali & Al-Attar, 2020). Their prime and only focus is on examinations. Examinations are used to grade 90% of student performances, with 10% being allotted for students' participation and attendance (Maali & Al-Attar, 2020). All the universities in Jordan take this approach to student assessment. While most of the textbooks used to teach accounting are imported from the USA, faculty members use a mixture of Arabic and English when lecturing.

Tertiary education in Jordan pays special attention to English. The use of English is viewed not only by tertiary education but also by most members of society as an essential language due to its importance when it comes to job recruitment and gaining access to current knowledge (Sabbour, Dewedar, & Kandil, 2010). In other words, English-speaking students enjoy a high

competitive advantage in terms of being hired by leading organisations worldwide. In addition to the lack of Arabic textbooks in business and accounting disciplines (Nusair, 2013), the dominance of English has led most universities in Jordan to adopt English as the official language used in teaching. This scenario results in the need for an English curriculum. However, Hamid (2009) and Kamla (2015) assert that the overuse of English textbooks will eventually isolate students from their own Arabic society, culture, reality, and context. They also argue that students' academic performance will considerably improve if they have the chance to use their mother language.

With regard to sustainability education in the accounting curricula, the researcher's comprehensive review of the accounting curriculum in all Jordanian universities revealed that only one university has included an elective stand-alone course on corporate social responsibility in its accounting curriculum. The fact that there is a lack of sustainability education suggests that its omission has led to many adverse industrial practices in the workplace which have an effect on both the environment and society. The next section provides evidence and discusses the consequences of the lack of sustainability practices in Jordan.

2.7 The Lack of Sustainability Practices in Jordan and its Environmental Consequences

Jordan faces different environmental issues (Central Intelligence Agency, 2020). While Jordan has signed many international environmental agreements, none of these agreements has yet been ratified (Central Intelligence Agency, 2020). The lack of sustainability education in business and accounting curricula is a contributory factor in the lack of sustainability practices (i.e., insufficient accounting disclosure and lack of environmental management accounting implementations) (Rahahleh & Sharairi, 2008).

During the past two decades, Jordan has experienced a significant change in its industrial sector in which more structural, institutional and financial changes have been applied (Jaber et al., 2004). These changes are evident in the privatisation of government organisations such as the power subsector, telecommunications, and several major industries. Yet, the government's share of large industries and energy institutions remains high (Jaber et al., 2004). Such changes, along with the absence of environmental legislation, have led to negative impacts on the local environment. While one of Jordan's primary objectives is to increase the quantity and value of exports and to sustain economic growth, little or no respect has been paid to environmental protection or to the adverse impacts of growth in terms of Jordan's future environment (Jaber

et al., 2004). The expansion of industrialisation as an economic base in Jordan has resulted in numerous environmental problems such as water, land, and air pollution (Jaber et al., 2004).

The government of Jordan is aware that establishing strong environmental policies will positively and directly impact on the sustainable development of the country (Al-Rashdan et al., 1999). For example, reducing pollution will cost more, yet cutting waste means greater efficiency and lower costs in the long run (Jaber et al., 2004). However, there is a lack of information about which situations to assess and how to anticipate emerging environmental problems and their impact on both the economy and society in Jordan. This lack of understanding and information results in high levels of uncertainty when making decisions (Al-Rashdan et al., 1999).

Most of Jordan's existing industrial complexes and power plants were established between the 1970s and 1980s, a time when there were no effective environmental regulations. Most of the power plants and factories in Jordan are operating without any environmental control (Jaber et al., 2004). For example, large industrial plants and power stations in Jordan have chimneys with an average height of 45 to 55 metres (Mohsen & Jaber, 2003). However, a few new industries and modern power stations do consider environmental issues. For example, the Aqaba Thermal Power Plant was designed to limit the concentration of ground-level pollutants.

Humans as well as fauna and flora are adversely influenced by the air pollution that results from industrial activities in Jordan. Industrial air pollutants in Jordan include the high sulphur content of the fuel they consume, the use of leaded petrol, immoderate consumption of energy, uncontrolled waste, and waste treatment plants (Hadadin & Tarawneh, 2007). The cities in the Amman-Zarqa region are the most vulnerable in terms of air pollution as they are industrial spots in Jordan. These cities are home to vital static sources such as manufacturing plants, refineries, mines, gas stations, and domestic areas (Hadadin & Tarawneh, 2007). High rates of primary energy consumption and the growing use of heavy oil and diesel fuels have also resulted in air pollution in urban areas (Jaber et al., 2004). Most of Jordan's industrial activities and power plants use heavy oil that contains high levels of sulphur. Such oil accounts for more than 40% of national consumption demand, and it is used to produce approximately 88% of the total electricity generated. Due to the high cost of flue gas desulphurisation systems neither old nor new power factories can afford to install them (Jaber et al., 2004).

Petroleum refining also produces significant volumes of oily sludge during both oil production and its processing activities. Total petroleum hydrocarbons are the most harmful ingredient of

oily sludge because of their hazardous impact on human beings and the environment (Tahhan & Abu-Ateih, 2009). Jordan's only oil refinery stores the oily sludge produced by its operations in concrete-lined pools. This practice results in the accumulation of large quantities of this material which then exceed the industry's capacity to safely store and dispose of it (Tahhan & Abu-Ateih, 2009). Furthermore, the steps involved in producing, transporting, and disposing of the oily sludge result in the spilling of oily sludge across massive areas of soil (Tahhan & Abu-Ateih, 2009). Another environmental concern is the increasing pollution contributed by heavy metals (Al-Khlaifat & Al-Khashman, 2007). Particularly, the growth in industrial activities is intensifying the emission of such pollutants into the environment and introducing various types of hazardous materials which cause high levels of air pollution into the atmosphere (Celik, Kartal, Akdoğan, & Kaska, 2005; Onder & Dursun, 2006).

Heavy metals such as copper, iron, zinc, and cadmium are primary components in many industrial processes. Such metals can be released not only into the air, but also into the soil and plants (Jaradat & Momani, 1999). The toxic effects of such heavy metals on humans, animals, and plants were proven a long ago. For example, studies show that the high levels of heavy metals contamination which accumulate in roadside soil, plants, and air poison many thousands of humans every year, especially people in the urban areas where the industry is heavily concentrated (Stigliani & Spiro, 2003; Yoon, Cao, Zhou, & Ma, 2006).

The road surfaces, plants, soil, and air are all polluted in Jordan as a result of the heavy metals used in the industrial process (Jaradat & Momani, 1999). The modern city of Aqaba is an exporter city of phosphate, cement, potash, and petrochemicals, and so it is the site of a group of the most important industrial activities in Jordan. Thus, industrial emissions are the major source of metal pollution in Aqaba's atmosphere (Al-Khlaifat & Al-Khashman, 2007). Additionally, the cement industry is known to be a source of substantial atmospheric anthropogenic metal pollutants. This industry is an essential contributor of dust, sulphur oxides, nitrogen, and carbon monoxide in industrial and urban areas (Abu-Allaban & Abu-Qudais, 2011). In Jordan, new cement factories have recently been constructed, particularly in Badia⁵. Cement dust accumulation has caused environmental consequences such as the death of shrubs and herbs and thereby destroyed the entire ecosystem in Badia (Abu-Allaban & Abu-Qudais, 2011).

⁵ Badia is a region that receives less than 150mm of rain per year.

Furthermore, a cement factory located in southern Jordan has affected the surrounding areas. It has been found that the areas around and near this factory contain very high levels of accumulated heavy metals that exceed the acceptable levels and standards. Thus, this factory is viewed as the main contributor of metal pollutants in southern Jordan (Al-Khashman & Shawabkeh, 2006). Moreover, industrialisation as well as urbanisation has contributed to the destruction of many resources such as trees and plants that are native to Jordan. The use of agricultural chemicals, and the random disposal of plastics and other dangerous wastes has contaminated the environment and made the agricultural system in the country static (Hadadin & Tarawneh, 2007). In the absence of approved use of national land, an unacceptable intersection between industrial and urban areas exists (Hadadin & Tarawneh, 2007).

Finally, water poses significant types of environmental problems in Jordan in the form, for example, of water pollution and sewage that endangers both public health and agriculture (Al-Rashdan et al., 1999). Rainfall across Jordan is scarce and uneven, which leads to limited surface and groundwater resources. These are insufficient to fulfil the needs of domestic consumption and agriculture and industrial uses (Hadadin & Tarawneh, 2007). Jordan is ranked second in the world in water scarcity (Aboelnga et al., 2018; Saidan, Al-Weshah, & Obada, 2015). Jordan is classified as being a semi-arid region (Al-Weshah, Saidan, & Al-Omari, 2016; Saidan et al., 2018). Aquifers supply nearly two-thirds of Jordan's water need, and this supply is not sustainable (Whitman, 2019). The high levels of water consumed by agriculture and Jordan's industries have caused a great many shortages and endangered the country's water supply.

Industrialisation has led to the depletion of aquifers and also to the contamination of the country's declining water supplies (Tahhan & Abu-Ateih, 2009). This overexploitation results from the inappropriate wastewater treatment capacities of Jordan's industries; locating industrial plants near to or directly upstream from drinkable supplies of water; and, the misuse and overuse of insecticides, pesticides, fungicides, and fertilisers that lead to the contamination of surface and ground resources of water through runoff (Tahhan & Abu-Ateih, 2009). One of the most critical issues about the industry in Jordan is that it relies on fresh water that could be used for domestic purposes. The Jordanian industrial sector uses 4% of water (Water in the Middle East, 2016), and this percentage is even insufficient for industrial development (Saidan, 2020). Despite the water shortage in Jordan, the industrial water demands continues to increase, and the negative environmental impact of industrial wastewater is not realised by the Jordan's industrial sector (Saidan, 2020). The industrial water demand in Jordan was expected to

increase to approximately 120 million cubic meter in 2020 (Water in the Middle East, 2016). However, the industrial water management is yet not addressed in Jordan's Water Strategy 2016-2025.

The Zarqa River receives considerable amounts of industrial effluents that make it unsuitable for irrigation or domestic use (Al-Khlaifat & Al-Khashman, 2007). Furthermore, industries such as pharmaceuticals and petrochemicals that discharge untreated waste are threatening the tributaries of the largest surface reservoir in Jordan, the King Talal Dam reservoir (Fandi, Qudsieh, Muyibi, & Massadeh, 2009) because they increase the levels of industrial pollutants (Al-Wer, 2009). There are no benefits to Jordanians from using a water supply that contains high levels of metals and chemicals. The River Jordan, one of the holiest places for Christians and Jews, has almost been destroyed; 96% of its flow has been diverted (ECOPEACE/Friends of the Earth Middle East (FoEME), 2014b). Its little remaining water is polluted with saline and untreated sewage. The valley's wetlands have dried up and half of its biodiversity has been lost. This is a man-made disaster, and it hurts all Jordanian citizens as well as Christians and Jews worldwide.

Accounting has a key role⁶ in mitigating such sustainability issues of Jordan through better corporate sustainability practices. For example, accounting can help to increase accountability and transparency by enhancing the role of the society in criticising adverse corporate practices (Gray, 1992). Accounting also provides useful information on the impacts of corporate activities on both the environment and society (Schaltegger and Burritt, 2010). Through sustainability reporting, accounting can report the results and interactions of corporations' activities related to the planet and humankind; making corporate sustainability traceable and manageable (Özsözgün Çalışkan, 2014). However, using accounting as a tool to support corporate sustainability practices requires accountants equipped with sustainability education, skills and competences (Botes et al., 2014; Gray, 2019).

Although Jordan suffers from environmental degradation shaped by bad industrial practices, sustainability accounting education is not provided nor included in the accounting curricula of higher education institutions in Jordan. This omission creates the gap that this study attempts to address. Since the protection of a country such as Jordan from continuing environmental degradation requires future managers, including accountants, to be equipped with sufficient knowledge and skills relating to sustainability issues (Botes et al., 2014), the present study

⁶ The role of accounting in supporting better sustainability practices is discussed in chapter 3.

attempts to offer new tertiary education curricula which can provide accounting students with the required knowledge and skills to be ideal managers in the future.

2.8 Summary

The Hashemite Kingdom of Jordan is a small country with limited natural resources located in the heart of the Arab World and the Middle East. Its resources are vulnerable to adverse industrial practices. Although sustainability and education are important in Jordan's religions and culture, sustainability practices are very low and often completely lacking. The political conflict in the Middle East region has placed pressure on Jordan and has led Jordan to suffer from a lack of sustainable development. Jordan faces several challenges related to sustainable development. This study argues that sustainability accounting education can be part of the solution to address these challenges in Jordan.

Chapter 3

Literature Review

3.1 Introduction

This chapter reviews the literature on sustainability accounting education. The chapter has two main sections. In the first section, sustainability is defined. The chapter presents the current state of sustainability accounting education in the Middle East and then discusses how accounting can support corporate sustainability practices and reporting and the role of tertiary education in supporting better sustainability practices. The chapter highlights the importance of sustainability education in the business and accounting curricula and its value relevance for future managers. The literature review identifies a gap relating to integrating sustainability education into business and accounting curricula. The second section of the chapter discusses approaches and frameworks for integrating sustainability education into the accounting curriculum. The chapter then presents some prior empirical studies on the perception of stakeholders towards integrating sustainability education into business and accounting curricula. The chapter concludes with a summary of the knowledge gaps in the area of sustainability accounting practices and education.

3.2 Defining Sustainability

Sustainable development was initially defined by the Brundtland Commission as “development that meets the needs of the present without comprising the ability of future generations to meet their own needs” (Brundtland, 1987, p. 8). The International Institute for Sustainable Development (2013) suggests that this definition highlights two important notions. First, it underlines the needs of a society that should be met without exploiting the future needs of coming generations. Secondly, it underlines the difficulty of consuming the world’s limited resources without threatening the ability of future generations to meet their needs. However, Brundtland’s definition (1987) has been criticised for being too broad and ambiguous (Williams, Wilmshurst, & Clift, 2011).

Some scholars argue that sustainability is difficult to define. For instance, Dahlsrud (2008) argues that sustainability and its related concepts such as corporate social responsibility (CSR) are elusive and difficult to define. The literature shows numerous definitions of sustainability.

Approximately 300 definitions of sustainability and its related concepts can be found in the literature (Santillo, 2007). White (2013) argued that it is difficult to perceive sustainability due to the evasiveness of its meanings and suggests that it can mean different things to different people. This difficulty in perceiving what sustainability means led scholars such as McKernan (2007) to believe that the issue of sustainability would be trivialised and demeaned. Nevertheless, Van Marrewijk (2003) believes that all definitions of sustainability are somehow similar and that they reflect in many different ways the level of awareness, growth, and aspiration, as do other similar keywords, within an organisation. Siew, Balatbat, and Carmichael (2013) indicate that there has been a global consensus on the various definitions of sustainability because different terms such as corporate sustainability, sustainable development, triple bottom line, nonfinancial, environmental, and social and governance information, corporate citizen, and CSR are synonymous with the word 'sustainability'.

Schaltegger and Burritt (2010) explain that sustainability accounting is defined as a sub-branch of accounting that deals with business activities and systems to save, analyse, and report the financial effects shaped by the environmental and social factors of an economic system. They also explain that sustainability accounting deals with ecological and social impacts, that is, the interactions and relationship between social, environmental, and economic issues that form the three main dimensions of sustainability. Education for sustainable development is defined as "a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities" (UNESCO, 2014, p. 18). The next section discusses the current state of sustainability education and practices in the Middle East region.

3.3 Sustainability Accounting Education and Practice in the Middle East

In Middle Eastern countries sustainability accounting education is very rare. Very few studies have investigated sustainability accounting education or related subjects such as social accounting and accounting for stakeholders, particularly in English. Nevertheless, in the Syrian context both Gallhofer, Haslam, and Kamla (2009) and Kamla, Gallhofer, and Haslam (2012) found that key stakeholders have a concern that the quality of accounting education provided to Syrian students is low and that accounting education does not provide students with the necessary skills to compete in the global market. The key stakeholders in these studies believe that the Syrian accounting curriculum needs to be changed to address contemporary issues relating to accounting worldwide. Alia (2014) argues that accounting graduates in the Middle East cannot compete worldwide due to inadequacies in their accounting curriculum. Alia

(2014) finds that the curriculum is not fully dedicated to accounting and lacks contemporary issues of accounting such as sustainability education. According to Luomi, Crist, Alam, and Shakir (2014), only two universities in Qatar provide general environmental sustainability education courses in their business schools.

Notably, the lack, if not absence, of sustainability accounting education in Arab Middle Eastern countries has been accompanied with lack of, and poor, corporate sustainability practices in the region. Rana, Vinoba, and AlHumaidan (2017) indicate that most of the MENA region is known for its political instability and dependence on foreign expertise and skilled labour. The MENA region also suffers from natural and operational challenges such as a shortage of water, and negligence in environmental issues. For example, Issa and Al Abbar (2015) indicate that business organisations operating in the Middle East lack sustainability practices and awareness. Rana et al. (2017) argue that increasing awareness of renewable energy sources results in reliable, sustainable, and affordable energy services. Sustainable management of renewable resources is weak in the MENA region, although the region depends on oil and gas as a major source of income.

Kamla (2005) suggests that sustainability initiatives within the Middle East focus on the business case for sustainability and target mainly the economic dimension of sustainability. For example, Dubai (UAE) held the first Middle East Corporate Social Responsibility Summit in April 2003. The summit discussed issues relating to how to use CSR as a defensive mechanism to ensure stability and increase stock price. Kamla (2005) argues that accounting practices and education in the Arab countries of the Middle East have been influenced by those in Western developed countries as evidenced by the fact that most Arab countries adopt the International Accounting Standards (IASs). Joshi and Ramadhan (2002) argue that Arab countries attempt to achieve harmonisation in reporting practices to be in line with those of Western countries.

According to Kamla (2005), Middle Eastern Arab countries' dependence on the International Accounting Standards (developed by Western countries) has led to a failure to develop any contextual accounting regulations in their own countries' context. As a result of their dependence on Western accounting regulations these Middle Eastern countries have not developed regulations that demand sustainability accounting practices or education. Because Western countries do not have regulations for sustainability reporting and only have guidelines for voluntary reporting, Middle Eastern countries too have not developed sustainability reporting regulations. In terms of theory, Tilt (2018) believes that much of the research in the

area of social and environmental accounting in developing countries adopts theory, constructs, and measures that are suitable for understanding the phenomenon in developed rather than developing countries.

Kamla (2005) found that nine Arab countries in the Middle East (Jordan, Saudi Arabia, Kuwait, Qatar, Bahrain, Oman, United Arab Emirates, Syria, and Egypt) have not developed regulations relating to social demand and CSR disclosure. For example, in the Middle East, Islamic principles suggest many different implications for sustainability, governance, and accounting (Kamla et al., 2006); however, Kamla (2005) found that, despite the major influence of Islam on stakeholders within the nine Arab countries, none of these countries attempted to consider social and religious aspects in their requirements for disclosure. Kamla and Rammal (2013) found that, although Islam has a dominant position in the Islamic banks of the Middle East, their disclosure lacks reference to Islam. This lack of developing suitable regulations for reporting that fit the context of Arab countries has impacted on sustainability reporting. Vinke and El-Khatib (2012) explain that corporate sustainability practices and reporting are not common in the Middle East.

Ismaeel and Zakaria (2019) and Tilt, Qian, Kuruppu, and Dissanayake (2020) indicate that the Middle East region and Sub-Saharan Africa, where Arab countries exist, are not sufficiently investigated with regard to sustainability practices and reporting. They believe, for example, that there are no previous studies in the Middle East dedicated to investigating stand-alone sustainability reports. Kamla (2005), Kamla (2007), and Amran and Siti-Nabiha (2009) argue that sustainability practices and reporting in developing countries are just a mimetic action that follows those in developed countries. Ismaeel and Zakaria (2019) also found that sustainability practices and reporting are not clear in the Middle East or perceived in the same way in most companies (mimetic action). Ismaeel and Zakaria (2019) believe that business organisations within the Middle East are unaware of how sustainability practices relate to their context.

Ismaeel and Zakaria (2019), however, argue that, due to the economic and cultural context in Middle Eastern countries which differs from the context in developed countries (e.g., influenced by religions), inferences from sustainability research in developed countries cannot be considered as generalisable and applicable in these Middle Eastern countries. This argument reinforces Kamla's (2005) argument that the Middle Eastern countries should develop their own accounting reporting guidelines and regulations around disclosure. Jamali and Neville (2011, p. 599) describe the pattern of sustainability practices in the Middle East region as

“cross-vergence”, i.e., a combination of convergence with global practices. Issa and Al Abbar (2015) believe that accounting is a social practice that is embedded in a context of significant pressures, threats, and opportunities that shapes its practices. Thus, a country’s sustainability accounting practices should adjust to cope with its own context.

It can be concluded that Arab countries of the Middle East lack awareness of what sustainability is as a concept in that they focus only on the economic dimension of sustainability practices to achieve only the business case of sustainability. These countries are also unaware of the relatedness of sustainability issues to their own context as they simply emulate what Western countries do in this field. Lawrence et al. (2010), Belal et al. (2013), Marx and Van der Watt (2013), and Issa and Al Abbar (2015) argue that Middle Eastern countries need corporate sustainability and transparency and that they have struggled to find ways to understand and practise sustainability. It also can be concluded that Arab countries of the Middle East do not pay attention to sustainability education in business schools to produce future leaders who are able to change sustainability practices in the Middle East.

Globally, there is a consensus that the level of implementation and practices of sustainability accounting systems, including environmental management accounting, is low due to deficiencies in the academic knowledge of practitioners (Burritt et al., 2009; Christ & Burritt, 2013; Doorasamy, 2016; Ferreira et al., 2010; Maali & Al-Attar, 2020; Stubbs & Cocklin, 2008; Ván, 2012). This PhD study believes that integrating sustainability education into the accounting curriculum will in the future bring in better corporate sustainability practices in Jordan and thereby influence other countries in the Middle East. The next section discusses the relationship between accounting and corporate sustainability practices and reporting.

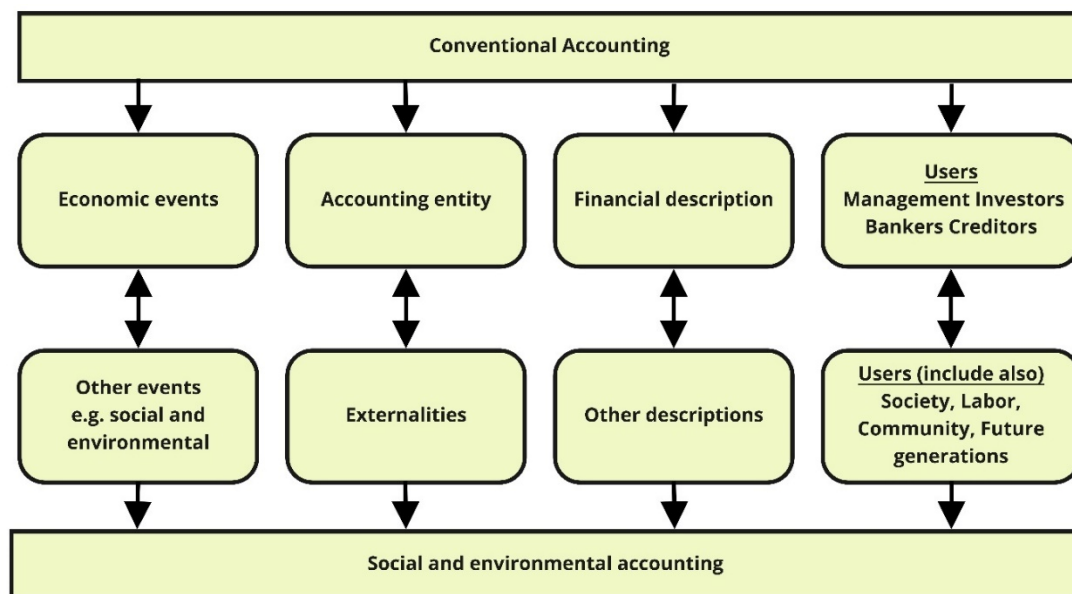
3.4 Accounting and Sustainability Business Practices and Reporting

In linking corporate sustainability to accounting the issue that arises is how it is possible to modify traditional accounting functions to help business organisations practise sustainability. Gray (1992) argues that the role of accounting in enhancing corporate sustainability practices can be perceived through the need for accountability and transparency. He suggests that accountants inform the decision-makers in an organisation of the extent to which their organisation is depleting the planet’s capital. He also believes that accountants should inform society about the ways in which organisations employ society’s capital and whether this usage is well controlled. Gray (1991, p. 5) demonstrated the contiguity between both the conventional

(traditional) accounting and social and environmental accounting⁷. Figure 3.1 below shows the need for traditional accounting to go beyond financial issues and bring the issues of corporate externalities and reporting to a wider group of stakeholders. Zulkifli (2011) believes that Gray’s juxtaposition of traditional accounting and social and environmental accounting explains the current deficiency of traditional accounting in recognising its comprehensive social, environmental, economic, and political implications.

Sustainability accounting can address traditional accounting’s deficiency. Gray (1993) identifies three methods of sustainability accounting. These are sustainable cost, natural capital inventory accounting, and input-output analysis. Sustainable cost is the cost of recovering the earth’s resources as a result of an organisation’s heavy use and impact. It is, therefore, “The amount of money an organisation would have to spend at an end of an accounting period in order to place the biosphere back into the position it was at the start of the accounting period” (Gray, 1994, p. 33).

Figure 3.1 *Elements in Conventional Accounting and Social and Environmental Accounting*



Reproduced from Gray (1991, p. 5).

This method of sustainability accounting draws on the accounting concept of capital maintenance; Gray (1994) applies it to the biosphere, highlighting the need to maintain the natural capital stock for future generations. Gray (1994) identifies a sustainable organisation

⁷ Social and environmental accounting and sustainability accounting are terms used interchangeably in the accounting literature (Schaltegger & Burritt, 2006).

as an organisation that can maintain the natural capital undamaged for future generations. According to Lamberton (2005b), the sustainable cost is deducted from the accounting profit, calculated according to the GAAP, to reach an ideal level of sustainable profit or loss. Consequences of unsustainable practices are measured in monetary terms where the accounting profit is less than the sustainable cost. The sustainable cost can be a good example of using an established principle of accounting such as capital maintenance and applying this principle to natural capital instead of the financial capital (Lamberton, 2005b).

Gray (1994) suggests that natural capital inventory accounting aims to record the natural capital stocks over time as well as to record and use the changes in levels of stock as an indicator of the declining quality of the natural resources (natural capital). Gray (1994) suggests four types of natural capital: critical natural capital such as the ozone layer and biodiversity; nonrenewable (nonsubstitutable) natural capital such as petroleum and mineral products; nonrenewable (substitutable) natural capital such as waste disposal and the usage of energy; and, finally, renewable natural capital such as fisheries. Jones (2003) applies the natural capital inventory approach to the accounting problem for biodiversity throughout the process of recording, valuing, and reporting the natural asset of wildlife habitat and fauna and flora. He urges individual organisations to keep aggregating records to establish national records of natural inventories.

Lamberton (2005b) argues that the influence of traditional accounting over natural capital accounting is evident in the application of the capital maintenance concept and the utilisation of the managerial accounting tools of inventory control. The third method of sustainability accounting is the input-output analysis that relates to the physical flow of materials, energy inputs, products, and waste outputs in physical units (Gray, 1993). This method measures all materials in a process (inputs), finished goods (outputs), emissions, waste for disposal, and recycled materials (Gray, 1993; Jorgensen, 1993). Lamberton (2005b) argues that this kind of analysis uses a balancing technique that is popular for accountants; it applies the principle “what goes in must come out” (p. 10). It also provides a disciplined method for environmental information gathering.

Schaltegger and Burritt (2010) argue that accounting has the potential to fulfil the demand for information about the economic impacts of environmental and social activities. As a result, it helps strengthen the position of sustainability accounting in corporate practice. Wagner and Schaltegger (2003) believe that there is great potential for management to support corporate

sustainability by linking value creation with environmental and social considerations. Schaltegger and Burritt (2010) believe that this potential can be realised only if sustainability issues are given adequate consideration in management accounting information. Doing so, however, requires traditional corporate accounting systems to integrate environmental and social issues and related financial impacts (Ngwakwe, 2012).

Eccles and Krzus (2010) and Yakhou (2012) propose that sustainability accountants use accounting methods to create and provide high quality and relevant information to support, through management, the three dimensions of corporate sustainability; these are the social, environmental, and economic dimensions. They also argue that accounting supports sustainability because it deals with activities, methods, and systems to record, analyse, and report first, the financial impacts resulting from environmental and social issues, second, environmental and social impacts of specific economic systems such as a company, and, finally, and most importantly, the linkages and interactions amongst the three dimensions of sustainability (social, environmental, and economic). This supportive role of accounting in sustainability has been referred to and defined as sustainability accounting. McKernan (2007) previously suggested that such a definition explains the role of accounting in supporting sustainability. Yakhou (2012) states: “Accountants have an important role to play in identifying, measuring, and allocating sustainability-related costs, developing and reporting sustainability performance metrics and helping corporations formulate and implement environmental strategies” (p. 112).

Schaltegger and Burritt (2010) believe that accounting can also support corporate sustainability because sustainability accounting systems provide managers with information for assessing corporate actions on sustainability issues. They posit that several reasons motivate managers to establish a sustainability accounting system. These include industry pressure, stakeholder pressure, governmental legislative pressure, corporate responsibility, and ethical considerations. Stakeholder pressure and governmental legislation requiring mandatory information along with reporting on sustainability, institutional compliance, and stakeholder communication are factors that impact on the continuation of corporate activities (Adams, 2004; Cooper & Owen, 2007; Murillo-Luna, Garcés-Ayerbe, & Rivera-Torres, 2008; Unerman, 2007). Sustainability accounting provides information about what standards companies have to comply with, for instance, the level of certain air emissions and effluents (Schaltegger & Burritt, 2010; Yakhou, 2012). Schaltegger and Burritt (2010) argue that accounting, however, needs to provide awareness of the possible and actual environmental and social issues.

The significance of corporate responsibility has been recognised in the idea of responsibility accounting (Ashman & Winstanley, 2007). Individuals become responsible due to their perceptions of phenomena and then their identification of particular morally important features (e.g., the impact of others, harm, or pain). According to the corporate responsibility perspective, responsibility accounting requires a system of corporate information gathering that can provide complete and relevant information and support comparison of various alternatives. Without these the probable outcome is irresponsible corporate activity and impacts (Campbell, 2007; Maignan & Ralston, 2002). Card (2005) suggests that the role of accounting information in approaching corporate responsibility is linked with the idea that accounting is concerned with the behaviour of an individual or the behaviour of individuals in groups (e.g., in departments). Such accounting information will instruct and guide the decision-makers of an organisation (Burritt, Hahn, & Schaltegger, 2002). Thus, for managers interested in enhancing their corporate sustainability, sustainability accounting plays a pivotal role (Schaltegger & Burritt, 2010).

Sustainability accounting also plays a key role in managing the business case for sustainability. Salzmann, Ionescu-Somers, and Steger (2005) believe that sustainability accounting can identify and perceive the economic potential of voluntary environmental and social activities. These potentials include areas such as reducing cost and risk, increasing sales revenue, entering new markets, improving employee morale, or increasing prices, contribution margins, innovation, corporate reputation or intangible values such as brand value (Schaltegger & Hasenmüller, 2006; Steger, 2004). Schaltegger and Burritt (2010) comment that this business case will be a great motivator for management pursuing sustainability.

In supporting the role of accounting for sustainability advocates such as Schaltegger and Burritt (2000), Adams (2009), and Ngwakwe (2012) argue that accounting has a crucial role in sustainability because two important factors lead to industrial pressure on the environment. These factors are the level of production and consumption and the environmental pressure per unit produced and consumed. Burritt and Schaltegger (2001) explain how accounting relates to such factors by focusing on the necessity to reduce environmental pressure per unit produced and consumed. They argue that, for this reduction to be effective, there is a need for an effective measurement through the recognition and assignment of prices and costs to natural resources and that accounting is the tool for this desired measurement. Pettman and Herath (2005) and Adams (2009) further explain that accounting as a tool for measurement enhances corporate environmental management because accounting information guides management operational

planning and decisions to achieve the required level of environmental pressure reduction per unit produced and consumed and making efficient use of resources and cost control. Thus, accounting affects corporate behaviour (Hopwood, 1976).

By highlighting the role of environmental management accounting in measuring and evaluating environmental information to use for decision-making Bennett and James (1997) support the role accounting can play in ensuring that sustainable practices occur. They propose that environmental management accounting can identify potential cost savings, consider environmental issues in product pricing, and prioritise environmental actions. Burritt (2004) further explains that environmental management accounting can provide accounting information that fulfils the needs of managers in relation to corporate activities that influence the environment and environment-related impacts on the organisation. This information focuses on the significance of environmental cost and material flows, which, in turn, helps to improve organisational calculations for environmental management and decision-making and, as a result, enhances economic and environmental performances (United Nations Division for Sustainable Development, 2001).

In line with Burritt (2004), Wahyuni (2009) explains the role of management accounting and its techniques in supporting corporate sustainability. These techniques include costing analysis (i.e., life cycle assessment, activity-based costing, and material flow cost accounting), investment appraisals (i.e., total cost assessment), and performance management (i.e., balanced scorecard). Albelda (2011) suggests that management accounting acts as a facilitator of environmental management through management accounting practices commonly implemented at an operational level in a plant in, for example, the form of investment appraisals, costing systems, budgets, and performance measures. This role means integrating environmental management accounting systems so that they can be used as a fundamental structure to achieve sustainability practices and to gain legitimacy from society through guiding the decision-making within the organisation (Mistry, Sharma, & Low, 2014).

Furthermore, several other scholars support the role of management accounting in sustainability as it helps corporate managers seize advantages such as cost reduction (Burritt & Saka, 2006), innovation (Hendro, Ferreira, & Moulang, 2008), and cleaner production (Burritt et al., 2009). Wahyuni (2009) suggests that such advantages will encourage the organisation to launch environmentally friendly products into markets and enable corporate activities to have less harmful impacts and, thus, result in an improved corporate social image and reputation.

Moreover, Collins, Lawrence, Roper, and Haar (2011) believe that managerial accountants have a key role to play in helping senior management with integrated reports. However, there is a gap between the role of management accounting described in the literature and the current practices of environmental management accountants (Mistry et al., 2014). While the literature on management accounting suggests that accountants make use of tools such as environmental management accounting systems to reach their organisations' goals of sustainable development, this is not the case in real practice (Mistry et al., 2014).

Sustainability reporting is also a key point that connects accounting with sustainability practices (Burritt & Schaltegger, 2010; Hopwood et al., 2012). Accounting involves recording and reporting business transactions and provides data for informed decision-making by different parties (Khan, 2011). In industry, accounting practices have expanded to incorporate the view of stakeholders rather than just the traditional view of shareholders (Moneva, Archel, & Correa, 2006). Therefore, the nature and content of recording and reporting have also shifted to cope with this changing view of industry (Khan, 2011). According to the International Federation of Accountants (2011), professional accountants are cornerstones in developing strategies of sustainability reporting and CSR disclosure that produce high-quality reports on corporate sustainability practices.

A number of different frameworks have been developed to include sustainability measurement and reporting within companies, for example, the Global Reporting Initiative (GRI) and the Environmental Sustainability Index (Yakhou, 2012). Joshi and Krishnan (2010) believe that such reports aim to communicate the overall environmental, social, financial, and economic effects of corporate activities. Moreover, sustainability reporting is viewed as the process of communicating the sustainability performance of a company to stakeholders (Botes et al., 2014). Sustainability reporting is a standard practice that is now adopted worldwide. According to KPMG (2015), sustainability reporting internationally is at a high level. For example, 92% of the world's largest 250 organisations are producing sustainability reports (KPMG, 2015). Asia Pacific took the lead in 2015 as it scored the highest rate of reporting compared to Western companies; however, the reporting rate in the Middle East is at the lowest level (KPMG, 2015). According to KPMG's latest survey of sustainability reporting, America currently leads in sustainability reporting, while the rate of sustainability reporting in the Middle East and Africa remains at the lowest level (59%) (KPMG, 2020). The only Arab countries included in the KPMG survey are Saudi Arabia (36%) and the United Arab Emirates (51%) which scored amongst the lowest rates in the Middle East and Africa region (KPMG, 2020).

Ballou, Casey, Grenier, and Heitger (2012) and Özsözgün Çalışkan (2014) summarise the role of accounting and accountants in contributing to sustainability. They believe that this role includes the following: developing sustainability accounting standards and national and sectoral sustainability reporting standards; establishing the connection between nonfinancial and financial values of corporations; informing and educating related parties; risk identification and management; developing a framework for producing reliable financial and nonfinancial information; promoting policies for determining the necessity to report; preparing and implementing sustainability implication plans; and, managing independent audit and review processes. While this section discussed how accounting can be linked to sustainability, the next section discusses how tertiary education can better support sustainability practices.

3.5 The Importance of Tertiary Education in Supporting Sustainability Practices

A number of different international activities have advocated for the inclusion of sustainability issues in tertiary education. These international activities have led universities, other associations of tertiary education, and governments to show commitment towards the issue of sustainability by signing a number of declarations that support the ethical operation as well as the accountability to stakeholders (Tilbury, 2011). The declarations include enhanced environmental and carbon management on campuses, employee training, curriculum reorientation towards sustainability education, and a greater research contribution to social agendas where universities that signed these declarations have a commitment to operational activities as well as curriculum development that supports sustainability (Tilbury, 2011). Table 3.1 shows the details and importance of these declarations.

Many tertiary institutions have recognised the significance of incorporating environmental literacy and sustainability education into their curriculum to adequately prepare graduates for employment. Many universities including those in Australia, Brazil, Canada, Hong Kong, Malaysia, Peru, the UK and the USA to name but a few (Khan, 2013) have signed these declarations, most particularly the Talloires Declaration. However, Khan (2013) notes that universities in most of these countries, with the exception of those in the USA, the UK and Australia, offer sustainability courses as a core in specific disciplines such as natural and environmental sciences, physical sciences, and economics and management.

Table 3.1 *Key International Declarations*

Year	Declaration	Partners Involved	Scope	Key Words
1990	Talloires Declaration	University Leaders for a Sustainable Future	Global	Unprecedented scale and speed of pollution and degradation. Major roles: education, research, policy, information exchange; Reverse the trends
1991	Halifax Declaration	Consortium of Canadian Institutions; IAU; UNU	Global	Responsibility to shape their present and future development; Ethical obligation; Overcome root causes
1993	Kyoto Declaration on Sustainable Development	IAU	Global	Better communication of the what and why of SD; Teaching and research capacity; Operations to reflect best SD practice
1993	Swansea Declaration	Association of Australian Government Universities	Global	Educational, research and public service roles; Major attitudinal and policy changes
1994	COPERNICUS University Charter for Sustainable Development	Association of European Universities	Regional (Europe)	Institutional commitment; Environmental ethics and attitudes; Education of university employees; Programmes in environmental education; Interdisciplinarity; Dissemination of knowledge; Networking; Partnership; Continuing education programmes; Technology transfer
2001	Luneburg Declaration	Global Higher Education for Sustainability Partnership	Global	Play an indispensable role; Be a catalyst for SD building a learning society; Generate new knowledge to train leaders and teachers of tomorrow; Disseminate SD knowledge; Provide state of the art knowledge; Continually review and update curricula; Serve teachers; Create lifelong learners
2002	Unbuntu Declaration	UNU, UNESCO, IAU, Third World Academy of Science, African Academy of Sciences and the Science Council of Asia, Copernicus-Campus, Global Higher Education for Sustainability Partnership and University Leaders for Sustainable Future	Global	Called for the creation of a global learning environment for education in sustainable development to produce an action-oriented tool kit for universities designed to move from commitment to action; to indicate strategies for reform, particularly in such areas as teaching, research, operations, and outreach; and, to make an inventory of best practice and case studies

2005	Graz Declaration on Committing Universities to Sustainable Development, Austria	COPERNICUS CAMPUS, Kari-Franzens University Graz, Technical University Graz, Oikos International, UNESCO	Global	Called on universities to give status to SD in their strategies and activities. It also called for universities to use SD as a framework for the enhancement of the social dimension of European higher education.
2005	Bergen	European education ministers, European Commission and other consultative members	Regional (Europe)	Made for the first time since 1999, a strong reference that the Bologna Process for establishing a European Higher Education Area by 2010 and that promoting the European system of higher education worldwide should be based on the principle of sustainable development
2006	American College and University Presidents' Climate Commitment	AASHE	National (USA)	Called for an Emissions inventory; Within 2 years, universities are to set a date for becoming 'climate neutral'; Integrate sustainability into the curriculum and make it part of the educational experience; make action plan, inventory, and progress reports publicly available
2008	Declaration of the Regional Conference on Higher Education in Latin America and the Caribbean-CRES 2008	UNESCO	Regional (Caribbean and Latin American)	Emphasis on SD for social progress; Cultural identities; Social cohesion; Poverty; Climate Change; Energy Crisis; Culture of Peace; Need to contribute to democratic relations and tolerance; Solidarity and cooperation; Critical and rigorous intellectual ability
2008	Sapporo Sustainability Declaration	G8 University Network ⁸	Global	Universities should work closely with policy-makers; Universities' leadership role is becoming increasingly critical; Educating; Disseminating information; Training leaders; Interdisciplinary perspective
2009	World Conference on Higher Education	UNESCO	Global	Advance understanding of multifaceted issues and our ability to respond; Increase interdisciplinary focus; Promote critical thinking; Promote active citizenship; peace, wellbeing, and human rights Contribute to education of committed ethical citizens
2009	Turin Declaration on Education and Research for Sustainable and Responsible Development, Italy	G8 University Network	Global	Called for new models of social and economic development consistent with sustainability principles; Ethical approaches to sustainable development; New approaches to energy policy; Focus on sustainable ecosystems

⁸ G8: The Group of Eight refers to a group of highly industrialised nations: the USA, the UK, Canada, Russia, Japan, France, Germany, and Italy.

2005 to 2014	The Declaration of the United Nations of Decade on Education for Sustainable Development (UNDESD) 2005-2014	UNESCO, THE Global Universities Partnership on Environment for Sustainability (GUPES)	Global	Education, human rights, poverty, quality of life, citizenship, and democracy
2012	Gaborone Declaration for Sustainability in Africa	Botswana, Ghana, Gabon, Kenya, Liberia, Mozambique, Namibia, Rwanda, South Africa and Tanzania	Regional (Africa)	The value of integrating natural capital into the national accounting, knowledge, model of sustainable development; Positive changes
2014	Nagoya Declaration on Higher Education for Sustainable Development	Japan, Participants of the International Conference on Higher Education for Sustainable Development	Global	Reaffirms the responsibility of higher education for pursuing of sustainable development, and commits their support for further advancing sustainable development through education for sustainable development.
2015	The Sustainable Development Goals (SDGs)	The United Nations University-Institute for the Advanced Study of Sustainability (UNU-IAS)	Global	Poverty; Healthcare; Climate; Equality; and, Education.

Adopted from “Higher education for sustainability: A global overview of commitment and progress,” by Tilbury. *Higher Education in the World*, 4, 2011, p. 3 and updated from “Introduction”. *Envisioning Futures for Environmental and Sustainability Education*, by Corcoran, Weakland, and Wals, 2017, Wageningen, The Netherlands: Academic Publishers. and “World Conference on Education for Sustainable Development”, 2014

The huge influence of universities and colleges on future business leaders is due to the key roles these institutions have in international procurement, offshore partnership, and teaching both national and international students. Therefore, tertiary education institutions can heavily impact on economic development (Boks & Diehl, 2006; Corcoran, Weakland, & Wals, 2017; Galang, 2010; Lotz-Sisitka, 2011). Stern (2010) believes that tertiary education institutions are indispensable in supporting the issue of sustainability. He connects the key roles universities and colleges have with addressing the current challenges of sustainability. He argues that higher education can bring change to the world through coaching and expanding young minds so that they can search for answers to challenges and show their understanding of being, and their ability to be, a responsible employer and active member of the business realm and local community.

Furthermore, education has always been considered essential to achieving sustainable developments. Agenda 21 of the United Nations Divisions for Sustainable Development states that “education is critical for promoting sustainable developments and improving the capacity of people to address environment and development issues” (United Nations Division for Sustainable Development, 1992 p. 36). A decade later, Springett and Kearins (2001), Fien (2002), Wright (2002), and Wals and Jickling (2002) again stressed the need for higher education universities and colleges to incorporate sustainability issues into curricula, teaching, and learning. Sidiropoulos (2014) believes that sustainability is a question of value, a concept that should be integrated in higher education as it relates to the individual, institutional, and community context.

More recent studies, however, argue that sustainability challenges recent structures, paradigms, and predominant practices across social sectors, particularly higher education (Calder & Clugston, 2003; Lozano, 2007). For example, sustainability requires universities to bring changes to their way of thinking and perceiving matters, which means that universities and colleges are struggling to contribute meaningfully to sustainability (Huisingsh & Mebratu, 2000; Lozano, Lukman, Lozano, Huisingsh, & Zilahy, 2010; Su & Chang, 2010). Therefore, education for sustainable development has gained little attention in universities, especially in the period since the Rio Summit (Tilbury & Wortman, 2004). Universities and colleges have a key role in launching projects and platforms that address the most important issues of sustainability. Yet, such projects and platforms tend to engage only a small number of groups and fail to reach the core of staff, students, and stakeholders or even bring about a change in the culture (Tilbury, 2011). Thus, the conversion of universities towards sustainable development needs

comprehensive reconsideration of all their activities with the help of a critically reflective paradigm that supports the development of a more sustainable future (Tilbury, 2011).

Since the advent of the 21st century, tertiary education has witnessed unprecedented challenges due to the convergent effects of globalisation, the increasing significance of knowledge as a primary driver of growth, and the revolution in information and communication (Holm-Nielsen, 2001). These changes have impacted on the role of education, particularly tertiary education, in becoming more influential in the construction of knowledge, economies, and democratic societies (Holm-Nielsen, 2001). Accordingly, tertiary education should be directed towards critical issues such as sustainability issues and respond to radical change and development in various areas so that it achieves its goal of providing the community with competence and necessary skills (Al-Hayek & Al-Khasawneh, 2013). This course of action requires a reconsideration to the system of university education and the achieving of new educational models characterised by innovation, flexibility, and productivity skills (Al-Hayek & Al-Khasawneh, 2013).

A number of countries have made considerable changes to their higher education systems. For example, the University of Philippines, TERI India, and Dalhousie University (Canada) have embraced change in methods of financing and governance, patterns of growing institutional recognition, and change in the mechanisms of evaluation and accreditation (Tilbury, 2011). They have also brought change to the curricula and focused on developing new specialist papers on sustainability (Tilbury, 2011). However, Shin and Harman (2009) argue that tertiary education in developing and transition countries continues to struggle with the quandaries of inadequate responses to pre-existing challenges. Some of these unresolved challenges concern the expansion of higher education coverage in a sustainable way and the advancement of educational quality and relevance (Shin & Harman, 2009). Despite the significant growth of higher education enrolment levels in most developing nations, the gap in enrolment between these developing countries and those of the most developed persists and widens (Holm-Nielsen, 2001; Shin & Harman, 2009). Financial resources, for example, have proved insufficient to sustain the growth of enrolment and enhance the quality of tertiary education in developing countries. Moreover, rigid governance models as well as management practices have prevented universities and colleges from bringing about change through rehabilitation and innovation (Holm-Nielsen, 2001; Powell & Walsh, 2018). However, despite the key role of tertiary education in supporting sustainability practices, sustainability education in business schools is lacking. The next section discusses this issue.

3.6 The Importance of Sustainability Education in Business and Accounting Curricula

Although many universities signed the declarations on sustainability education, they have only offered sustainability accounting education on a limited scale, particularly at the undergraduate level (Khan, 2013). Khan (2013) argues that declarations' signatories (e.g., those who signed up to the Talloires Declaration) do not offer sustainability accounting education on a wide scale, although they have committed themselves to embed sustainability in all areas and disciplines. Despite clear industry demand (Martin & Steele, 2010), such declarations have failed to make sustainability accounting education compulsory in business schools' curricula (Khan, 2013). Furthermore, Duska, Duska, and Ragatz (2011) believe that ethical and sustainability education is crucial for professional accounting; however, declaration signatories are not addressing this need in core accounting subjects, and they do not address the social role of accounting education (Bringle & Steinberg, 2010).

Business and accounting schools internationally have been slow to respond to this global recognition that sustainability should be integrated into all educational disciplines (Khan, 2011; Mburayi & Wall, 2018). For example, more than 75% of the total number of universities that offer accounting courses in Australia and the USA do not offer stand-alone sustainability accounting courses (Khan, 2011). Kelly and Alam (2009) indicate that modern Western accounting education systems are not considering sustainability issues and that business schools, including accounting departments, are not equipping graduates for ethical decision-making that drives them to consider the most sustainable alternatives in the work environment in the future. Khan (2013) notes that the degree of sustainability accounting integration into other financial accounting subjects is superficial and limited to only topics such as legitimacy and stakeholder theories and a briefing on sustainability reporting frameworks such as the GRI framework. Haskin and Burke (2016) believe the current traditional business and accounting curricula worldwide have focused on maximising the shareholder's wealth through increasing financial capital as well as the stock value of business organisations.

Gray (2013) argues that, although stakeholders believe that sustainability is important in the context of accounting education, educators ignore it. Boulianne and Keddie (2018) found that sustainability is not a key component of the Canadian CPA education programme. They concluded that the accounting profession body and university accounting departments have had to deal with the type of educational programme that is needed to train future skilled accountable

professional accountants with the required competencies (see also, Botes & Sharma, 2017; Lawson et al., 2014; Lawson et al., 2015; Ocampo-Gómez & Ortega-Guerrero, 2013), but that sustainability material is not a requirement.

The lack of sustainability education in the business and accounting curricula has resulted in many crises for stakeholders worldwide that highlighted the need for a change in both accounting education and practice. For example, there have been growing concerns about global warming and the increasing levels of industrial pollution worldwide (Doh & Tashman, 2014). In addition, the collapse of Enron pointed out the moral nature of accounting education and brought a deeper perspective to tertiary education (Chabrak & Craig, 2013; Diamond, 2005; Humphrey, 2005; Parker, 2005). Such crises have underlined the delicate interaction between business and society and highlighted the need for business organisations to consider seriously the impact of their operations on stakeholders (Doh & Tashman, 2014).

Chulián (2011) argues that most countries' tertiary education accounting curricula lack sustainability education because these curricula have been developed on two common assumptions. The first is the primacy of shareholders, which refers to the need to satisfy their own economic interests and so their social wellbeing. Gray, Owen, and Adams (1996), Gray and Bebbington (2000), and Schaltegger and Burritt (2010) indicate that this assumption privileges the primacy of profits and profitability and positions the shareholders as the most important participants whose needs have to be met first. They add that this assumption also legitimises externalities as a means of reaching economic and financial success, taking into consideration that the environment is the only source of resources. The second assumption relates to the way accounting is presented. McPhail (2001) argues that accounting courses promote the acquisition and control of accounting techniques that translate the business reality into the language of business where there is no empathy towards the various stakeholders in the organisation. Therefore, accounting education is approached from the viewpoint of the economic and financial management of an organisation only (Chulián, 2011), with little or no consideration given to the importance of incorporating sustainability accounting courses into the accounting curricula.

In response to the lack of sustainability education in business and accounting schools, considerable international activity has been aimed at having sustainability education integrated into the accounting curriculum, particularly in countries such as the UK, Australia, and New Zealand (Khan, 2011). However, their activities and interests around integrating sustainability

issues into the business curricula have not been extensively investigated (Christensen, Peirce, Hartman, Hoffman, & Carrier, 2007; Doh & Tashman, 2014). The business schools' lack of prioritisation of sustainability education could be a reason behind the recently established pillar of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) named "Education for Sustainable Development" (Biasutti & Frate, 2017) to encourage activity in the field. Activity within the tertiary education sector including business schools of developing countries, particularly in the Middle East, has been not evident. Springett and Kearins (2001), Fien (2002), Wals and Jickling (2002), Wright (2002), and Scott, Tilbury, Sharp, and Deane (2012) emphasise the need for embedding sustainability into the core business of tertiary education because tertiary education institutions have a powerful impact on changing humans' ways of thinking and making decisions. These researchers also believe that embedding sustainability into the core business of tertiary education will result in a higher quality of life.

Furthermore, Hazelton and Haigh (2010) and Boyce, Greer, Blair, and Davids (2012) investigate papers on sustainability accounting and the level of integration of sustainability content into accounting courses. Hazelton and Haigh (2010) found that projects that aimed to integrate principles of sustainable development into postgraduate accounting curricula were marked by some success; however, efforts to create permanent change in the curriculum were challenged by the predominantly traditional orientation of students because students focus on the technical aspects of accounting. They also found that the accounting profession's focus on the traditional (technical) aspects of accounting and the focus of the competing educational agendas on traditional skills add to the challenges of integrating sustainability into the accounting curriculum which is already overcrowded. Boyce et al. (2012) found that to respond to the increased interest in ethical, social, and environmental accountability there should be a deep accounting educational change that encompasses both the context and practice of classroom activity as well as changes in the awareness of staff and students.

Wells, Gerbic, Kranenburg, and Bygrave (2009) focus on the professional skills and capabilities of New Zealand accounting graduates. They found that emotional intelligence, represented by personal and interpersonal capabilities, are important professional skills. They also identified the importance of client responsiveness as a key capability, the role of university courses in developing professional capabilities in teamwork, and providing real world learning experiences as areas that need improvements. Spicer, Barthelmeh, Montgomery, and Spellerberg (2011) emphasise the general state of sustainability education in the universities of New Zealand. They found that there is a need to develop a student guide on sustainability-

related courses to encourage students to enrol in these courses. They also found that there is a need to develop a 100-level course entitled 'Introduction to Sustainability' to be provided to all students. Sharma and Kelly (2014) focus on the students' perceptions of education for sustainable development in the accounting and business curricula in New Zealand. They found that students need to enhance their knowledge of sustainability. In line with Gray, Bebbington, and McPhail (1994), Chulián (2011) believes that in order to make accounting students think about and question of what is good or bad for the environment and society and about what it is possible or impossible to do for their environment and society, sustainability education has to be integrated into the accounting curricula.

Sustainability accounting links traditional accounting with facts that are of interest to different stakeholders, and so it captures many of the features associated with an education based on intellectual development. These features are those such as criticism and questioning of the accountant's key role in the environmental and social frame (Chulián, 2011). Therefore, sustainability accounting courses in the accounting curricula can help develop a willingness in graduates to perceive the limitations of business dealings in general, and, particularly, traditional accounting (Boyce, 2004). In this regard Gray and Collison (2002) and Sharma and Kelly (2014) suggest that, to equip organisations with new generations of well-trained accountants, the accounting curricula in tertiary education should address subjects that support the public interests and environment as a core in the accounting profession. To reach this goal, education has to focus on the intellectual development of students rather than on the acquisition of professional skills only (Chulián, 2011). Doing so will make accounting students aware that they will make serious decisions in the future that impact on the rights of different stakeholders and of the possibilities that are available to them under the conventional financial accounting and current business structure (Chulián, 2011).

Hazelton and Haigh (2010) argue that changes to accounting curricula have the possibility of impacting significantly on the outcomes of sustainability because a considerable percentage of university students study accounting. Researchers and practitioners have frequently called for advances in accounting curricula to go beyond their conventional technical focus and to bring in topics that equip students with wider social skills and involve issues such as globalisation, environmental reporting, and sustainability (Alcaraz, Marcinkowska, & Thiruvattal, 2011; Bebbington, 1997; Gray, 2019; Gray et al., 1994; Gray & Collison, 2002; Hahn & Reimsbach, 2014; Heffes, 2001; Holland, 2004; Rasche, Gilbert, & Schedel, 2013; Singh, Bisht, & Rastogi, 2011; Wu, Huang, Kuo, & Wu, 2010).

The need for sustainability education to be included in the accounting curriculum can be discussed also from the viewpoint of industry. As the view of industry has changed towards sustainability, accounting education needs also to respond to such a change and to integrate pedagogy that involves sustainability accounting (Khan, 2011). Lozano et al. (2013) argue that this change in the industry's view is due to the fact that business organisations are increasingly required by stakeholders to address sustainability and to implement and explore sustainable business practices. Thus, organisations are now seeking sustainability-literate graduates. Moreover, because sustainability reporting has become a global issue as a result of greater policy pressures on firms to be accountable for sustainability activities (Gray, 2001), accounting education needs to explore ways to incorporate sustainability accounting courses in the curricula (Botes et al., 2014; Rusinko, 2010a). While this section identifies a significant gap where sustainability accounting education is lacking, the next section discusses the value relevance between sustainability and accounting practices and education.

3.7 Sustainability Accounting Education: Value Relevance Perspective

Graduate business and accounting students of today believe that sustainability information is highly value-relevant (Hahn & Reimsbach, 2014). However, the aim of integrating sustainability education into business and accounting curricula is not only to gain support for the issue of sustainability from graduates, but also to consider sustainability issues seriously in businesses operations that are currently led by those managers who were once business students (Gray & Collison, 2002). Therefore, Hahn and Reimsbach (2014) raise an important question, when they ask whether current students will seriously scrutinise sustainability information when becoming managers in the future, or whether they will instead treat such information superficially. This question reflects two different views regarding the integration of sustainability education into business and accounting curricula. Hahn and Reimsbach (2014, p. 56) call these two views “The Accounting View” and “The Sustainability View”.

The accounting view is adopted by scholars of accounting, economics, and finance who argue from a shareholder value perspective (Dhaliwal, Li, Tsang, & Yang, 2011; Shank, Manullang, & Hill, 2005). They debate, for example, whether the social and environmental engagement impacts on the financial performance of organisations and so increases or decreases the shareholder value. They also question whether investors reward superior corporate sustainability performance or not and whether it is important for business organisations to engage and invest in sustainability projects. The sustainability view, however, has been

advocated since the mid-1950s. The advocates of this view argue from a perspective that recognises the responsibilities of organisations beyond a mere profitability perspective (Bowen, 1953; Carroll, 1999; Freeman, 1984). Both views are discussed next.

3.7.1 The Accounting View

According to the accounting view, the conventional accounting mindset is influenced by “neoclassical micro-economics” (Gordon, 1998, p. 33) and the shareholder-value perspective (Moser & Martin, 2012). As a result, accounting students are more familiar with the “value relevance” which forms a core part of all financial accounting textbooks (Alexander & Nobes, 2007; Libby & Short, 2010). For instance, Barth, Beaver, and Landsman (2001) argue that accounting measurements, including nonfinancial measurements, are deemed value relevant if they have a significant association with, for example, equity market value. The value relevance of accounting information is linked, even indirectly, to investment decisions, and this link is notable in the conceptual accounting frameworks released by the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB), which are essential parts of all accounting classes (Staubus, 2000). Hahn and Reimsbach (2014) believe that value relevance, as defined in this context, is not a stated standard of the IASB or FASB; however, it is “an empirical operationalisation of the stated criteria of relevance and reliability” (p. 57). Therefore, information can be considered as value-relevant (i.e., has a predicted significant relation with share prices), if investors think that the information is relevant for valuing the organisation and hence reliable enough to be reflected in share prices (Barth et al., 2001).

Hahn and Reimsbach (2014) believe that the educational background of graduate students in management and accounting is a significant factor in explaining how they perceive the relevance of sustainability information. In other words, sustainability education provided within the business and accounting curricula should have an element that discusses its future implications of serving the accounting view. For example, students could be asked to investigate the relationship between sustainability disclosure and the average stock price of a set of companies. Scholars have investigated the relationship between sustainability and financial performance extensively. Some have found a positive association between the two through, for example, increased loyalty and motivation of workers, improved investor relations, customer reputation, and stronger brand value. In general, researchers agree that the link between sustainability and the financial performance of organisations does exist (see, for example, Carroll & Shabana, 2010; Dhaliwal, Radhakrishnan, Tsang, & Yang, 2012).

Moser and Martin (2012) argue that accounting discipline educators have acknowledged the essential need to integrate sustainability issues into the range of accounting curricula. The notion that accounting educators have a strong willingness to integrate sustainability education into the accounting curricula has been considerably supported over time by many surveys amongst accounting scholars (see, Blanthorne, Kovar, & Fisher, 2007; Owen, Humphrey, & Lewis, 1994) and is in addition to the growing interest of the accounting profession in sustainability issues (Ngwakwe, 2012). On the basis of these trends in sustainability accounting research and education, it seems that there is a preliminary agreement that the level of accounting education is linked to the probability of categorising sustainability information as value relevant. This agreement could be a good indication when considering accounting education under a sustainability lens. Hahn and Reimsbach (2014) argue that accounting experts, as opposed to accounting students, acknowledge not only the value relevance of sustainability information but also all related information as a positive signal and that providing such information would increase transparency.

However, the provision of sustainability information itself does not necessarily mean a superior corporate sustainability performance. In other words, despite the good provision of sustainability information by an organisation, it can be found that the organisation still has some negative practices because the organisation reports only superficially and this superficiality creates doubts over its actual sustainability performance. Hahn and Reimsbach (2014) believe that the nature of accounting education is an important factor regarding such negative behaviours. The superficial learning strategies of accounting education have been criticised (Gray et al., 1994) because accounting education focuses on algorithmic exercises and routine knowledge (Hazelton & Haigh, 2010). Such superficial learning strategies have led students to fail to develop the skills required to overcome ambiguity and to solve unstructured problems (Kimmel, 1995). The superficial and knowledge-based nature of accounting courses also justifies the hesitancy of some accounting educators to teach sustainability as they do not feel sufficiently qualified to teach it (Fleischman & Schuele, 2006; Stevenson, 2002). Therefore, Hahn and Reimsbach (2014) argue for more expansion of the value relevance in accounting education that includes sustainability-related issues in a technical rather than a critical way.

3.7.2 The Sustainability View

Cordano, Ellis, and Scherer (2003) argue that industrial practitioners consider sustainability issues as just a cost factor and ignore their potential benefits. According to Benton (1994) and Synodinos (1990), business and accounting students seemed to be less environmentally

sensitive than students from other fields of study. However, Hahn and Reimsbach (2014) argue that business and accounting students, including those who do not have a strong educational background in sustainability, recognise the value relevance of sustainability issues. Hahn and Reimsbach (2014) believe that potential, future corporate managers (today's students) appreciate sustainability education and that they have started to change their thoughts about the issue of sustainability and now see it as something that endangers the financial viability of organisations. Sharma (2000) and Cordano et al. (2003) believe that students' interests in sustainability issues lead business organisations to consider and support the sustainability case in their process.

Springett (2005) states that "education for sustainability is seen as having the power to guide people in reflection and action as they engage with the discourses of sustainability" (p. 147). Peoples (2009) calls for educators to "prepare future leaders with the understanding and tools necessary to make key decisions based on more than 'just the numbers'" (p. 376). However, the question of how students include information beyond numbers arises here (Hahn & Reimsbach, 2014). Hahn and Reimsbach (2014) argue that critical reflection and advanced use of sustainability education would help prepare future leaders. They believe that accounting students who have more advanced sustainability knowledge can examine nonfinancial information more deeply. Research shows that stakeholders doubt voluntary corporate disclosure (Mercer, 2004; Pomeroy & Dolnicar, 2009). Therefore, only accounting students with a sophisticated educational background about sustainability will be able to truly question the information provided in the corporate disclosure, while other students will simply accept it at face value (Haskin & Burke, 2016).

While teaching the value relevance logic in an oversimplified way may endanger the economic survival of organisations in future, teaching merely the business logic is also insufficient to achieve sustainability on a societal scale (Hahn, Figge, Pinkse, & Preuss, 2010; Kurucz, Colbert, & Wheeler, 2008). For example, Dyllick and Hockerts (2002) suggest that an exaggerating concentration on the value relevance of sustainability corporate activities will hide the possibly existing limits of the business case for sustainability. In line with Dyllick and Hockerts (2002), Hahn et al. (2010) argue that too much focus on the value relevance of sustainability corporate activities will conceal any potential existing trade-offs. In other words, even if a positive relationship between sustainability and financial performance exists, this connection has not yet been completely confirmed.

Hahn and Reimsbach (2014) believe that sustainability education should go beyond acknowledging only the value relevance of sustainability and cover a deeper understanding of corporate activities, systems, and relations because without this approach students would be unable to truly recognise the significance of different types of information, outcomes, and programmes. Covering a deeper understanding of corporate activities, systems, and relations will protect sustainability from being just a greenwash, and business will be truly sustainable (Cho, Roberts, & Patten, 2010; Hahn & Lülfs, 2014). The stakeholders' uncritical and superficial handling of sustainability will help the case of greenwashing grow (Giacalone & Thompson, 2006).

The previous sections of this chapter have identified a gap in which sustainability accounting education appears to have been ignored despite its importance in enhancing future corporate sustainability practices. The next section of this chapter discusses approaches and framework models for integrating sustainability education into the accounting curriculum.

3.8 Approaches to Integrating Sustainability Education into Business and Accounting Curricula

There are diverging approaches to incorporating sustainability education in core business and accounting courses rather than in elective courses (Blanthorne et al., 2007; Dellaportas, 2006; Molyneaux, 2004; Starik, Rands, Marcus, & Clark, 2010). Business schools use different ways and approaches to implement sustainability education into their curricula. These approaches consider all the dimensions of sustainability that contribute to sustainable corporate activities. In other words, these approaches consider sustainability as “organisations’ social, environmental, and economic performance” (Kiron, Kruschwitz, Haanaes, & Velken, 2012, p. 70) or in terms of the triple-bottom-line (people, planet, and profit) (Bos & Bevan, 2011). Hommel, Painter-Morland, and Wang (2012) argue that ethics and governance should also be central to all these corporate sustainability dimensions. In line with Hommel et al. (2012), Painter-Morland, Sabet, Molthan-Hill, Goworek, and de Leeuw (2016) state that “sustainability is displayed in and through an organisation’s ethics, social, governance and environmental performance” (p. 738).

The way and the extent to which business schools attempt to integrate these dimensions (society, the environment, and the economy) of sustainability into their curricula remains controversial. For example, some academic members in business schools still believe that the issue of sustainability is marginal to all disciplines of business education including accounting

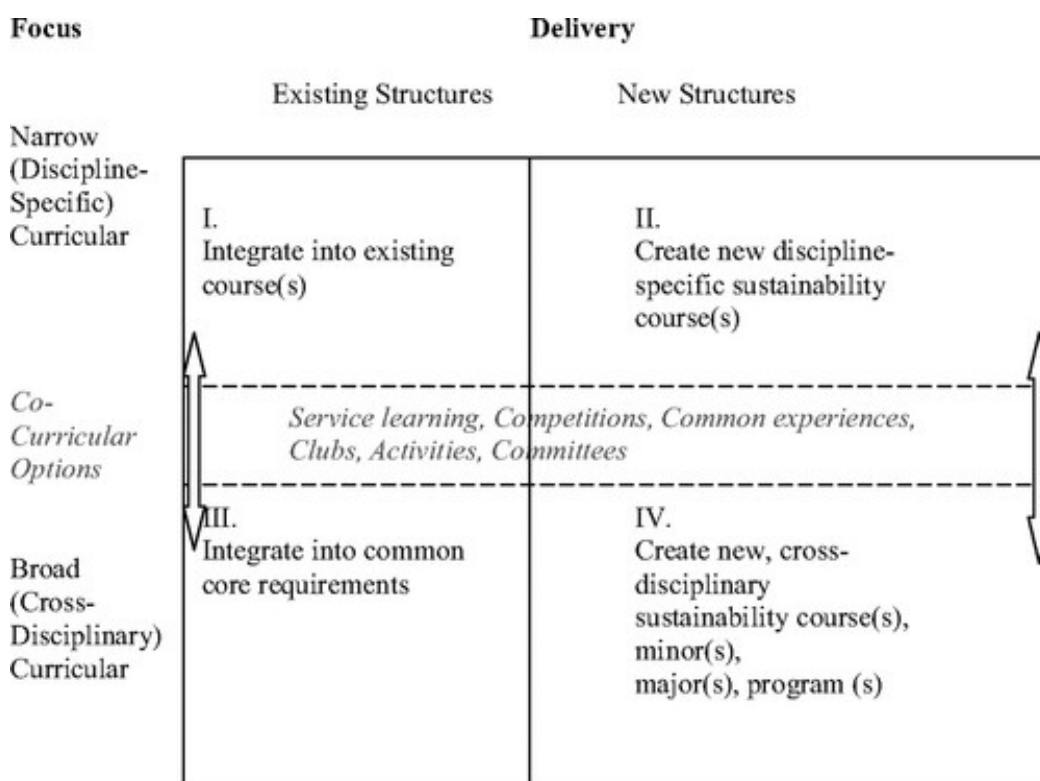
(Hommel et al., 2012). Even though acknowledging the integration of sustainability education into the curricula of all core business disciplines, including accounting, is growing, there seem to be some serious barriers to this integration (Rasche et al., 2013). For example, Muff et al. (2013) view challenges to the leadership of business schools' managers, public criticism of business schools, and the extensive economic crisis as obstacles to bringing about change in business schools.

Sterling (2004) suggests that universities and other tertiary institutions can respond to the challenge of teaching sustainability through three potential levels of response. The first level is the accommodative response to education about sustainability. The second level is the reformative response to education for sustainability, and the third level is the transformative response to the capacity building. In the accommodative response to education about sustainability, which is the most basic level, sustainability modules are simply added to the curricula. The second level, however, takes the first level further by transforming the educational institution itself (e.g., business schools) to be more sustainable by adopting more sustainable operational approaches. The most fundamental level is the third one where the educational institution is prepared to be a place to transform students by equipping them with the skills required for sustainability. Starik et al. (2010) criticise the "incrementalism reform approaches that most individuals, organisations and societies have employed to address critical global sustainability issues (p. 377)" and support more transformative outcomes in the education business schools provide.

Muff et al. (2013) criticise the way business schools measure their outcomes (outcomes such as preparing students (future leaders) to serve shareholders predominantly). The current outcome measurement places business schools amongst the best *in* the world, instead of being, *for* the world, and so it should be revised. Painter-Morland (2015) believes that the available models of integrating sustainability education into the curricula of business schools, including accounting models, suffer from the permanent problems that concern all business disciplines. These problems can be described as the models' 'science-envy', its myopic orientation, and the obstacles of existing drivers such as rankings, publishing criteria, and accreditations (Painter-Morland, 2015). Therefore, Painter-Morland et al. (2016) believe that the most effective way to measure the progress of business schools in the sustainability area is to employ the matrix developed by Rusinko (2010b). This matrix shows how sustainability education can be adopted based on different levels of business and accounting education.

Rusinko (2010b) developed a matrix approach which suggests four ways to integrate sustainability into the business and accounting curriculum. These methods of integration are first, adding sustainability topics to individual paper sessions within the existing curriculum; second, developing a new stand-alone sustainability paper (course); third, developing a sustainability specialisation which includes a broader cross-curriculum perspective (entire curriculum); and, fourth, integrating sustainability courses into not only the accounting curriculum but also all business disciplines. Rusinko (2010b) suggests that the first two methods emphasise a narrow curriculum structure (discipline-specific curriculum), whereas, the last two methods emphasise a broad curriculum (cross-disciplinary curriculum). In addition, Rusinko (2010b) suggests a cocurricular option that helps students go beyond their curriculum and to create real sustainability implementations. This option is applicable within any of the four methods. Figure 3.2 shows the matrix approach.

Figure 3.2 *Matrix Approach to Integrate Sustainability into Business and Accounting Education*



Adopted from Rusinko (2010b, p. 510).

Godemann, Herzig, and Moon (2011) adapted Rusinko’s (2010b) matrix and termed the four quadrants of the matrix ‘piggybacking’, ‘digging deep’, ‘mainstreaming’ and ‘focusing’. Table 3.2 shows these quadrants.

Table 3.2 *Matrix to Explain the Integration of Sustainability into Business and Accounting Curricula*

	Existing Structures	New Structures
Narrow curricula	<i>Quadrant I</i>	<i>Quadrant II</i>
	<p>Piggybacking Integration of sustainability within existing structures by adding sustainability to individual sessions of courses or modules</p>	<p>Digging deep Integration of sustainability through new stand-alone modules</p>
Broad curricula	<i>Quadrant III</i>	<i>Quadrant IV</i>
	<p>Mainstreaming Integration of sustainability within existing structures but with the emphasis on a broader cross-curricular perspective (entire curriculum)</p>	<p>Focusing Integration of sustainability through new cross-disciplinary offerings such as sustainability-related courses which are required for all business school students and new programmes</p>

Source: Godemann et al, 2011, based on Rusinko 2010b.

Painter-Morland et al. (2016) and Mburayi and Wall (2018) support the use of these quadrants to integrate sustainability into business and accounting curricula. Table 3.2's quadrants are discussed next.

3.8.1 Narrow Curricula: Piggybacking and Digging Deep Approaches to Sustainability Integration

Piggybacking is the simplest way to integrate sustainability into an existing module. For example, educators can provide students with an extra case study focusing on sustainability or add slides about sustainability to the content provided and presented in a lecture (Painter-Morland et al., 2016). Lämsä, Vehkaperä, Puttonen, and Pesonen (2008) suggest that Finnish universities take a piggybacking approach. They advocate including lectures led by visiting international sustainability experts to gain the attention of students towards sustainability issues. Painter-Morland et al. (2016) believe that a wide range of students, including the students who have not selected optional modules on sustainability, can benefit from the piggybacking' approach as they can gain general understanding of sustainability issues through this approach.

However, one drawback is that students may perceive these sustainability topics as supplementary, thus making the issue marginal. Rusinko (2010b) believes that this approach can be implemented easily and with few resources as it integrates sustainability into business schools' curricula in a nonuniform manner. To solve the problem of sustainability's being seen as of only marginal importance, Rusinko (2010b) advises that piggybacking can be more effective if educators present sustainability materials as fully integrated within modules and implicitly show students the importance of the presented sustainability topics by prioritising them and presenting them in the first half of a module instead of the second half. Hartman and Werhane (2009) show a great example of adopting an American university's piggybacking approach. In their MBA curriculum, the university added business ethics content designed by a specialist in ethics which encouraged academics to adapt the content and integrate it into their own subject areas. Those academics said that the piggybacking approach facilitates the seamless integration of sustainability into their curriculum.

Business schools usually use the piggybacking approach by adding specific sustainability subjects to an existing module, for instance, extending a financial statement analysis module with content on the potential impact of stakeholders on these kinds of statements. However, Truscheit and Otte (2007) argue that this form of integration is insufficient if it does not teach students any soft skills but merely changes the content of programmes or modules. Soft skills are skills such as conceptualising an argument and teamwork skills. In line with Truscheit and Otte (2007), Stibbe (2009) developed the concept of 'sustainability literacy' "to indicate the skills, attitudes, competencies, dispositions and values that are necessary for surviving and thriving in the declining conditions of the world in ways which slowdown [sic] that decline as far as possible" (p. 10). Painter-Morland et al. (2016) suggest that business schools can consider this concept when using the piggybacking approach even though the concept is more suitable for the remaining approaches in Godemann et al. (2011)'s adaptation of Rusinko (2010b) matrix.

Business schools which adopt the digging deep approach prepare modules with a concentration on sustainability (Painter-Morland et al., 2016). For example, Middlesex University offers optional modules on environmental management and environmental law to business school students from all disciplines (Holt, 2003). Similar to the piggybacking approach, digging deep is a simple approach of integrating sustainability into business and accounting curricula because it does not require a change to the existing curriculum structure. Thus, both approaches are similar to each other and can be perceived as 'add-on' approaches where sustainability

subjects, lectures, and slides are simply added to existing individual modules (Painter-Morland et al., 2016).

Painter-Morland et al. (2016) believe that one drawback of the digging deep and piggybacking approaches is that the way they are implemented (add-on) may give an indication to students that the presented sustainability subjects, or even the entire issue of sustainability, relate only to specialists (e.g., environmental specialists) and not accounting students and so may indicate that the mainstream employees or general managers do not have to be concerned about sustainability and related matters. Baden (2013) criticised these two approaches to sustainability integration because students who need concentrated sustainability knowledge cannot be satisfied with such approaches. However, Goworek and Molthan-Hill (2013) argue that the digging deep strategy is very useful if the sustainability module is taught in detail and in depth. Table 3.3 provides some examples, challenges, and opportunities related to piggybacking and deep digging strategies.

Table 3.3 *Examples, Challenges, and Opportunities of piggybacking and deep digging approaches*

Strategy	Example	Challenges and Opportunities	Source
Piggybacking	Inclusion of visiting lectures by leading business people about sustainability and other related issues such as CSR	Can reach many students but may be viewed as supplementary	Lamsa et al. (2008)
		Sustainability reaches students in a non-uniform manner	Rusinko (2010)
	Curriculum content on business ethics devised by ethics specialists	Can facilitate the integration of sustainability into courses in a relatively seamless manner	Hartman and Werhane (2009)
	Adding subject-specific sustainability knowledge to an existing module	Focuses on teaching students ‘soft skills’ such as teamwork and conceptualising ‘the business case’ for sustainability	Truscheit and Otte (2007)
		Indicates the skills, attitudes, competencies, dispositions and values that are necessary for surviving and thriving in the declining conditions of the world in ways which slowdown that decline as far as possible	Stibbe (2009, p. 10)
Digging Deep	Use of optional modules with a focus on sustainability	Uncomplicated technique for implementing sustainability but may be perceived as an ‘add-on’	Holt (2003)
		Modules are unlikely to be selected by the students who need them the most	Baden (2013)
		May be useful if taught in depth and allows for specialisation in certain areas	Goworek and Molthan-Hill (2013)

Reproduced from Painter-Morland et al. (2016)

3.8.2 Broad Curricula: Mainstreaming and Focusing Approaches to Sustainability Integration

Rusinko (2010b) suggests that the third approach is to integrate sustainability education into the curricula of business schools through mainstreaming. According to this approach, business schools integrate sustainability issues into common core requirements. In this way the content of sustainability subjects and topics are included in all core modules (Painter-Morland et al., 2016). For example, reflection on the principles of corporate sustainability and reflection on ethics can be integrated into accounting, economics, and marketing.

Birtch and Chiang (2014) believe that mainstreaming sustainability and related issues in all subjects can deliver a stronger message to students about the importance of such topics than a stand-alone course can do (merely digging deep). Birtch and Chiang (2014) argue that integrating ethics, which is an essential part of sustainable behaviour, throughout all core modules (mainstreaming) will create an ethical climate in the business school. This climate, as a result, will impact positively on the students' current as well as their future ethical behaviour. Similarly, integrating sustainability issues into all core accounting modules will help create a sustainable business school campus and positively influence students' sustainable behaviour and so enhance their future corporate sustainability practices.

Godemann et al. (2011) argue that sustainability should be considered from a cross-curricular perspective, which means that sustainability topics should be taught extensively throughout the entire curricula, including all modules and subjects. This perspective also includes aspects of sustainability literacy such as the soft skills discussed above. Southampton University shows a great example of adopting an innovative approach to mainstreaming (Baden, 2013). The university offered its students a core entrepreneurship module which included placements where they could work for charitable and social organisations. Painter-Morland et al. (2016) argue that such activities lead students to learn about social sustainability through direct experience which is much better than learning based on only theoretical content. The students are also asked to evaluate the benefits of their placements. Painter-Morland et al. (2016) believe that this innovative way of integrating sustainability into the core curricula helps bridge the gap between the digging deep and mainstreaming approaches by making students appreciate the importance of sustainability and subjects related to it.

The fourth quadrant in the matrix developed by Rusinko (2010b) explains how to integrate sustainability education into business schools' curricula using a focusing approach. This

approach to integration addresses the broad curricula; however, it necessitates new curricula structure (Painter-Morland et al., 2016). A good example of this approach is the one adopted by Kurland et al. (2010). They developed an interdisciplinary undergraduate sustainability programme that is appropriate for most disciplines in business schools. The programme introduces the principles of sustainability and its implications for science, businesses, governments, intergovernmental organisations, and the public.

Additionally, the module demonstrates a general understanding of obstacles to sustainability encountered in the 21st century. The University of Exeter's new 'One Planet MBA' programme offers another example of the use of the focusing approach (Roome, 2005). In this regard, Painter-Morland et al. (2016) note that the university transformed its broad MBA curriculum and in so doing gave the curriculum a new structure by integrating sustainability into the whole curriculum and adding interdisciplinary perspectives.

Transdisciplinary and interdisciplinarity can also be effective tools under the focusing approach (Painter-Morland et al., 2016; Stubbs & Schapper, 2012). For example, the University of Leuphana in Germany offers transdisciplinary courses to all its students and not only to those from the business school. Transdisciplinary courses are available to students from other faculties and different disciplines. These courses teach the students, as groups, how to work in an interdisciplinary manner. Previous studies, for example Stubbs and Schapper (2012), effectively demonstrate the importance of the content and teaching methods of interdisciplinary courses in supporting sustainability education along with systems thinking.

Chhokar (2010) found that both students and staff in Indian universities lack interdisciplinary skills, particularly in the case of integrating sustainability into the curriculum. Chhokar (2010) also argues that business students should be encouraged to work within a team of colleagues from other disciplines. According to Currie, Knights, and Starkey (2010), the curricula of business schools are designed across different functional lines and so they do not support the integration perspective which is necessary for better understanding of sustainability issues. Table 3.4 provides examples along with some of the challenges and opportunities of both mainstreaming and focusing strategies.

Table 3.4 *Examples, challenges and opportunities of mainstreaming' and focusing approaches*

Strategy	Examples	Challenges and Opportunities	Source
Mainstreaming	Integrate sustainability into common core requirements	May encompass integrating content of sustainability-related tools	Rusinko (2010)
	Offer students placements within social enterprises or charities	Approach should go along with emphasis on a broader cross-curricula perspective (soft skills)	Godemann et al (2011), Stibbe (2009)
		Learn about social sustainability from direct experience	Baden (2013)
Focusing		Sustainability can be included across the whole curriculum, adding interdisciplinary perspectives	Roome (2005)
		Content and the students are from different disciplines and can practise in this group how to work in an interdisciplinary way	Kurland et al (2010)
	Set up a new programme	A project-based learning module setup enables both interdisciplinary and cross-cultural learning	Stubbs and Schapper (2012)
	Add new (transdisciplinary) module in all programmes	Students learn respect for other disciplines through interdisciplinary skills of both students and staff may not be always present	Chhokar (2010)
		Business schools' curricula are typically designed across functional lines not interdisciplinary lines	Currie et al (2010)
	Business schools are too much focused on well-designed problems rather than 'messy' real-world problems	Schoemaker, (2008)	

Reproduced from Painter-Morland et al. (2016)

3.8.3 Stakeholder Approach to Integrating Sustainability into the Accounting Curriculum

Integrating sustainability education into the accounting curriculum requires education providers (in this case accounting educators) to prepare for this education in universities. This preparation includes deciding on what approaches to adopt from Rusinko's (2010) matrix, how to develop sustainability accounting materials (content) to teach, how to teach these materials

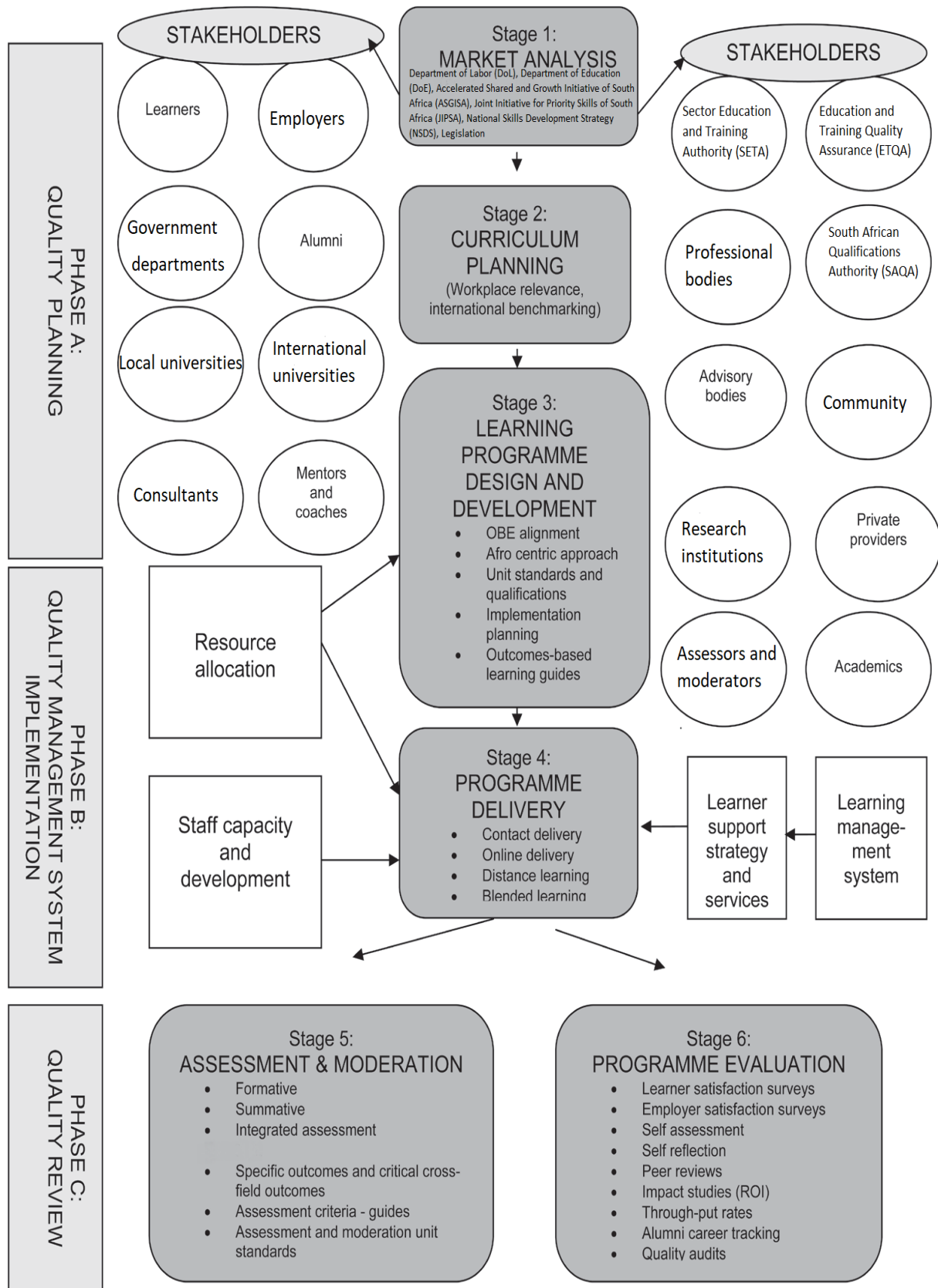
(pedagogies), and how to assess students' academic performance. Because corporate sustainability practices are a matter of treating stakeholders (e.g., society and the environment), sustainability accounting education should also consider the needs of stakeholders. As discussed in the theoretical framework chapter of this study, the accounting curriculum should meet the needs and expectations of its stakeholders. Thus, developing sustainability accounting learning objectives, content, and pedagogies should consider different stakeholders' engagement.

Meyer and Bushney (2008) developed a multistakeholder-driven model for preparing new learning materials (e.g., materials of a course or programme on sustainability accounting) based on a multistakeholder perspective. Their model consists of three main phases aligned to the planning and implementation of a quality management system for a learning programme. These phases are: first, quality planning, which covers planning issues concerning programme development; second, quality management system implementation, which deals with the implementation of the quality management system when the learning programme is delivered; and, third, quality review, which includes the process to ensure that the learning programme meets the quality standards to be achieved (e.g., objectives and outcomes). Figure 3.3 (next page) shows these three steps.

The first phase (Phase A) of the model in Figure 3.3 is quality planning. This phase includes three stages: market analysis, curriculum planning, and learning programme design and development. Wolfson (2007) argues that learning programmes development projects should not take place in a vacuum, without taking cognisance of proper market analysis, because ignoring the market analysis will result in several qualifications and learning programmes that are interesting to the course designer but which do not necessarily meet a particular market need. Thus, a proper market analysis (Stage 1 in the figure) based on real national, regional, or international imperatives is needed to ensure that the developed course meets the needs of stakeholders.

According to Meyer and Bushney (2008), such a market analysis may identify national and regional knowledge and skills gaps that have been identified by different related parties within the market context. They believe that the market analysis should identify the existing needs before addressing them. They also suggest that extensive stakeholder engagement is needed to ensure a proper market analysis.

Figure 3.3 *Multistakeholder-driven Model for Excellence in Higher Education Curriculum Development.*



Reproduced from Meyer and Bushney (2008, p. 1233).

According to Meyer and Bushney (2008), the purpose of curriculum planning (Stage 2) is to ensure that the required course is relevant to multistakeholders' needs so that a set of objectives and goals can be prepared later (i.e., ensure that learning objectives and goals will be compatible with stakeholders' needs). Meyer and Bushney (2008) suggest that moving from stage one (market analysis) to stage two (curriculum planning) requires deep and focused understanding of the salient stakeholders' needs through more focus on salient stakeholders' engagements and liaison.

Mitchell et al. (1997) identify salient stakeholders according to their power, legitimacy, and urgency (see chapter 4, the theoretical framework). Based on this identification, Meyer and Bushney (2008) suggested different salient stakeholders that need to participate in the curriculum planning stage (Stage 2) of their framework. Amongst these salient stakeholders are educators, students, professional bodies, government, employers, and employees (business organisations). Thus, these salient stakeholders should engage and participate in the curriculum planning stage and with more focus on understanding their needs and expectations.

Stage three (see Figure 3.3) involves the learning programme design and development where the implementation of the results of the planning stage (Stage 2) takes place. Once the needed inputs have been received from salient stakeholders and analysed and understood in the previous stages (i.e., needed objectives and skills have been determined), the programme can be designed and developed for teaching (Meyer & Bushney, 2008). In this stage, the necessary knowledge areas are developed and specifically highlighted. These knowledge areas should address the learning objectives and skills development planned for in the planning stage (Stage 2). Stage three includes also the learning guides and resources that need to be allocated to serve the designing and development (e.g., specific textbook as a source and guide to teaching and learning) (Meyer & Bushney, 2008).

While the quality planning phase (Phase A in Figure 3.3) covers all the planning issues of curriculum development, the quality management system implementation phase (Phase B in Figure 3.3) deals with the implementation of the quality management system when the learning programme is delivered to students (Meyer & Bushney, 2008). This phase consists of one stage—Stage 4 in Figure 3.3—the programme delivery. In other words, this stage aims to highlight the teaching and learning pedagogies of the learning programme. Van der Spuy and Wocke (2003) and Nel and Dreyer (2005) suggest that these pedagogies can be, for example, face-to-face, online delivery, distance learning, blended learning, or a combination of different

modes. In their framework, Meyer and Bushney (2008) suggest that a learner support strategy is needed to ensure that high-quality learner support is provided when the programme is delivered. This strategy is maintained by a proper learning management system that facilitates capturing students' records and tracks their progress. The effective implementation of a quality management system requires sufficient resource allocation and staff capacity and development at the tertiary education institution (universities).

The quality review phase (see Phase C, Figure 3.3) consists of conducting a quality review to evaluate whether the learning programme meets the quality standards that have been set (Meyer & Bushney, 2008). These quality standards are based on the extent to which stakeholders' needs have been adequately addressed during the programme delivery (Meyer & Bushney, 2008). Thus, this phase also requires stakeholder engagement. Stage five of this phase (Stage 5 in Figure 3.3), which concerns assessment and moderation, is necessary to ensure that the programme outcomes have been achieved and that students who have taken it are competent and ready to enter the market.

Stage six in Figure 3.3—programme evaluation—aims to ensure that the overall learning programme is evaluated to determine its future influence on stakeholders (e.g., students, society, and workplace). Meyer and Bushney (2008) argue that educators, particularly those in developing countries, either do not spend enough time and resources on the evaluation process or that the process is fragmented and uncoordinated. This evaluation process is performed after the course delivery and under a stakeholder lens. Different types of evaluation methods can be used as a quality review mechanism. For example, Coladarci and Kornfield (2007) suggest that a learner satisfaction survey is distributed to students at the end of the course. Berkhout (2006) suggests a peer review process where external experts evaluate the course. Hendel and Lewis (2005) propose a quality audits method where a review and evaluation of course elements are performed by third parties. Using such techniques and utilising the results of the evaluation to improve the programme accordingly will help create a culture of continuous improvements that finally produces a high-quality learning programme.

This PhD study follows Meyer and Bushney's (2008) approach in developing a salient stakeholder-driven model for sustainability accounting education in Jordan because their approach ensures the engagement of salient stakeholders in developing the learning programme, an essential element for this PhD study (see research aims and questions in chapter 1). The next

section reviews salient stakeholders' perceptions of sustainability integration into the accounting curriculum.

3.9 Prior Studies on Stakeholders' Perceptions of Sustainability Accounting Education

Meyer and Bushney (2008) and Sen et al. (2010) believe that various groups of stakeholders such as industry practitioners, educators, students, regulators, and politicians and their needs are important to effectively integrate sustainability education into the accounting curriculum. They argue that the effective development of sustainability accounting as well as any other sustainability business courses necessitates an extensive engagement with different groups of related stakeholders.

However, according to the researcher's investigation in this study, the accounting literature does not show clearly the engagement of salient stakeholders in the process of integrating sustainability education into the accounting curriculum; rather, it reflects their perceptions separately. For example, some studies expressed the perceptions of only the educators whereas other studies expressed the perceptions of only students, and only a few studies considered the perception of industry practitioners. Most importantly, these studies consider only the stakeholder perspective as they explore the perceptions of stakeholders without highlighting their influence on the integration process.

The stakeholders' perspective does not distinguish between stakeholders and salient stakeholders. Unlike these studies, this PhD study considers the salient stakeholder perspective i.e., it attempts not only to understand stakeholders' perceptions but also their influence on the integration process (power, legitimacy, and urgency). The next sections discuss stakeholders' perceptions towards integrating sustainability education into accounting and business curricula.

3.9.1 The Industry's Perception of Sustainability Accounting Practice and Education

Incorporating sustainability into conventional accounting and management systems requires considerable system reforms in addition to new skills and competences for practitioners, both managers and accountants (Sen et al., 2010). Fortes (2002) highlighted this notion by suggesting that managers and accountants would need to consider the scope of the needed accounting changes if organisations decided to respond to issues such as full environmental costs being integrated into capital budgeting and cost allocations. Unlike those in developing countries, organisations located in developed countries such as the USA, Japan, and Australia

adopt environmental accounting and reporting practices successfully because they can follow different disclosure guidelines (Frost & English, 2002; Kokubu & Nashioka, 2005, 2008). Companies in most developing countries practise only voluntary disclosure, and they lack comprehensive guidelines on sustainability accounting and reporting (Sen et al., 2010).

Accountants and operating managers of organisations in developing countries recognise their weaknesses in terms of being oriented and involved in the environmental activities of their organisations and cannot perceive the significance of sustainability accounting (Sen et al., 2010). These managers and accountants believe that a reason behind their weaknesses is that environmental issues did not play a part in their tertiary education curriculum. For example, the low level of environmental reporting practices of Indian organisations is due to a lack of knowledge and expertise (Sen et al., 2010).

Pahuja and Bansal (2006) found that managers and accountants of Indian organisations acknowledge the importance of environmental accounting and they support environmental mandatory disclosures. However, Sen et al. (2010) believe that managers and accountants' acknowledgement is insufficient to bring real change to corporate practices that cope with the sustainable development agenda. Thus, future managers and accountants should be exposed to several sustainability accounting issues. They also believe that one way to do so is by integrating sustainability education into the accounting curriculum and other business disciplines' curricula.

Very few studies have captured the perception of industry (e.g., operating managers, corporate accountants and auditors) about the issue of sustainability accounting, particularly in developing countries (Belal, 2008; Belal & Owen, 2007; Collison & Gray, 1997; Jaggi & Zhao, 1996; Lodhia, 2003). These studies did, however, find strong evidence of the significance and relevance of sustainability accounting information. For example, Pahuja and Bansal (2006) found that accountants acknowledge the disclosure of sustainability information in India and they believe that the disclosure of environmental information is particularly important for the decision-making of management and other stakeholders.

Prasad (2006) found that shareholders and individuals within organisations believe that sustainability information is highly relevant in business decision-making. Malarvizhi (2007) argues that managers and accountants believe that sustainability reporting strengthens the status of sustainability reporting in organisations located in India and is also beneficial for improving the corporate image. Pramanik, Shil, and Das (2009) consider issues that are associated with

sustainability accounting and identify the need for corporate sustainability accounting and reporting. However, Pradhan and Pattnaik (2007) found in their empirical study on Indian organisations that executives are reluctant to disclose adverse sustainability information because such disclosures can threaten confidentiality in sensitive areas and, thus, may impact on the competitive position of organisations.

Sen et al. (2010) attempted to assess the perception of industry practitioners (i.e., chartered accountants, financial managers and managers in financial services) in the top 100 organisations located in India towards developing a course on sustainability accounting for business schools in India. The study built part of its questionnaire on 12 significant topics summarised from the literature, and participants were asked to rank these topics on a five-point rating scale based on their importance. The purpose of this rating was to explore the relative importance attached to each topic and so to help develop the needed sustainability accounting course. Table 3.5 shows the dimensions summarised from the sustainability accounting literature (topics) and its resources in the existing literature. Table 3.6 then shows the order given by the participants to the related topics.

Table 3.5 *Dimensions Summarised from the Literature*

Dimension	References
History of Corporate Environmental Accounting	Newell & Muro (2006), Thomassin & Cloutier (2004), Chauhan (2005)
Environmental Accounting Standards and Regulations	Yakhou & Dorweiler (2002), Pramanik et al. (2009)
Environmental Cost Measurements, Methods and Systems	Bebbington, Gray, Thomson, & Walters (1994), Joshi, Krishnan, & Lave (2001), Kitzman (2001), Yakhou & Dorweiler (2004)
Environmental Accounting Information for Corporate Sustainability	Yakhou & Dorweiler (2002), Yakhou & Dorweiler (2004)
Environmental Accounting for Financial Decision-Making	Kitzman (2001), Thomas (2005), Rodgers & Housel (2004)
Environmental Performance Measurement System	Bebbington et al. (1994), Grinnell & Hunt (2000), Xiaomei (2004), Das et al. (2008)
Environmental Liabilities, Spending and commitments	Ghany (2008), Das et al. (2008)
Environmental Tax issues and Pollution Allowances	Grinnell & Hunt (2000), Das et al. (2008)
Environmental R&D and Life Cycle	Jonese & Morrell (1966), Bovea & Wang (2003), Johnstone & Labonne (2007)
Environmental Audit Issues	Yakhou & Dorweiler (2002), Badrinath & Raman (1995)
Monitoring Real-World Environmental Systems	(Joshi et al. (2001), Delmas & Toffel (2004)
Market Reactions and Corporate Valuation	Dowell, Hart, & Yeung (2000), Li & McConomy (1999)

Reproduced from Sen et al. 2010, p. 101

Table 3.6 *Topics as Ranked by Participants*

Ranking	Topic
1	Environmental Accounting Standards and Regulations
2	Environmental Tax Issues and Pollution Allowances
3	Environmental Cost Measurements, Methods and Systems
4	Environmental Liabilities, Spending and Commitments
5	Environmental R&D and Life Cycle Assessment
6	Environmental Accounting for Financial Decision-Making
7	Monitoring Real-World Environmental Systems
8	Environmental Audit Issues
9	Market Reactions and Corporate Valuations
10	Environmental Accounting Information for Corporate Sustainability
11	Environmental Performance Measurement System
12	History of Corporate Environmental Accounting

Adopted from Sen et al. 2010, p. 103

Sen et al.'s (2010) results show that sustainability accounting and reporting are considered as important from the viewpoint of industry and that practitioners strongly demand a separate sustainability accounting format, which means that there is a need to integrate a course on sustainability accounting into the accounting curriculum. However, one could argue that Sen et al.'s study has ignored social aspects. Society is one dimension of sustainability and the literature shows the importance of society as an essential dimension in the sustainability issue. Therefore, any questionnaire that is developed should consider social as well as environmental issues, and the required course should aim to meet social needs and expectations.

3.9.2 The University's Perception of Sustainability Accounting Education

Twenty-five years ago, Owen et al. (1994), and Humphrey, Lewis, and Owen (1996) investigated the state of sustainability accounting education in British universities. Their studies revealed that sustainability accounting was viewed as a marginal issue and was not widely taught at that time. However, educators who taught papers on sustainability accounting believed that sustainability accounting courses were significant due to their pedagogic value. The findings of Watt (1998) also indicated that academics worldwide believe that sustainability accounting should be part of both university education and professional training. Humphrey et al. (1996) explored the barriers to the development of sustainability accounting. Their study found that one significant barrier was the powerful impact of the professional accounting bodies' accreditation process. Professional accounting bodies were influential because they determine what was core and appropriate in accounting education. Another barrier was that

universities and academics face pressures such as funding constraints and pressure on research output.

More recently, Mangion (2006) reviewed social and environmental accounting education in Australian universities and replicated the studies of Owen et al. (1994) and Stevenson (2002). Mangion's (2006) study found that sustainability accounting was gaining acceptance in undergraduate curricula. She concluded that the most important reason for teaching sustainability accounting is to increase students' awareness of social and environmental commitments in terms of corporate behaviour. Prior studies about the perceptions of students on sustainability courses offered at a tertiary level are positive (Kagawa, 2007; Von Der Heidt & Lamberton, 2011). For example, Thomas' (2005) study identifies students' perception of environmental accounting. He also investigated the significance of environmental accounting for decision-making in organisations. He found that students believe that sustainability information is relevant to managerial decision-making. Coulson and Thomson (2006) found that the role of accounting in sustainability influences the need to design a sustainability accounting course to be integrated into specific areas of accounting such as management accounting.

A survey conducted on students from Southern Cross University in Australia by Von Der Heidt and Lamberton (2011) found that students strongly believe that courses such as ethics and sustainability and sustainable business management which were provided as part of their syllabus are important and relevant to the accounting discipline. That finding indicates that students may prefer to have more sustainability education within their curriculum. Moreover, a study conducted by Kagawa (2007) on the understanding and perception of students towards sustainable development at the University of Plymouth revealed that over 90% of students had a positive reaction to the idea of sustainability education.

Sharma and Kelly (2012) explore accounting and business students' perception towards sustainability teachings and to explore the students' attitudes towards their sustainability courses. The students were from a regional university in New Zealand. Using a questionnaire survey, the study collected 60 students' opinions. The study found that most students lacked prior knowledge of sustainability, a finding which demonstrates the necessity for higher education to provide students with basic courses on sustainability. The study also found that the majority of students perceive sustainability education positively and that students who had core papers on sustainability found the papers useful. Many students also felt that it is important

to include sustainability papers as compulsory in the curriculum. Sharma and Kelly (2014) argue that students are more influenced by conventional, mandatory accounting courses such as financial and management accounting. Students believe that such courses are more relevant to and practical for their future careers (Hazelton & Haigh, 2010). MacVaugh and Norton (2012) argue that management and business students attempt to obtain only the necessary education that provides the professional skills and knowledge required for their jobs in the future. Sharma and Kelly (2014) believe that this attitude discourages students from studying issues of environmental and global concern. Carr, Chua, and Perera (2006) investigate the views of 236 accounting graduates in New Zealand on the design of accounting programmes. The study also explores the key characteristics of an accounting curriculum that should be considered when designing a programme for accounting. Their findings support the view that it is no longer appropriate for higher education providers to adopt a one-size-fits-all approach. The findings also indicate that the social and environmental perspective should have a place in accounting programmes along with other perspectives such as global and local perspectives and professionalism. The study finally recognises the importance of stakeholders in designing accounting programmes.

Mangion (2006) lists the available and proposed options for teaching sustainability accounting. These options are: the inclusion of sustainability accounting in conventional accounting courses; offering sustainability accounting as an independent module of study in the syllabus; creating specialised curriculum routes in sustainability accounting; and, finally, the inclusion of sustainability accounting in the general study module on accounting theory. Hazelton and Haigh (2010) and Rusinko (2010a) support Mangion's list and suggest approaches that can be adopted to integrate sustainability into the business and accounting curriculum. The first approach entails the introduction of sustainability topics and materials into existing courses, whereas the second approach separates such topics and materials into stand-alone courses. The second approach is also supported by scholars such as Christensen et al. (2007). Stand-alone courses provide students with a more comprehensive and detailed explanation of the sustainability concept and its principles (Stubbs & Schapper, 2012).

While stand-alone courses develop expertise in the sustainability area (Rusinko, 2010a), Stubbs and Schapper (2012) argue that one drawback of stand-alone courses is, however, that students may perceive sustainability as a separate issue disconnected from other business subjects and courses (e.g., courses such as accounting, economics, legal environment, and corporate finance). According to Stubbs and Cocklin (2008), students need to understand different

interpretations of sustainability if they are to avoid educational disconnection in business. A stand-alone course may be perceived as irrelevant to the core subject of study because its content is not encountered elsewhere (Thomas, 2004). Bates, Silverblatt, and Kleban (2009) argue that business schools integrate more sustainability papers into their postgraduate curriculum than into the undergraduate curriculum. A study conducted by Bates, Silverblatt, and Kleban (2010) on 26 undergraduate business schools in the USA showed that only 10 schools offered at least one sustainability course. It is believed that the lead graduate courses have over undergraduate courses is due to a greater professional commitment by graduates towards sustainability issues (Greenspoon, 2008).

Botes et al. (2014) conducted a study using interviews and online surveys to determine the perceptions of academics and graduates on the extent and adequacy of sustainability education in New Zealand universities. Their study revealed that academics recognised the key role accountants should play in sustainability reporting. However, they expressed concern about the current state of sustainability reporting as well as the current university teaching approaches to sustainability. Although the study showed that graduates recognise the important role of accountants in sustainability reporting, a considerable number of students felt that their study of sustainability was inadequate and that sustainability education needs more attention. Such findings suggest that accounting educators need to be more engaged in sustainability education initiatives. Botes et al. (2014) and Wyness and Dalton (2018) revealed not only that sustainability education should be integrated in the form of separate stand-alone courses, but also that there was a need for sustainability to be embedded in all accounting papers.

A study conducted in business schools in the Asia Pacific region by Naeem and Neal (2012) measures the number of courses and programmes incorporating sustainability. The findings revealed that although papers such as corporate governance, sustainability and business ethics were commonly taught in schools of business, these papers were not generally prioritised. Furthermore, many business schools in the region paid no attention to other important papers such as corporate social responsibility and social business. The study also found that while most faculty members recognise the importance of sustainability education, they simply do not integrate it into their teaching and learning activities. In addition, an overall lack of systematic approaches to integrating sustainability in business curricula was found.

Zulkifli (2011) explores the perception of accounting academics' teaching in Malaysia's universities towards the elements and roles of social and environmental accounting. The study

also determined academics' perception of the relevance and significance of studying sustainability accounting. The study aimed to investigate accounting educators' opinions on conventional accounting education. The results from 222 questionnaires administered to both public and private universities in Malaysia found that accounting educators perceive the elements of environmental and social accounting as positive and that they lead to increased moral and ethical awareness towards society, the environment, and corporate behaviour in accounting students. Accounting educators believe that all higher education institutions in Malaysia need to follow a formal approach to social and environmental accounting education. They also believe that institutions of higher education are best placed to increase social and environmental awareness and ethical values. Therefore, the findings indicate the need to develop and adopt a new approach to teaching sustainability accounting education rather than simply retaining the conventional approach.

An interesting study conducted by Pattanayak, Sen, and Choubey (2011) attempts to evaluate the perception of management students in Indian universities towards integration of a course on environmental accounting in Indian management education. The study adopted the method used by Grinnell and Hunt (2000) and Das et al. (2008). In their study Pattanayak et al. (2011) provided MBA students with a course on environmental accounting in the form of an intervention. They first gathered the students' perceptions before the intervention and then after it to analyse its impact on them. Using a questionnaire survey, they assessed the change in the perception level of the students. Students were also asked to rank a set of dimensions and then to prioritise twice (before and after the intervention).

The dimensions used by Pattanayak et al. (2011) seem similar to those used in Sen et al.'s (2010) study mentioned above in Table 3.5 to assess the perception of industry practitioners. Pattanayak et al. (2011) found that although students lacked awareness of environmental accounting the intervention did have a considerable positive impact on the students' perceptions. There was an improvement in the students' perceptions towards environmental accounting after the, intervention and so the intervention had succeeded in increasing the students' awareness of environmental accounting. Table 3.7 (next page) shows the dimensions, its resources from the literature, and students' rankings. The most important study to align with this PhD study is that by Choubey and Pattanayak (2014). This Indian study is different from all the previous studies mentioned above in that it considers several groups of stakeholders rather than separate groups such as students, academics, or practitioners. Choubey and Pattanayak's study aims to assess the perception of different stakeholders including

management students, educators, industry practitioners, and representatives of regulatory bodies towards the importance of environmental accounting integration into the curriculum of Indian management education.

Table 3.7 *Dimensions Prioritised by Students Before and After the Intervention*

S. No	Dimensions	Reference	Ranks before	Ranks after
1	History and basic framework of corporate environmental accounting	Das et al. (2008), Comite (2009)	6	9
2	Environmental accounting standards and regulations	Dowell et al. (2000), Yakhou & Dorweiler (2002), Pramanik, Shil, & Das (2008)	11	12
3	Environmental cost accounting methods and systems	Bebbington et al. (1994), Kitzman (2001), Yakhou & Dorweiler (2002)	9	10
4	Environmental accounting information for business reporting	Bebbington et al. (1994), Rodgers & Housel (2004)	10	7
5	Environmental accounting information for decision making	Kitzman (2001), Rodgers & Housel (2004), Thomas (2005), Carr et al. (2006)	12	11
6	Environmental performance measurement systems	Bebbington et al. (1994), Das et al. (2008)	5	3
7	Environmental liabilities and contingencies	Smith (2003), Boyer & Porrini (2008), Pramanik et al. (2008)	3	4
8	Environmental tax issues and pollution allowances	Grinnell & Hunt (2000), Das et al. (2008)	8	6
9	Linkage of environmental reporting with CSR and corporate governance	Rondinelli & Berry (2000), Strandberg (2005)	2	2
10	Global environmental issues and reporting practices	Bebbington et al. (1994), Pahuja & Bansal (2006), Pramanik et al. (2008)	7	8
11	Application of environmental accounting in solving real word corporate environmental problems	Carr et al. (2006), Pramanik et al. (2008)	4	5
12	Impact of environmental accounting on market reactions and valuations related to environmental variables	Pramanik et al. (2008)	1	1

Reproduced from Pattanayak et al. (2011, pp. 31, 35)

However, the current doctoral study is different from that of Choubey and Pattanayak in that it investigates the salient stakeholders. That is, it investigates not only stakeholders' perceptions towards integrating sustainability education into the accounting curriculum, but also their influence on the integration process as indicated by the salient stakeholder theory (power, legitimacy, and urgency).

The study of Choubey and Pattanayak (2014) first attempted to understand the requirements of the different existing stakeholders when integrating environmental accounting into management education. Stakeholders were categorised into two groups. The first group encompasses the student community while the second includes chartered accountants, cost accountants, finance managers from different industries, educators, and representatives of regulatory bodies. The student community was considered as a distinct group because students tend to be overlooked in the development of curricula; however, their role in developing the course structure is essential (Chen & Hoshower, 1998). A questionnaire survey was administered to all stakeholders to assess their perception of the integration of environmental accounting into the curriculum. A total of 309 stakeholders were considered for this study.

The study follows and builds on the studies of Sen et al. (2010) and Pattanayak et al. (2011). It uses the same 12 important dimensions summarised from the literature on environmental accounting (see Table 3.5 and Table 3.7 above). The difference between these studies and Choubey and Pattanayak's study is that Choubey and Pattanayak (2014) considered different groups of stakeholders. The major finding of their study is that all stakeholders perceived environmental accounting as a worthwhile subject to be included into the curriculum. The study also calls for an increase in students' awareness of the integration of environmental accounting into major business disciplines curricula, particularly the accounting curriculum.

Research and empirical studies show that the level of integrating sustainability education into business and accounting curricula is mixed. Some studies found that integration is marginal for accounting, whereas others believe in its significance. However, over time, sustainability accounting education has gained more attention and consideration. Therefore, some of the more recent studies have also proposed methods to integrate sustainability accounting into the traditional accounting curriculum. As a result, stand-alone courses on sustainability accounting have begun to appear in business schools, in addition to the topics on sustainability issues found within some accounting courses such as in management accounting courses.

A few prior studies also found that both academics and students have a positive perception towards courses that integrate sustainability accounting into the curricula, although students were influenced by the traditional accounting curriculum (e.g., Zulkifli, 2011). As noted earlier, in some cases students were more interested in having only the knowledge and skills needed to gain a future position, and so that viewpoint may reflect an unwillingness on the part of employers and professional bodies to incorporate sustainable activities. Studies that assess the industry's perception of the integration of sustainability accounting into the accounting curriculum are rarer than those which investigate the perceptions in universities. However, these few studies show that practitioners believe that sustainability accounting practice and education are both important. They, therefore, seem to support the integration of sustainability accounting into the accounting and other business disciplines' curricula because they think that sustainability accounting education improves students' skills and so future practitioners' skills in the business fieldwork. The next section summarises the literature gaps.

3.10 Summary of Gaps in the Literature

The literature indicates that business organisations have to be responsible and accountable for their externalities. Business organisations have to meet stakeholders' needs and expectations in terms of better sustainability practices. The literature suggests that sustainability accounting has a key role to play in supporting better sustainability practices. However, the obvious global environmental consequences of industrialisation indicate that sustainability practices are not seriously taken into consideration in business organisations.

This PhD study focuses on how sustainability accounting education can address the gap in weak corporate sustainability practices. The literature shows that tertiary education plays a vital role in educating current students who will become future managers. They, therefore, need to be able to think critically and take decisions that would improve corporate sustainability practices. However, the literature shows a gap in that current accounting education is traditional and designed not to support sustainability practices. To address this situation, this PhD study investigates integrating sustainability education into the accounting curriculum.

The literature presents a range of practical studies that assess the perceptions of stakeholders toward the integration of sustainability education into the accounting curriculum. However, a missing element in these studies is that most of these studies considered only one group of stakeholders (e.g., students, educators, or industry practitioners). Any investigation of different groups of stakeholders in one study is hard to find. To address this omission this PhD study

investigates a wider group of stakeholders' perceptions and triangulates these perceptions to develop a sustainability accounting education model.

An important gap in the literature is that most, if not all, the literature discusses stakeholders' perceptions of sustainability accounting education using only the stakeholder perspective. One of this PhD study's theoretical contributions is that it adopts the salient stakeholder theory in the investigation (see chapter 4). While the stakeholder perspective enables researchers to understand different perceptions of stakeholders on sustainability accounting education, this PhD study attempts to understand not only the stakeholders' perceptions but also their influence on integrating sustainability education into the accounting curriculum.

Another gap in the literature relates to the scarcity of studies that focus on developing countries including Middle Eastern countries. The current literature focuses strongly on understanding the perceptions of stakeholders on sustainability accounting education in developed countries. However, little is known about sustainability accounting education in developing countries, particularly those in the Middle East. This knowledge gap is addressed by this study. This study was conducted in the context of Jordan, a country which is similar to other Middle Eastern countries in terms of its language, religion, culture, and traditions. This PhD study enriches the literature of developing countries, particularly in those in the Middle East.

In short, this study is different from other studies in the field of sustainability accounting education because it considers wide groups of salient stakeholders in one study and triangulates their key perceptions to develop a salient stakeholder-driven model of sustainability accounting education in a particular Middle Eastern developing country—Jordan. The study also differs from other studies in this field because it not only investigates salient stakeholders' perceptions, but also examines their influence on the integration process of sustainability accounting in light of stakeholders' power, legitimacy, and urgency as explained next in the theoretical framework chapter.

Chapter 4

Theoretical Framework

4.1 Introduction

This chapter discusses the theoretical framework adopted for this study. This study investigated the integration of sustainability education into the accounting curriculum in Jordan. Salient stakeholder theory was adopted to identify and classify the Jordanian salient stakeholders in order to develop an understanding of their influence on the development of sustainability education in the accounting curriculum. There are two sections in this chapter. The first section explains stakeholder theory before discussing how that theory has been used in prior studies on accounting education development. Salient stakeholder theory is an extension of stakeholder theory. This study applies salient stakeholder theory in analysing the findings. The second section, therefore, discusses salient stakeholder theory and its related model. It also discusses the salient stakeholders' roles in the development of accounting education, before discussing their different levels of involvement in accounting curriculum development. The chapter then presents the theoretical framework developed for this study. Finally, a summary of the chapter is provided.

4.2 Stakeholder Theory

Freeman (1984) defines a stakeholder as “any group or individual who can affect or is affected by the achievement of the organisation's objectives” (p. 46). The earliest steps that can be traced towards the development of stakeholder theory in the management literature were made by the Stanford Research Institute (SRI) in California in 1963. Initially, stakeholder theory was a theory of strategic management which aimed to change the notion that stockholders are the only group to whom management needs to respond (Freeman, Harrison, Wicks, Parmar, & De Colle, 2010). Stakeholders as a concept were originally defined by the SRI's researchers as “those groups without whose support the organisation would cease to exist” (Freeman et al., 2010, p. 31). These groups of stakeholders include lenders, suppliers, employees, customers, and society. Freeman (1984) and Freeman et al. (2010) argue that an organisation, particularly its executives, should understand the needs and concerns of their stakeholder groups, otherwise they will not be able to formulate the corporate objectives that are necessary for the continued survival of the organisation. Earlier, scholars such as Wommack (1979) also stated that

corporate objectives should satisfy stakeholders' expectations to create value for the organisation and society. In defining stakeholder theory, Freeman, Wicks, and Parmar (2004) argue that organisations are a means through which different stakeholders work to improve everyone's stake. Donaldson and Preston (1995), Harrison and Freeman (1999), and Freeman (2004) suggest that stakeholder theory addresses two important issues: first, questioning the purpose of an organisation and second, examining the responsibility of management to the related stakeholders.

Much of the debate around stakeholder theory relates to whether the theory is primarily normative or instrumental (Deegan, 2002; Hasnas, 1998; Moir, 2001). Donaldson and Preston (1995) believe that stakeholder theory has three distinct strands including descriptive accuracy, instrumental power, and normative validity. The normative strand of stakeholder theory interprets the purpose of the organisation. The descriptive strand aims to explain how organisational stakeholders behave in line with stakeholder theory, while the instrumental strand of stakeholder theory investigates linkages between corporate performance and stakeholder management. Despite debate on these three strands of stakeholder theory, different scholars agree that the base of stakeholder theory is the normative strand (Donaldson & Preston, 1995; Freeman, 1984; Parmar et al., 2010) and that it includes the modern theory of property rights, which is fundamental for stakeholder theory (Donaldson & Preston, 1995).

According to Freeman (1984), stakeholders of an organisation can be investigated from different theoretical perspectives including the corporate social responsibility, corporate planning, organisation theory, and system theory perspectives. Freeman (1984) argues that all these perspectives are relevant to stakeholder theory. Freeman (1984) also suggests that stakeholder theory can not only be viewed through different theoretical perspectives, but also that it is about entities (groups, individuals, institutions) that can influence or be influenced by the organisation. It is also about managerial actions that respond to these entities' needs.

This PhD study is influenced by Freeman's (1984) approach to stakeholder theory as it aims to provide educational providers (educators and the Ministry of Higher Education) with a model that helps them identify key stakeholders and to respond accordingly to their claims (needs and expectations). However, key stakeholders can be defined in several ways based on stakeholder categorisation. For example, Blair and Whitehead (1988) categorise stakeholders as marginal,

supportive, mixed blessing,⁹ and unsupportive stakeholders. These categorisations are based on stakeholders' ability to threaten or cooperate with the organisation. Fottler, Blair, Whitehead, Laus, and Savage (1989) classify stakeholders on the basis of their percentage of identification. They believe that key stakeholders are those who are identified by at least 25% of respondents (e.g., managers) as key stakeholders. This PhD study adopts Mitchell, Agle, and Wood's (1997) approach to defining key stakeholders. They identify key stakeholders as salient stakeholders and categorise these stakeholders into latent stakeholders, expectant stakeholders, and definitive stakeholders on the basis of their possession of power, legitimacy, and urgency (see section 4.4). The current study argues that to integrate sustainability education into the accounting curriculum, it is essential to understand who the salient stakeholders of this curriculum are and how they influence the integration process through practising their power, legitimacy, and urgency. The next section discusses the stakeholders in accounting education before justifying the use of salient stakeholder theory specifically in this study.

4.3 Stakeholders in Accounting Education Development

Null (2016) believes that the curriculum is the core of the educational process because it guides both teachers and students on what should be taught and learned and because it includes philosophy, purpose, and practice. Accounting education development, therefore, needs to focus on the elements of its curriculum. These elements are the set of accounting courses contained in the curriculum. Meyer and Bushney (2008), Wood (2010), and Markus (2014) argue that the development of an effective curriculum necessitates an understanding of the needs of related stakeholders.

Pinar (2012) and Markus (2014) argue that courses within an effective curriculum should consider philosophical, psychological, and contextual issues, otherwise the curriculum may fail to meet the needs of stakeholders. Markus (2014) classifies stakeholder categories in curriculum development using three levels; the external environment; the specific environment; and, the internal environment. Table 4.1 shows the components of each level. These groups of stakeholders, according to Markus (2014), may have an interest in the curriculum development.

⁹ Mixed blessing stakeholders are those who are supportive of some of the organisation's objectives while unsupportive of others.

Table 4.1 *Categories of Stakeholders in Higher Education Curriculum Development*

Classification of stakeholder categories	Stakeholders
Level One: External environment	Legal, economic, technical, social, cultural, and ethical factors
Level Two: Specific environment	The labour market, relevant ministers, accreditation institutions, and universities
Level Three: Internal environment	Faculty leaders, staff, and current and potential students

Summarised from Markus (2014)

Studies that adopt the stakeholder concept in the accounting education field build on Ramaswamy's argument (1992) which is that business schools are required to meet the needs of different groups of stakeholders such as the community and students. The use of the stakeholder concept is obvious in the field of accounting education (Aleixo, Leal, & Azeiteiro, 2018; Devi, Kumar, & Raju, 2012; Envick & Envick, 2007; Hörisch, Schaltegger, & Freeman, 2020; Petersen, 2008; Sammalisto, Sundström, & Holm, 2015; Stone, Lightbody, & Whit, 2013; Stout & West, 2004; Wally-Dima, 2011). For example, Stout and West (2004) developed a management accounting course that meets the needs of stakeholders by addressing their expectations of management accounting in the planning stage of developing the course. Botes (2005), Wally-Dima (2011), and Devi et al. (2012) believe that accounting courses and programmes should be developed based on the needs of stakeholders to reduce the gap between accounting education and practice.

Stakeholder perspectives and priorities towards the accounting curriculum have been investigated by scholars such as Smith (2006), Crawford (2008), and de Lange (2013). Smith (2006) investigated the differences in the preferred undergraduate accounting curriculum among students, practitioners, and educators. Smith (2006) found that educators, graduates, and public and management accountants preferred specific accounting courses including those on accounting principles, managerial accounting, accounting information systems, intermediate accounting, and auditing. Crawford (2008) surveyed accounting practitioners and educators to understand their preferences towards the adoption of the 150-hour requirement in the accounting profession's curriculum. They found that both educators and practitioners prefer this requirement, although it is time-consuming. De Lange (2013) developed a theoretical

model that explains stakeholder-related mechanisms that affect university adoption of a sustainability curriculum.

The emerging field of sustainability accounting continues to grow and develop in terms of practice and education. Much research has been conducted on the stakeholder perspective on sustainability accounting topics and course design in the accounting curriculum¹⁰ (see for example, Das, Sen, & Pattanayak, 2008; Figueredo & Tsarenko, 2013; Jones et al., 2013; Kagawa, 2007; Sammalisto et al., 2015; Too & Bajracharya, 2015; Yakhou & Dorweiler, 2002).

This doctoral study notes that research studies within the field of accounting education, including sustainability accounting education, use the stakeholder perspective to investigate stakeholders' preferences and priorities. However, these studies neither pay attention to the stakeholders' influence on the development of accounting education nor to understanding the significant roles that these stakeholders can have. Jongbloed, Enders, and Salerno (2008) argue that there is not much literature that investigates how stakeholders interact to develop the accounting curriculum.

It is also noted by this PhD study that some research studies have attempted to develop different theoretical approaches to explain how higher education institutions manage to identify and respond to the demands and expectations of multiple stakeholders. However, this use of different theoretical approaches has created inconsistency in understanding the relationship between higher education institutions and related stakeholders. Alves, Mainardes, and Raposo (2010) suggest that the use of inconsistent theoretical approaches has led to inconsistency in understanding how stakeholders may influence higher education and how these stakeholders are managed. Table 4.2 provides a sample of these research studies within the field of accounting education including sustainability accounting education.

¹⁰ Studies that use the stakeholder perspective to investigate stakeholders' perceptions of sustainability accounting education were discussed in the literature review under the prior studies section (chapter 3, section 3.9).

Table 4.2 *A Sample of Studies that Attempted to Identify Stakeholders and understand their Relationship to Accounting Tertiary Education*

Study	Stakeholders involved	Summary	Theory/approach used
Brown (1999)	Students, government, employers, teaching staff	The study proposed a model that incorporated several stakeholders to understand their needs and expectations. Findings indicated that the relationship between universities and related stakeholders is the survival route for universities.	The study adopted a systemic approach to the relationships between universities and their stakeholders. Stakeholder perspective was used instead of the stakeholder theory in which only stakeholders' needs and expectations were highlighted.
Baldwin (2002)	The local community, employers, senior university management, academics, other HEI members of staff, students	The study proposed and tested a model at a US-based university. Findings indicated that stakeholder relationships with universities contributed towards TQM implementation.	The study examined university stakeholder perceptions following the total quality management (TQM) approach (quality management theories).
Williams (2002)	Students	This research looked at student feedback as a means of improving university quality standards. The study considered approaches to student satisfaction, the means of measuring it, the information generated, and what to do with this output. Findings confirmed the importance of measuring student satisfaction as a relevant university management tool.	The study used the stakeholder perspective but not theory to look at only students' feedback without investigating how they influence/are influenced with relation to their university quality standards. The focus is only on internal stakeholders (only students).
Envick and Envick (2007)	Faculty members, employers	This quantitative study provided a framework for university academics in the US to examine their own programme offerings against important competencies for success in technical sales. The study focused on building a stakeholder-focused business and accounting curriculum. The findings show harmony between the opinions of faculty members and employers towards the importance of specific competencies.	The study used the stakeholder perspective to investigate the stakeholders' preferences/priorities towards specific competencies. Only academics and employers were engaged in the study.
Okunoye, Frolick, and Crable (2008)	Senior HEI management, HEI members of staff, academics, students	The study examined the influence of stakeholders in university enterprise resource planning (ERP). It was an exploratory case study based on stakeholder theory. It looked at the stakeholder influence over universities and ERP implementation at a private teaching establishment and found that successful ERP implementation by a university depends on good university internal stakeholder relationships.	The focus of the study was on theories relating to organisational planning and information technology despite the appearance of the stakeholder theory. External stakeholders were excluded from the study.

Sen, Pattanayak, and Choubey (2010)	Indian industry practitioners	The study surveyed managers in Indian's 100 largest companies to assess their perceptions regarding integrating environmental accounting in the curriculum. The findings indicate that respondents consider environmental accounting as an emerging issue that needs development due to its potential usefulness.	The study used the stakeholder perspective to investigate stakeholders' perceptions, ignoring their role in influencing the integration process of the suggested topics on environmental accounting into the curriculum.
Wally-Dima (2011)	Accounting practitioners, accounting educators	This qualitative study identified the knowledge, subjects, and skills needed for the accounting programme of the University of Botswana. The findings indicate that the traditional accounting topics are important, but that the programme is inadequate due to ignoring important learning activities for the development of accountants. The study highlighted important skills including computer technology, decision making, risk analysis, and communication skills.	The study used the stakeholder perspective to investigate stakeholders' priority regarding what knowledge and skills that needed to be highlighted in the accounting programme. The study does not explain how stakeholders can influence the integration of such knowledge and skills into the programme.
Devi, Kumar, and Raju (2012)	Partners of the big four chartered accounting firms in Fiji, senior academics	This qualitative study explored the existence of an expectation gap in the accounting curriculum that could be covered by the Partnering with Practice (PWP) approach to teaching accounting. The findings show that the PWP approach was perceived as beneficial. Results also show that both stakeholders were willing to collaborate to use this approach in teaching in the future.	The study used the stakeholder perspective to investigate stakeholders' preferences towards the PWP approach. The paper did use stakeholder theory to interpret its findings and to explain how stakeholders should interact to facilitate teaching using the PWP approach.
Figueredo and Tsarenko (2013)	Students	This quantitative study developed a model to explain students' willingness to participate in sustainability programmes. The findings show that the strongest mediator in students' participation is the concern for environmental issues, university educational activities, and university promotion of sustainable initiatives.	The study used behavioural models such as the theory of planned behaviour (TPB) to investigate internal stakeholders' preferences (students' willingness).
de Lange (2013)	A set of stakeholders such as firms, think tanks, wealthy donors defined by elite universities, a set of stakeholders such as local donors, government, local student and future local students defined by non-elite universities	This study developed a theoretical model that examines stakeholder-related mechanisms to investigate how broad and proactive the adoption of sustainability into the accounting curriculum is expected to be. It explicates how stakeholder mechanisms affect the adoption of sustainability into the university curriculum.	The model developed does not focus solely on the stakeholder approach as it combines it with institutional theories. The model also does not explain the ways stakeholders interact to influence the adoption of sustainability accounting education.

Sammalisto et al. (2015)	Faculty and staff, university management staff	This university case study with data collected from open-ended survey questions explores how faculty and staff see their role in sustainability work within a Swedish university. The authors developed a model to illustrate the development of sustainability competence and its institutionalisation.	The study's focus is on stakeholder perception from an institutional perspective. No external stakeholders were involved in the study.
Aleixo et al. (2018)	Leaders, faculty, staff, students, and external stakeholders (society)	This exploratory study aimed to investigate how the main stakeholders of Portuguese Public Higher Education institutions perceive the role of higher education for sustainable development and the barriers, challenges, and obstacles to implementing sustainable initiatives in Portuguese Public Higher Education institutions. Through semistructured interviews, this study explored the perspectives of 20 stakeholders from four Portuguese Public Higher Education institutions.	Although the theoretical framework used is based on the stakeholder theory it does not explain how stakeholders interact to influence the role of universities in sustainable development.
Maali and Al-Attar (2020)	Academics and professionals	This mixed method study examined whether the current accounting curriculum in Jordan fits the Jordanian market's needs. The findings indicate that there is a significant gap between the courses covered in the curriculum and the skills acquired by students and the market's needs.	Using the stakeholder perspective the study investigated stakeholders' opinions towards the suitability of the current accounting curriculum to meet the market's needs. The study did not focus on the roles of stakeholders in covering the gap between accounting education and the market's needs.

The studies shown in Table 4.2 can be critiqued on various grounds. For instance, although these studies mentioned students, educators, staff, alumni, government, employers, and others as university stakeholders on the basis that they have been used in previous literature on accounting education, understanding the relationship between these stakeholders and universities and how stakeholders and universities react was not investigated because, despite focusing on the term 'stakeholder', these studies did not actually use stakeholder theory. They simply used the stakeholder perspective to identify universities' stakeholders as actors (e.g., educators and students) and to understand their needs and expectations but not their influence. Alves et al. (2010) argue that research studies in accounting education confuse the stakeholder perspective and the theory.

While the studies in Table 4.2 intended to adopt stakeholder theory in their investigations, they actually ended up using theories other than stakeholder theory. These studies used the term

‘stakeholder’ rather than stakeholder theory to develop theoretical approaches that aim to understand the relationship between stakeholders and education providers (universities). For example, as shown in Table 4.2 some of these studies developed their theoretical approaches around relational marketing, organisational theories (theories of system and complexity), quality management theories, organisational planning and information technology, or institutional theory (see, Baldwin (2002), Okunoye, Frolick, and Crable (2008), Figueredo and Tsarenko (2013), and de Lange (2013) in Table 4.2). The theoretical approaches of these studies cannot better explain the influence of stakeholders or the way to respond to their expectations and demands than stakeholder theory itself does because as Ramaswamy (1992), Alves et al. (2010), and Powell and Walsh (2018) argue stakeholder theory in the field of tertiary education aims to identify universities’ different stakeholders and their needs and expectations and to provide educational providers with ways to respond properly to stakeholders.

The studies shown in Table 4.2 also focused more on universities’ internal stakeholders, particularly students, educators, and other university staff members. External stakeholders were only superficially analysed. Alves et al. (2010) argue that the theoretical frameworks of studies that attempt to understand the relationship between universities and their stakeholders lack analysis on external stakeholders in that, for example, a classification ranking stakeholders’ respective level of importance is rarely found.

The theoretical approaches the studies shown in Table 4.2 adopted to understand the relationship between stakeholders and universities indicate that there is a gap in that these theoretical approaches can identify stakeholders and their needs without understanding their role in influencing university and education. Bui, Hoang, Phan, and Yapa (2017) argue that multiple stakeholders play different roles in influencing the development of the accounting curriculum. Bui et al. (2017) believe that the role of stakeholders in developing accounting education and its curriculum are inconclusive, particularly in the context of developing nations (see section 4.5). Bui et al. (2017) argue that each stakeholder may wield greater or lesser influence on the development of the accounting curriculum. To integrate sustainability education into the accounting curriculum of Jordanian universities it is important not only to identify related stakeholders and their needs and expectations (stakeholder perspective), but also to understand how they influence the accounting curriculum and the process of integrating sustainability education into the accounting curriculum. It is also important to focus on Jordan’s internal as well as external stakeholders.

The fundamental aim of this study is to develop a model of sustainability accounting education that not only meets the needs of stakeholders in Jordan, but also clarifies their roles in influencing the process of integrating sustainability into the accounting curriculum (development of curriculum). Mitchell et al. (1997) developed their salient stakeholder theory not only to identify stakeholders and their needs and expectations, but also to explain the importance of each group of stakeholders and their roles in influencing organisations. This doctoral study adopts their salient stakeholder theory as a way to identify and classify the Jordanian salient stakeholders in order to develop an understanding of their roles in influencing the Jordanian accounting curriculum. Accordingly, the study aims to develop a salient stakeholder-driven model of sustainability accounting education that meets the needs of the identified salient stakeholders in Jordan. The next section discusses salient stakeholder theory and its related model.

4.4 The Salient Stakeholder Theory

Mitchell et al. (1997) extended stakeholder theory by developing their salient stakeholder theory to explain the importance of competing stakeholders' claims. Salient stakeholder theory explains and discusses the priority managers (e.g., education providers in the field of education) give to competing stakeholders' claims in their decision-making process¹¹. Stakeholder theory in general aims to identify organisations' stakeholders and their needs and expectations as a group that influences or can be influenced by the organisation (Freeman, 1984). Wood, Mitchell, Agle, and Bryan (2018) suggest that the salient stakeholder theory takes the general stakeholder theory further and explains how important each of the identified stakeholders is and the way managers should prioritise and respond to the needs and expectations of each stakeholder. Mitchell et al. (1997) proposed that classes of stakeholders can be identified according to their possession of three attributes relating to power, legitimacy, and urgency.

Pfeffer (1981) defines power as "A relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not otherwise have done" (p. 3). According to Etzioni (1964), power is exercised on the basis of the type of power resource used and so can be categorised in three ways: 1. coercive power based on the physical resources of force, violence or restraint; 2, utilitarian power based on material and financial resources; and, 3. normative power based on symbolic resources. Mitchell et al. (1997) argue that power

¹¹ Different stakeholders have different claims to be met by managers. These claims accordingly compete for the priority given to them by managers to meet. In other words, managers usually attempt to meet the claims of those stakeholders with high level of salience (Mitchell et al., 1997).

is the use of stakeholders' social relationships and influences to force organisations to address their needs and claims.

Suchman (1995) defines legitimacy as "A generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (p. 574). Mitchell et al. (1997) adopt this definition in the salient stakeholder theory because they believe that stakeholders can possess social legitimacy to make a particular decision if this decision is viewed as acceptable and desirable by the society. Meanwhile, the legitimacy of stakeholders' claims indicates that these claims are desirable within socially constructed norms and values. The legitimacy of such claims means that the society is expected to accept and encourage organisations to respond to them (e.g., the claim is ethical, appropriate, and complies with the traditions, culture, and behaviour of the society). Wood et al. (2018) argue that there is a stereotype that legitimate stakeholders are necessarily powerful and that powerful stakeholders are necessarily legitimate, which is not always true. For example, although stockholders are legitimate, if they are a minority in a closely held company, they will lose their power to control the company. Mitchell et al. (1997) describe the linkage between power and legitimacy stating that:

We accept Weber's (1947) proposal that legitimacy and power are distinct attributes that can combine to create authority (defined by Weber as the legitimate use of power) but that can exist independently as well. An entity may have legitimate standing in society, or it may have a legitimate claim on the firm, but unless it has either power to enforce its will in the relationship or a perception that its claim is urgent, it will not achieve salience for the firm's managers. (p. 866)

Viewing power and legitimacy as independent variables in the relationship between stakeholders and managers does not, however, capture the dynamics of the interactions between stakeholders and managers. Thus, Mitchell et al. (1997) argue that adding the urgency attribute helps move the salient stakeholder model from a static to a dynamic one. The online Merriam-Webster Dictionary defines urgency as "calling for immediate attention" (Merriam-Webster, n.d.). The urgency attribute centres on whether stakeholders' claims require immediate action and attention or not. Powell and Walsh (2018) argue that urgency exists in two situations: 1. when the stakeholder's claim and the relationship between the stakeholder and manager are time-sensitive and 2. when that relationship or claim is critical and important to the stakeholder. Table 4.3 summarises the three attributes of power, legitimacy, and urgency.

Table 4.3 *Key Constructs in the Theory of Stakeholder Identification and Salience*

Construct	Definition	Bases
Power	A relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done	<ul style="list-style-type: none"> • Coercive • Force • Threat
Legitimacy	A generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, definitions	<ul style="list-style-type: none"> • Individual • Organisational • Societal
Urgency	The degree to which stakeholder claims call for immediate attention	<ul style="list-style-type: none"> • Time sensitivity • Criticality

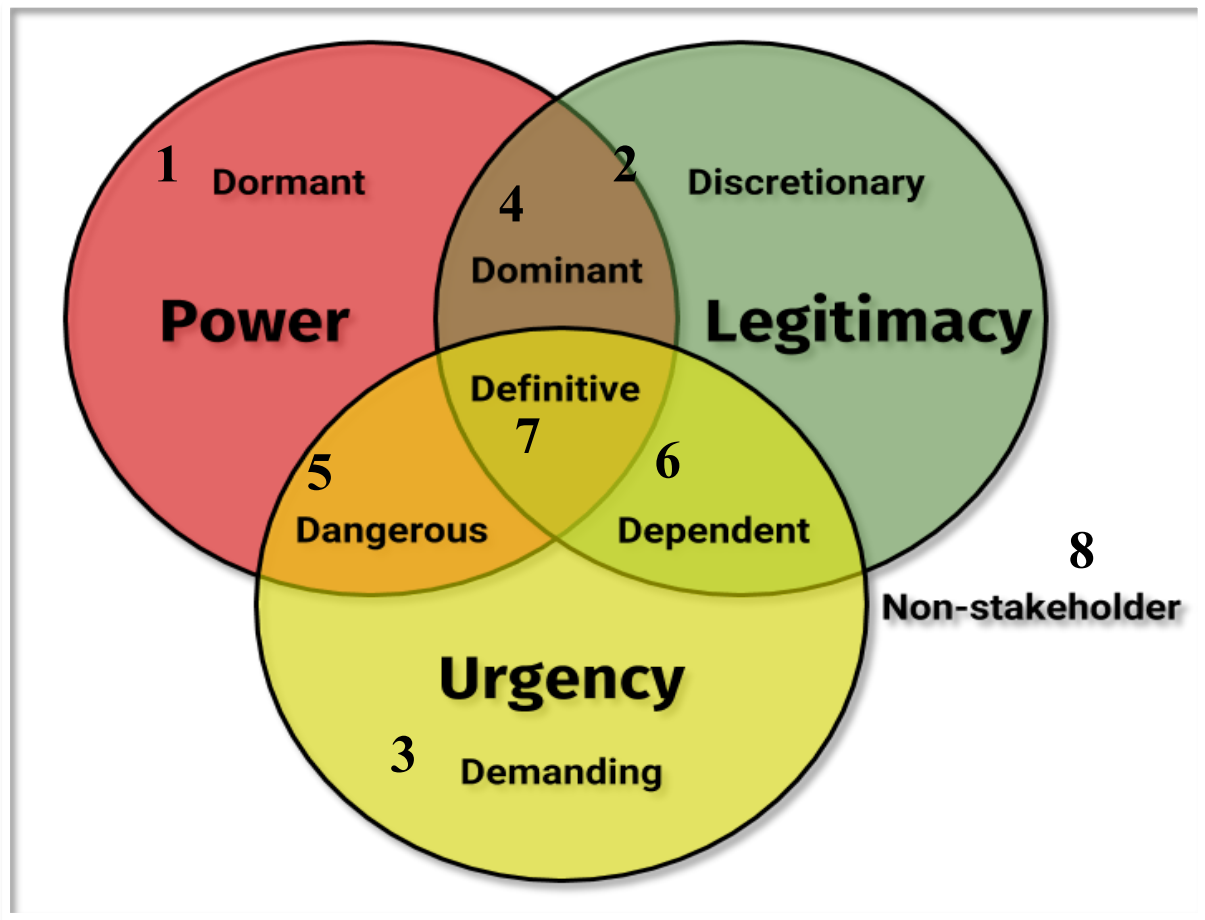
Summarised from Mitchell et al., 1997 and Powell and Walsh, 2018.

This study attempts to identify the Jordanian salient stakeholders who possess power, legitimacy, and/or urgency to influence the integration process of sustainability education into the accounting curriculum. The stakeholder salience model identifies salient stakeholders based on the combination of their power, legitimacy, and urgency. The next section discusses this combination.

4.4.1 The Stakeholder Salience Model

Mitchell et al. (1997) argue that salient stakeholders can be identified on the basis of their possession or attributed possession of power, legitimacy, and urgency. They proposed the stakeholder salience model to describe and explain the various combinations of the three attributes (power, legitimacy, and urgency). In their model, salient stakeholders are classified according to their possession or attributed possession of power, legitimacy, and urgency in relation to eight groups of stakeholders. These groups of stakeholders are dormant, discretionary, demanding, dominant, dependent, dangerous, definitive, and non-stakeholders (Mitchell et al., 1997). Figure 4.1 shows how salient stakeholders are identified according to their power, legitimacy, and urgency.

Figure 4.1 *The Stakeholder Salience Model*



Reproduced from Mitchell et al., 1997.

Figure 4.1 indicates that salient stakeholders can vary according to the number of attributes (power, legitimacy, and urgency) they possess. Bui et al. (2017) suggest that stakeholders play different roles in influencing the accounting curriculum on the basis of stakeholders' identifications. Salient stakeholders' identification can be understood through the characteristics and definition of each class of stakeholder. Table 4.4 (next page) summarises these characteristics and definitions.

Mitchell et al. (1997) gathered salient stakeholders under three categories: latent stakeholders, expectant stakeholders, and definitive stakeholders. Latent stakeholders are characterised by their low salience because they possess just one of the three attributes of power, legitimacy, and urgency (any one). Expectant stakeholders are stakeholders who expect that their needs and expectations are to be met by the organisation. These stakeholders are characterised by their moderate salience because they possess two of the three attributes of power, legitimacy,

and urgency (any two). Definitive stakeholders are those who possess the three attributes together and so they are highly salient.

Table 4.4 *Stakeholders According to the Salient Stakeholder Model*

Number (as in Figure 4.1)	Salient Stakeholder	Definition (Characteristics)	Category	Level of Salience
1	Dormant	These stakeholders possess the <i>power</i> to impose their will, but by not having a <i>legitimate</i> relationship or an <i>urgent</i> claim, their power remains under-utilised.	Latent	Low
2	Discretionary	Discretionary stakeholders possess <i>legitimacy</i> , yet have no <i>power</i> to influence issues and they have no <i>urgent</i> claims. There is no pressure to engage in a relationship with such a stakeholder.	Latent	Low
3	Demanding	Demanding stakeholders are those whose sole stakeholder relationship attribute is <i>urgency</i> . Such stakeholders have <i>urgent</i> claims while possessing neither <i>legitimacy</i> nor <i>power</i> .	Latent	Low
4	Dominant	Dominant stakeholders are <i>powerful</i> and <i>legitimate</i> . Their influence in the relationship is assured since by possessing <i>power</i> and <i>legitimacy</i> they form the dominant coalition.	Expectant	Moderate
5	Dangerous	Dangerous stakeholders possess <i>urgency</i> and <i>power</i> , but not <i>legitimacy</i> . They may, therefore, be coercive or dangerous. The use of coercive <i>power</i> often accompanies socially illegitimate status.	Expectant	Moderate
6	Dependent	Dependent stakeholders are characterised by a lack of <i>power</i> , though they have <i>urgent</i> and <i>legitimate</i> claims. These stakeholders must depend on others to carry out their will. Any influence dependent stakeholders gain is advocated through the values of others.	Expectant	Moderate
7	Definitive	Definitive stakeholders possess <i>power</i> , <i>legitimacy</i> , and <i>urgency</i> . Any stakeholder can become definitive by acquiring the missing attribute(s).	Definitive	High
8	Nonstakeholders	Nonstakeholders possess none of the <i>attributes</i> and, thus, do not have any type of relationship with the issue.	Nonstakeholders	N/A

Summarised from Mitchell et al., 1997.

Mitchell et al. (1997) explain that their model has an advantage because it is a dynamic model that “permits the explicit recognition of situational uniqueness and the recognition that each

attribute [power, legitimacy, and urgency] is a variable, not a steady-state, and can change for any particular[entity]” (p. 868). Because of this model’s advantage, Benneworth and Jongbloed (2010) believe that it can address the national and institutional differences that lead stakeholders to have context-dependent salience. Based on their country and region stakeholders vary in their levels of salience. Powell and Walsh (2018) believe that the stakeholder salience model fits fast-changing contexts.

Different studies have used the stakeholder salience model in different contexts. For example, Page (2002) aimed to determine who the salient stakeholders in public health are and to understand their influence. Howard, Vidgen, and Powell (2003) aimed to understand changes in the automotive industry supply chain. McDaniel and Miskel (2002) adopted the model to understand the influence of a business group on shaping general educational policies. Zyglidopoulos (2002) aimed to understand how salient stakeholders influence social and environmental policies. De Boer, Enders, and Schimank (2007) suggest that the stakeholder salience model enables education providers not only to identify their related salient stakeholders, but also to understand their influence on the organisation. However, there is a lack of research evidence on the use of the stakeholder salience model to identify the salient stakeholders and to understand their influence over accounting curriculum development (by integrating sustainability into it), particularly in developing countries.

This study adopts the stakeholder salience model to identify and understand the salient stakeholders’ influence on the accounting curriculum in the context of a developing country, that is, Jordan. As a developing country, Jordan differs nationally and institutionally from many developed countries. For example, Jordanian beliefs, traditions, culture, and higher education system differ from those of other countries (see the country context chapter) (Alsharari, 2017). Based on the stakeholder salience model, this study attempts to understand the roles of the salient stakeholders in influencing the integration process of sustainability education into the Jordanian accounting curriculum. This understanding will facilitate the development of a salient stakeholder-driven model of sustainability accounting education in Jordan. The next section discusses the roles of salient stakeholders in the development of accounting education in light of the stakeholder salience model.

4.5 Salient Stakeholders' Roles in Influencing Accounting Education Development

To integrate sustainability education into the accounting curriculum it is important to understand how related salient stakeholders play their roles in the integration process. Jongbloed et al. (2008) and Benneworth and Jongbloed (2010) adopted the stakeholder salience model to identify salient stakeholders and explain their roles in influencing the development of higher education. Using Mitchell et al.'s (1997) explanation, they classified related stakeholders into definitive, expectant, and latent stakeholders. They argue that government is often considered as a definitive stakeholder (high level of salience) because it influences higher education development through the three attributes of power, legitimacy, and urgency. Bui et al. (2017) suggest that the government has the authority to issue and reinforce regulations on institutions of higher education, and so it possesses the power attribute. They also noted that the government's actions have legitimacy because they reflect the society's and the country's values. Jongbloed et al. (2008), Benneworth and Jongbloed (2010), and Bui et al. (2017) argue that the government also plays a significant role in reforming and developing higher education to ensure the supply of quality labour for the economy, and so it possesses the urgency attribute.

Because higher education institutions are, in most cases, governed by the government, the changing relationship between universities and the government has become a common theme of reforms in systems of higher education worldwide (Amaral, Jones, & Karseth, 2013; Yapa, 2000). However, Jongbloed et al. (2008) stress that the government as a stakeholder represents many other stakeholders and is not confined to the Ministry of Higher Education. This is the case because universities interact with many other ministries such as those responsible for health care, industry, finance, and the environment for different purposes including the diversity of educational programmes provided.

Jongbloed et al. (2008) argue that the government acts as a definitive stakeholder because it is an important source of funding for all public universities. Alexander (2000) believes that governments have changed from an authoritative oversight to having more autonomy in decision-making, controlling universities and their programmes and budgets. As a result, Gray, Guthrie, and Parker (2002) indicate that universities had to take the risk of being exposed to reduced governmental funds and to rely more on market-generated revenues. Parker (2011) argues that reforms in developing countries aimed to reduce the direct role of governments in providing fundamental services including higher education services in order to achieve

efficiency and effectiveness in services delivery. For example, Carnoy (2000) and Marginson (2011) found that national governments in South-East Asian countries have conventionally been involved in improving economic competitiveness through improving educational quality.

However, South-East Asian countries have launched a range of different reforms that aim to decentralise and increase institutional autonomy (Welch, 2007). These reforms have produced mixed impacts. Welch (2007) argues that South-East Asian institutions of higher education were surprised by the huge competition from the private sector when they attempted to diversify their income sources to have more autonomy. This competition had a negative impact on the quality of teaching because educators moved to work at private universities. Hallinger and Lee (2011) also found a lack of deep penetration of the educational reform in schools of Thailand. Unlike the previous results, accounting-focused studies found that government intervention in accounting education in South Asian countries is important (Seng, 2009; Yapa, 2003). For instance, a study by Yapa (2003) shows that there is a necessity for both political and educational authorities in Singapore, Malaysia, and Indonesia to pay more attention to accounting education and to develop it to be more relevant to the market's needs. Such development is needed to ensure that accounting education can produce accountants able to address the needs of stakeholders and contribute effectively to problem-solving matters.

Accounting educators are also salient stakeholders. Jongbloed et al. (2008) argue that academics should be considered as definitive stakeholders (high level of salience). Alves et al. (2010) believe that academics are definitive stakeholders because their role is essential in higher education institutions. Without academics, universities will not be able to function. Bui et al. (2017) argue that accounting educators reflect an influential force in accounting education because they can exercise autonomy in their teaching practices and so avoid influences from universities' and schools' management. Boyce (2004) argues that academics can comply with the stakeholders' demands or acquiesce to universities' and schools' policies. Parker (2011) also suggests that academics can choose to circumvent universities' and schools' policies, rules, and regulations and adopt their own styles and approaches. They also can exercise discretion since that is allowed according to universities' regulations (Parker, 2001).

However, if both the government and academics act as definitive stakeholders in the development of the accounting curriculum, there could be conflict in planning for the needed development. Avoiding such conflict requires one of the definitive stakeholders (government or educators) to leave its position as a definitive stakeholder and to become an expectant

stakeholder (moderate level of salience). For instance, Bui et al. (2017) argue that educators are losing their independence and the ability to operate and make decisions in the way that they feel is appropriate as a group of experts in the educational process because these educators are defined not as a group of expert educationalists but rather as specialised employees of the corporatised university (as teaching experts). Deem (2004) and Parker (2011) argue that educators' teaching and knowledge delivery are highly geared towards a more instrumental, functionalist, and employment focus, which indicates that educators are losing the power attribute to the university management which, especially in public universities, is governed by the government. As a result, educators have become expectant stakeholders and treated as dependent stakeholders who possess legitimacy and urgency but lack power (Bui et al., 2017).

The university management plays a significant role in this potential conflict and confusion between the government and educators. Bui et al. (2017) argue that university management is supposed to be the key agent and the definitive stakeholder that can respond to the various stakeholders' claims and pressure. The university management has power because of its formal authority to make and implement university policies and regulations; management has legitimacy because its policies are consistent with the strategic objectives and values of the university; and, management possesses urgency in that its policies are necessary as a response to competing stakeholder claims and market forces (Bui et al., 2017).

Bui et al. (2017) suggest that the university management (e.g., the Chancellor) as well as the school's management (e.g., the Dean of Business School at the university) should be able to issue policies and make decisions that affect the curriculum and content of the accounting programme and to apply controls to ensure the quality of teaching and learning. De Boer and Goedegebuure (2009) argue that the school's management's key role is not confined to delivering the policies and decisions of the university management to educators and other employees within the school (top-down managerial model). The school's management should also be able to represent its educators' interests to university management (De Boer & Goedegebuure, 2009).

However, in the case of developing countries the government plays the role of a definitive stakeholder, making university management part of the government body. For example, in Vietnam, the university management role is confined to implementing governmental policies and decisions on education (Ngo, 2014). The university management has little or no authority to exert any serious long-term impact through critical decisions relating to curriculum

framework, admission, budget and staffing, or investment. The Ministry of Higher Education performs all such activities. In Jordan, the government appoints the university management through appointing the university chancellor (Ministry of Higher Education and Scientific Research, 2016b).

Business organisations (employers and employees/practitioners) are also salient stakeholders. Jongbloed et al. (2008) argue that business organisations are, in most cases, expectant stakeholders. They believe that business organisations possess the power and urgency attributes because of the knowledge economy and the need for experts to train graduates at universities to meet the needs of the market, and because of the university's need for growing research funding from external contracts (with business organisations). The combination of power and urgency makes these salient stakeholders dangerous in that they can use coercive power to achieve their will (see Table 4.4). Powell and Walsh (2018) believe that the relationship between business organisations and universities has been often confined to the recruitment of graduates, a relationship which has indirectly influenced the business and accounting curriculum design.

However, due to consistent reports about the dissatisfaction in the quality of university graduates in the workplace (Confederation of British Industry, 2014), business organisations have greatly influenced business and accounting education to increase the quality of graduates in the workplace. However, Powell and Walsh (2018) argue that these business organisations, in most cases, rely on the government to meet their educational needs (e.g., qualified graduates) because businesses do not possess legitimacy in education matters. However, Bui et al. (2017) argue that business organisations can also possess the legitimacy attribute if they participate in higher education institutions' boards of administration and management. This argument moves the position of business organisations up from being expectant stakeholders to being definitive stakeholders (possessing power, legitimacy, and urgency). Thus, the salience level of business organisations is between moderate and high.

The accounting professional body is also a salient stakeholder because its main purpose is to protect the interests of its members. Boyce (2004) argues that accounting education offers technical reductionism and shows little evidence of real change in its content. Accordingly, Jackling and De Lange (2009), Bui and Porter (2010), and Webb and Chaffer (2016) argue that the accounting professional body has been a salient stakeholder because much of the reform in accounting education and its curriculum has been driven by calls from professional pressure

worldwide. These calls for reforms indicate that the accounting professional body possesses the urgency attribute. Bui et al. (2017) believe that universities within developed countries have attempted to be more responsive to the accounting professional body's demands and have made reforms to their accounting programmes, which provides evidence that professional bodies can act as a new player in the education market.

The accounting professional body can also possess legitimacy if it engages in the educational process. For instance, in the UK the accounting professional body offers business and accounting students membership (Powell & Walsh, 2018). The Institute of Chartered Accountants in Australia (ICAA) obtained approval to award a graduate diploma to all ICAA candidates who complete the CA programme (Howieson, 2003). Such examples indicate that the professional body is gaining respect and acceptance from society and, therefore, the legitimacy attribute. In this case, the professional body moves from being a latent stakeholder (low level of salience) possessing only one attribute (urgency) to being an expectant stakeholder (moderate level of salience) with two attributes (urgency and legitimacy). This ability to gain added salience also means that the professional body can move from being a demanding stakeholder with urgent claims to being a dependent stakeholder with urgent and legitimate claims (see Table 4.4).

However, as Yapa (2003) and Seng (2009) indicate the situation is different in developing countries. For example, the presence of professional bodies in the accounting education of South-East Asian countries has been marginal and ignored. This situation has led governments to interfere and to take the responsibility for developing accounting education to ensure that it prepares graduates to meet the needs of the profession and market. Pham (2012) argues that in Vietnam the role of the accounting professional body in influencing the accounting curriculum is debatable and unclear.

Students are the core of the educational process. Powell and Walsh (2018) suggest that students should be more demanding and that universities should deliver what students demand. In the UK, the White Paper 'Students at the Heart of the System' states that "We will empower prospective students by ensuring much better information on different courses. We will deliver a new focus on student charters, student feedback and graduate outcomes" (Department for Business Innovation and Skills, 2011, p. 2).

There is a consistent emphasis on the importance of students as a key stakeholder but not as salient stakeholders because some studies do not believe that students have influence even

though their perceptions are important to study as they are the accounting education clients. Different business and accounting-focused studies have identified students as a key stakeholder and investigated their perceptions and opinions towards the business and accounting education and the related curricula. For example, Kagawa (2007) and Das et al. (2008) investigated accounting students' perceptions of the integration of sustainability education into the accounting curriculum. Kagawa (2007) found that the majority of participating students viewed sustainability education positively. Students strongly associate the sustainability concept more with environmental rather than with economic and social aspects. Das et al. (2008) found that there is a significant difference in the students' perception level as regards integrating environmental reporting practices into their management accounting course. Robinson (2012), Wachholz, Artz, and Chene (2014), and Zeegers and Clark (2014) believe that students are one of the key stakeholders in the development of a more sustainable society. Figueredo and Tsarenko (2013) argue that students' interests in sustainability issues influence their participation in sustainability programmes. They also believe that universities can facilitate a student's participation in sustainability activities through sustainability initiatives and courses.

However, concerning the reality of students' relationship to their universities, Powell and Walsh (2018) argue that students have moved from a relatively "paternalistic" relationship with their universities to more of a consumer role. Powell and Walsh (2018) describe the relationship between students and universities as a mutual-interest relationship in which universities are seen as benefits to the future of students, while students are seen by universities as an investment. Powell and Walsh (2018) argue that it is unclear how responsive education providers are to the students' needs and expectations around curriculum design and delivery, and so the position of students in the salience stakeholder model has been fluctuating from being that of a discretionary stakeholder to a demanding stakeholder.

Powell and Walsh (2018) found that before the pressures of decreasing economic resources and increasing student numbers in the UK (the 1990s up to 2012), the participation of business school students was seen as marginally legitimate in that they were recognised as part of the university system. However, these students had little or no impact on the curriculum structure because they had no power to make a change. Their claims were also not considered as urgent. Thus, these students were perceived as discretionary stakeholders. Powell and Walsh (2018) also found that, while in the period between 2012 and 2016 students were not awarded any legitimacy to influence the curriculum structure, their claims were perceived as urgent (the claim being they have limited time to experience university education). Thus, students moved

from being discretionary stakeholders to be demanding stakeholders. The reason behind this change, according to Powell and Walsh (2018), was the government's commitment to creating a market in the higher education sector as government saw competition amongst universities to attract demanding students by meeting their urgent claims as a way to achieve increases in a better quality of education. Bui et al. (2017) argue that competition among universities helps increase the students' level of salience because this competition acts as a significant external pressure on the approaches universities take to attract and retain students, including the way that curriculum is designed and managed. They explain that universities' actions provide higher education institutions with the urgency to shape and manage their accounting curriculum so that they remain attractive to potential students.

According to this discussion of the students' role in curriculum development, students can be considered as latent stakeholders (low level of salience, possessing only one of the three attributes of power, legitimacy or urgency), despite the importance of their opinions and perceptions at the core of the educational process. Studies that investigated the position of students as a salient stakeholder in influencing the development of the accounting curriculum are rare and perhaps not found in developing countries, particularly in the Middle East. Most studies in this field in developing countries treated students only as a stakeholder whose perceptions and opinions, in general, are important to consider but without understanding students' role/influence (in developing countries). In light of the stakeholder salience model and the role of salient stakeholders in accounting education development, the next section discusses how salient stakeholders can be involved in accounting education development.

4.6 Salient Stakeholders Involvement in Accounting Education Development

The salient stakeholder theory along with its related model facilitates understanding in terms of the identification and classification of university stakeholders. According to this classification, different stakeholders have different roles to play in the development and delivery of the accounting curriculum. The theory and model also explain each salient stakeholder's role in and influence on the development of accounting curriculum through the stakeholders' practices of power, legitimacy, and urgency.

De Boer et al. (2007) explain the involvement of salient stakeholders in influencing university education through their power, legitimacy, and urgency. They suggest five dimensions as a means to understand how salient stakeholders can be involved in university education development, in other words, how stakeholders play out their previously described roles in

curriculum development. As Table 4.5 shows, these dimensions are: state regulation, managerial-self-governance, stakeholder guidance, market competition, and academic self-governance. A salient stakeholder's exercise of power, legitimacy, and urgency used to influence university education development can be seen in one of these dimensions.

Table 4.5 *Dimensions of Salient Stakeholder Influences on University Education Development*

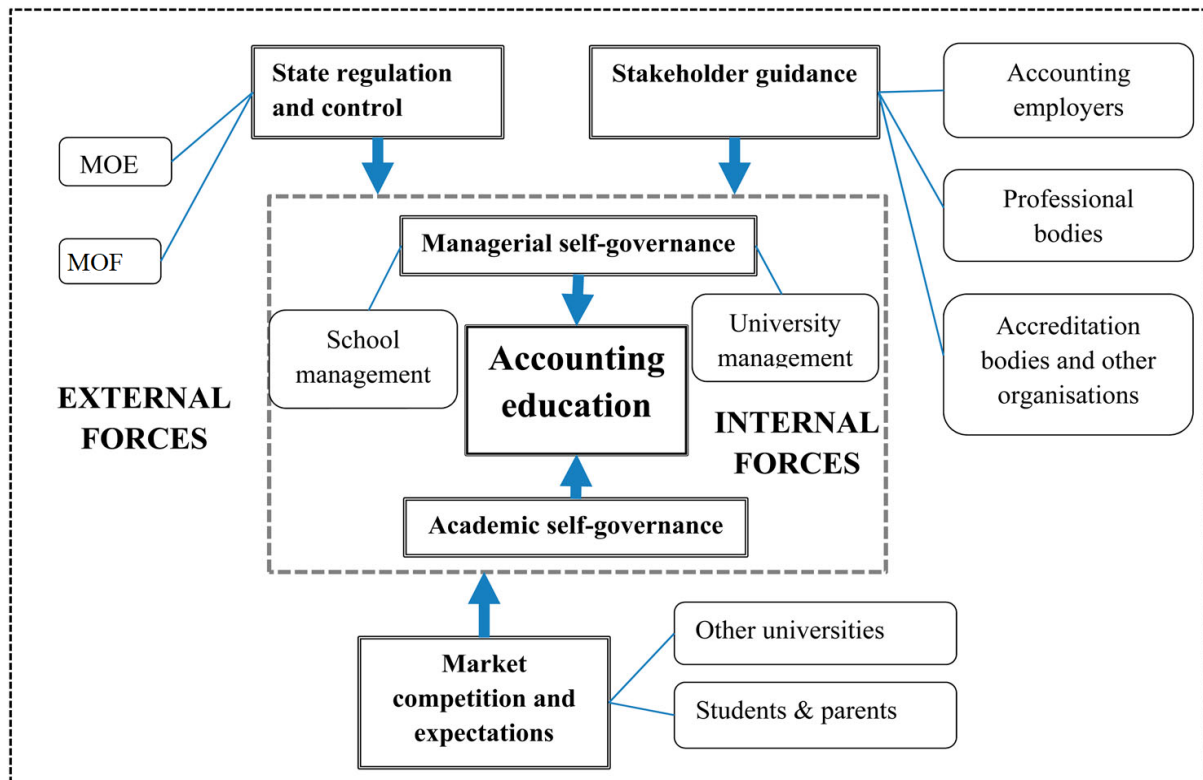
Dimension	Refers to
State regulation	The State's regulation and directives that regulate the university's behaviours
Managerial self-governance	Hierarchical authority within a university
Stakeholder guidance	Influences of external stakeholders through goal setting and advice
Market competition	The competition among and within universities for resources through 'quasi-markets', including students, funding, money and prestige
Academic self-governance	Academic authority in determining the university's goals and supervising operation as well as outcomes

Source: Summarised from De Boer et al., 2007

Thus, the five dimensions in Table 4.5 can clarify not only the direct influence of salient stakeholders over the university's accounting education, but also the influence and involvement of one salient stakeholder over another salient stakeholder. To explain how the five dimensions in Table 4.5 influence accounting education in a university, Bui et al. (2017) further classified them into internal and external forces. Internal forces are the managerial self-governance and the academic self-governance, whereas the external forces are the State regulation, the stakeholder guidance, and the market competition. Figure 4.2 below shows how these dimensions influence the development of accounting education in a university, according to Bui et al. (2017).

Bui et al.'s (2017) theoretical framework (see Figure 4.2) identifies salient stakeholders and explains their influence over university accounting education. Their framework explains the role played by different salient stakeholders in influencing the development of accounting education. In light of the discussion above, the next section first develops the theoretical framework that determines and classifies the Jordanian salient stakeholders and then examines their roles in influencing the integration process of sustainability education into the accounting curriculum.

Figure 4.2 Stakeholder Influence and University Governance of Accounting Education



Adopted from Bui et al., 2017, p. 273.

4.7 The Theoretical Framework Developed for this Study

To integrate sustainability education into the accounting curriculum in Jordan it is important to first, determine and classify the related Jordanian salient stakeholders and second, to understand their roles in influencing the process of integrating sustainability into the accounting curriculum. Alsharari (2017) believes that Jordanian people share many values, common deeds, and similar ways of thinking and visions with stakeholders from other countries in the Middle East. Thus, understanding the Jordanian higher education institutions' salient stakeholders may provide an understanding of the Middle East tertiary education more generally. Alsharari (2017) also believes that Jordan, due to its growing economy, is an ideal example of not only a Middle Eastern country, but also of other developing countries. The salient stakeholders in Jordan can be identified as the government, university management and educators, business organisations, professional accounting bodies, and students.

The government of Jordan plays a key role in the tertiary education system. The Ministry of Higher Education which sets the aims of higher education and along with its educational policies governs tertiary education in Jordan (Ministry of Higher Education and Scientific

Research, 2016b). The Ministry appoints the Higher Education Accreditation Commission (HEAC) to ensure that universities achieve the Ministry's aims and commit to its policies. The HEAC is also responsible for a university's quality control. The HEAC sets and monitors the quality of each academic discipline (e.g., the accounting curriculum for bachelor's accounting students) in both public and private universities. Hussein (2014) believes that the HEAC is given the authority by the Ministry of Higher Education to grant or withdraw accreditation from universities. Thus, the government of Jordan is considered in this study as the definitive salient stakeholder which through its governmental regulations and educational policies can practise control over the university system, including the development of the accounting curriculum.

The university management in Jordan might be considered as a salient stakeholder because the Ministry of Higher Education and Scientific Research (2016b) claims that Jordanian universities were given autonomy to control administrative and financial matters. However, this study does not recognise university management as a separate salient stakeholder for three reasons. First, the autonomy given to the university management in Jordan relates only to administrative and financial matters (not academic matters which are governed by the HEAC). Consequently, university management is not a salient stakeholder in terms of the process of integrating sustainability into the accounting curriculum. Second, the individuals who occupy the highest managerial positions, where decisions are made, in the university (e.g., the Chancellor) are appointed directly by the government (Ministry of Higher Education and Scientific Research, 2016b). This system makes the university management part of the government's body as argued above by (Ngo, 2014). Third, it is common knowledge in Jordan that educators (in addition to their academic job positions) occupy these high managerial positions.

Accounting educators in Jordan are considered as salient stakeholders for the reasons already discussed in section 4.5. In Jordan, or any other country, educators are the centre of the educational process. Their presence is fundamental; without them universities would not be able to function. Accounting educators are also academic specialists who know how to develop the accounting curriculum and education. In Jordan, little, if any, is known about accounting educators as salient stakeholders. According to the European Commission (2012), the process of curriculum development in Jordan goes through three steps where educators and university management are seemingly part of the process. First, the educators within a specific academic

discipline (e.g., the accounting discipline) prepare the curriculum. Second, educators discuss the curriculum with the faculty council. Third, the Dean's Council approves it.

Although this process shows that both educators and the university management have a key role to play, it is essential to know whether the Dean's Council would approve the proposed if it did not comply with the HEAC's requirements and conditions (European Commission, 2012). The possibility that a curriculum could be rejected implies that educators have very minimal influence on curriculum development. Maali and Al-Attar (2020) believe that the HEAC sets the fields of knowledge that each curriculum must contain in advance. Accordingly, if a specific learning course does not comply with these previously determined fields of knowledge, that course cannot be included in the curriculum. Maali and Al-Attar (2020) argue that accounting educators need the freedom to be able to develop the accounting curriculum in Jordan. In other words, Jordanian accounting educators should be considered as a salient stakeholder and be given autonomy.

The position of accounting students as a salient stakeholder is debatable, and students can be considered as salient stakeholders if there is competition between universities (see section 4.5). In Jordan, competition between universities does not exist. Due to the culture, traditions, and financial matters Jordanian students, in general, prefer to enrol at the closest university to their home. This is perhaps one reason why Jordanian universities are spread across the country (29 universities in addition to the community colleges) (Maali & Al-Attar, 2020). The tuition fees for all Jordan's universities fall roughly within the same range (private universities are a bit more expensive than the public ones). The quality of education and infrastructure is similar in all the universities because they have to comply with the conditions and policies set by the Ministry of Higher Education and the HEAC (Maali & Al-Attar, 2020).

Nevertheless, different studies have considered students as a key stakeholder (see section 4.5). Bui et al. (2017) believe that student numbers can influence university actions through their urgent claims. The number of business and accounting students enrolled in universities in 2017 alone was 11,023 (Ministry of Higher Education and Scientific Research, 2018). Thus, this study considers students as a salient stakeholder whose influence can be exerted on the development of the curriculum through internal guidance. Accounting students can, for example, provide their educators with suggestions and feedback about specific contemporary accounting topics to be included in an accounting course or even give their urgent opinions about the curriculum design.

Business organisations and the accounting professional body are considered by different studies as salient stakeholders (see section 4.5). In Jordan, Maali and Al-Attar (2020) argue that there is a gap between the Jordanian accounting education and the needs of both businesses and the profession. Maali and Al-Attar (2020) suggest that the reason for the gap between accounting education and practice is due to the accounting curriculum's being set according to the HEAC's requirements. Maali and Al-Attar (2020) argue that the Jordanian Association for Certified Public Accountants (JACPA) does not play any role in developing the accounting curriculum. Maali and Al-Attar (2020) believe that the Jordan's accounting professional body should guide the accounting education.

Accordingly, both business organisations and the accounting professional body in Jordan have at least urgent claims to be provided with qualified accounting graduates. Such urgent claims make the business organisations and the accounting professional body salient stakeholders in the context of Jordan. For that reason, this study considers both the business organisations and the accounting professional body in Jordan as salient stakeholders. Their influence on the development of accounting education can be through their external guidance whereby they guide the development of the accounting curriculum by providing universities, for example, with specific contemporary accounting issues to be included in the curriculum.

From the above discussion, it is concluded that the Jordanian salient stakeholders which should be able to influence the development of accounting curriculum are the government (Ministry of Higher Education and the HEAC), the accounting educators (in all business schools of Jordan), the accounting students (in all business schools of Jordan), the business organisations (industrial organisations operating within Jordan), and the professional accounting body (Jordan Association of Certified Public Accountants (JACPA) and Jordan Association of Management Accountants (JAMA)). This study further classifies these Jordanian salient stakeholders into internal and external stakeholders; internal stakeholders are those who may influence the curriculum from inside the university, whereas external stakeholders are those who may influence it from outside the university. The Jordanian salient stakeholders' practices of power, legitimacy, and urgency are viewed in terms of their level of involvement in the process of integrating sustainability education into the accounting curriculum. This level of involvement is measured by the level of governmental control, accounting educators' autonomy, accounting students' internal guidance, and business organisations' and the accounting professional body's external guidance. Table 4.6 summarises the elements which make up the framework that indicates the Jordanian salient stakeholders' potential influence.

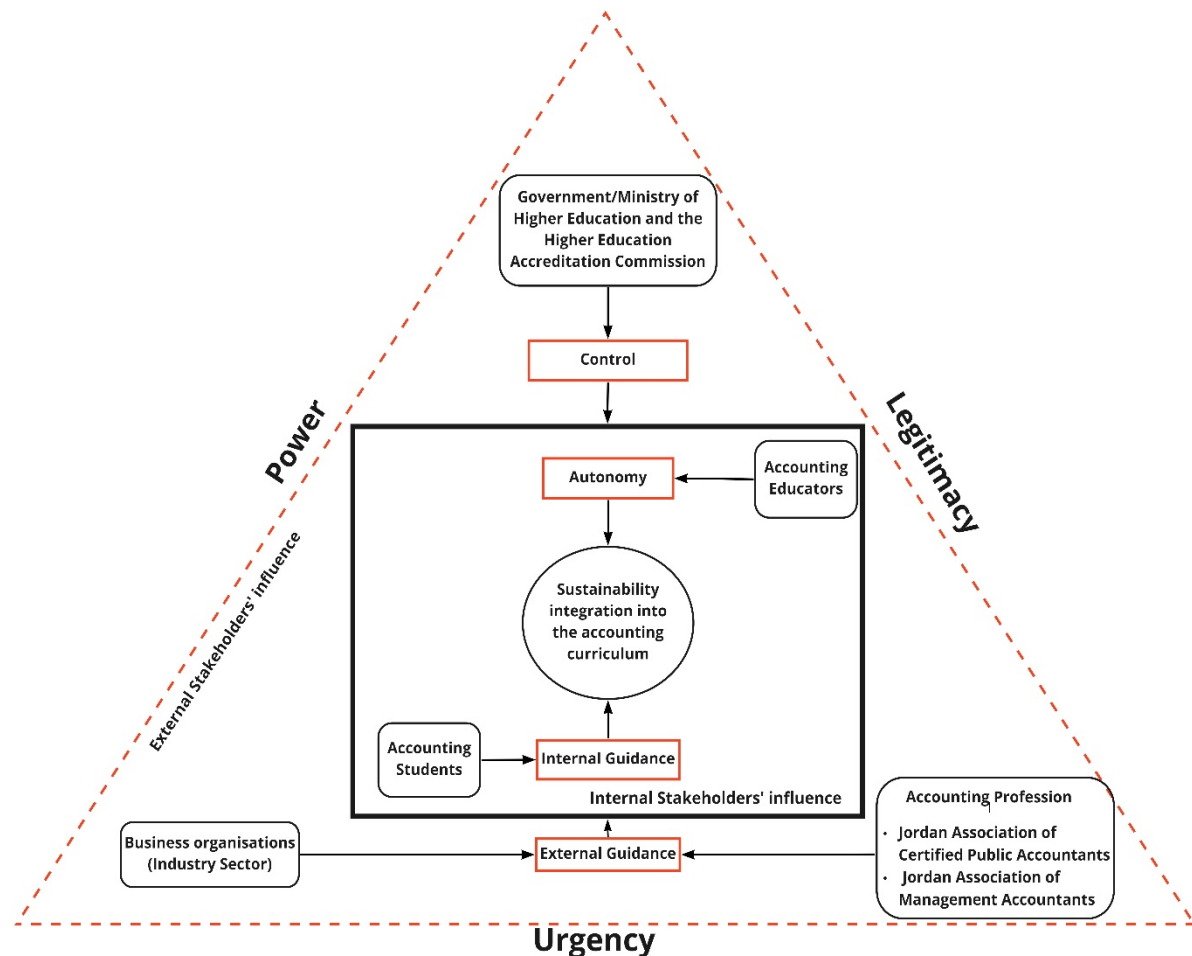
Table 4.6 *Jordanian Salient Stakeholders' Potential Influence over the Accounting Curriculum Development*

Classification	Salient stakeholder	Stakeholders' involvement	Refers to
Internal stakeholders	Accounting educators (in all Jordan's business schools)	Autonomy	Accounting educators' level of involvement in making their own decisions around developing the accounting curriculum by integrating sustainability education into it
	Accounting students (in all business schools of Jordan)	Internal guidance	Students' level of involvement in guiding the development of the accounting curriculum by suggesting and demanding sustainability accounting education (e.g., through suggestions and feedback on the current curriculum)
External stakeholders	The government/the Ministry of Higher Education and the HEAC	Control	The level of the governmental involvement in controlling the accounting education through governmental regulations and educational policies (e.g., the fields of knowledge specified for the accounting education)
	Business organisations (the industrial sector of Jordan)	External guidance	Business organisations' level of involvement in guiding the development of the accounting curriculum by discussing, with the university, improvements to corporate sustainability practices through accounting education (e.g., participating in setting the curriculum/course objectives)
	Accounting professional body: <ul style="list-style-type: none"> ▪ Jordan Association of Certified Public Accountants ▪ Jordan Association of Management Accountants 	External guidance	Accounting professional body's level of involvement in guiding the development of the accounting curriculum by discussing, with the university, improvements to corporate sustainability practices through accounting education (e.g., participating in setting the curriculum/course objectives).

As noted, Table 4.6 identifies the Jordanian salient stakeholders and classifies them into internal and external stakeholders. It also explains the Jordanian salient stakeholder's potential role in influencing the process of integrating sustainability into the development of the accounting curriculum. However, the extent to which these salient stakeholders are involved in the process of curriculum development is as yet unknown, and so this study investigated this issue using the theoretical framework developed for this purpose. The framework in Figure 4.3

shows the ways in which Jordanian salient stakeholders can influence the development of the accounting curriculum by integrating sustainability into it. This study examined the relationships between the Jordanian salient stakeholders and curriculum development presented in Figure 4.3 in order to understand the challenges of implementing sustainability education in the accounting curriculum.

Figure 4.3 *Theoretical Framework: Jordanian Salient Stakeholders' Potential Influence over Sustainability Integration into the Accounting Curriculum*



Source: Author

Figure 4.3 indicates that the combination of the three attributes of power, legitimacy, and urgency identifies the Jordanian salient stakeholders. These salient stakeholders possess at least one of these attributes that supports their level of involvement through control (in case of the government), autonomy (in case of the educators), internal guidance (in case of the students), and external guidance (in case of the business organisations and professional body) that enables them to integrate sustainability into the accounting curriculum. Accordingly, during the data analysis stage, the researcher was mindful of the three characteristics of salience (power,

legitimacy, and urgency) as well as the salient stakeholder's level of involvement (control, autonomy, internal and external guidance) in influencing the development of the accounting curriculum by integrating sustainability into it. Because the study has identified the salient stakeholders in Jordan, it aimed to understand their needs and expectations regarding sustainability education in the accounting curriculum, along with understanding their influence over the integration of sustainability into the curriculum. This salient stakeholder participation in developing the accounting curriculum is important because, according to Jita (2006), the process of stakeholder participation in the development of higher education curriculum is limited and poorly conceptualised.

Thus, the purpose of understanding the salient stakeholders' needs and expectations is to develop a salient stakeholder-driven model of sustainability accounting education in Jordan that enhances stakeholders' participation and meets their needs and expectations for sustainability accounting education. Jordanian salient stakeholders' influences over the accounting curriculum, along with their needs and expectations for sustainability accounting education, are understood in this study through investigating the importance of sustainability accounting to these salient stakeholders and the challenges and benefits of integrating sustainability education into the accounting curriculum of Jordanian universities. The next section summarises the chapter.

4.8 Summary

This chapter discussed the theoretical framework developed for this study. The study adopted salient stakeholder theory and its related model for two reasons: first, to identify and classify the Jordanian salient stakeholders concerning the integration of sustainability into the accounting curriculum and second, to understand the identified Jordanian salient stakeholders' role in influencing the process for integrating sustainability into the accounting curriculum. This framework will later facilitate understanding of the needs and expectations of Jordanian salient stakeholders towards integrating sustainability into the accounting curriculum. It also will facilitate the implementation of this integration through a salient stakeholder-driven model of sustainability accounting education in Jordan, as it is the aim of the study to develop this model. Thus, in light of salient stakeholder theory and its related model, this chapter developed the theoretical framework that was required to examine the Jordanian salient stakeholders and to understand their influence on the development of the accounting curriculum through integrating sustainability into it.

Chapter 5

Research Methodology and Methods

5.1 Introduction

This chapter discusses the research methodology and methods adopted to answer the research questions. The first part of this chapter explains the research methodology, second discusses the research method used for this study, while the research method section explains the sample, data collection, and analysis of each phase of the study. This study consisted of two phases: the quantitative phase (questionnaire survey) and the qualitative phase (semistructured interviews). The chapter concludes with a summary.

5.2 Research Methodology

According to Creswell (2013), research approaches are “the plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation” (p. 3) designed to answer the research question. In any research, it is necessary and important to explain the research methodology because it is a key element of the research process. Laughlin (1995) argues that methodological choices are inherent in the research process. Researchers should clearly state their methodological choices to facilitate understanding of their assumptions and prejudices (Laughlin, 1995). In social science, research methodology relates to the philosophical assumptions which determine the researcher’s decision of what research approach to adopt to investigate a particular social phenomenon (Neuman, 2010; Tashakkori & Teddlie, 1998). These assumptions are categorised into two types: ontological and epistemological assumptions (Crotty, 1998; House, 1994; Tashakkori & Teddlie, 1998). Different factors can determine the philosophical assumptions of the researcher. These factors include, for example, the nature of the research issue, the personal experience of the researcher, and the participants included in the study (Kumar, 2011).

Research methodology relies heavily on the interconnection of worldview assumptions and its related research design as well as the specific research method that translates the research approach into practice (Welman, Kruger, & Mitchell, 2005). Guba (1990) identifies the worldview term as “a basic set of beliefs that guide action” (p. 17). However, others have called them paradigms (Lincoln, Lynham, & Guba, 2011; Mertens, 2014). Paradigms help researchers

understand the reality, build knowledge, and gather information about the world (Tashakkori & Teddlie, 1998; Tracy, 2012). Chua (1986) argues that accounting as a social science can be located within the interpretivism paradigm and understood through individuals' viewpoints. In the social sciences, where accounting belongs, two paradigms are popular. These are the positivism (quantitative) paradigm as argued by Ayer (1959) and Maxwell and Delaney (2004) and the interpretivism (qualitative) paradigm as argued by Chua (1986) and Guba and Lincoln (1989). The integration of these paradigms results in the pragmatism paradigm (mixed method) which has become a popular paradigm in recent years (Bryman, 2015). This study employed the pragmatism paradigm and followed a mixed method approach. The next section explains why and how the mixed method approach was adopted.

5.3 Selection of Methodological Approach and Paradigm

The selection of a suitable methodological approach depends on understanding the differences between the two main paradigms: positivism and interpretivism. The distinction between positivism and interpretivism lies in the differences in their philosophical assumptions i.e., their epistemological and ontological assumptions (House, 1994; Laughlin, 1995; Tashakkori & Teddlie, 1998). The epistemological assumptions relating to the positivistic paradigm indicate that researchers are independent of the issue under investigation, and so the knower and known are separable. On the other hand, the ontological assumptions indicate that a unique reality exists but needs to be discovered by the researcher. Because researchers, in that case, have no ideas about the thing to be discovered, they are unable to examine it. Thus, positivist researchers in most cases have to set hypotheses based on pertinent theories and empirical studies. In positivism, researchers use quantitative data to measure variables typically on instruments, and numerical data is analysed using different statistical procedures (Collis & Hussey, 2013; Tashakkori & Teddlie, 1998). Because positivists use quantitative data, some researchers use the terms 'positivistic' and 'quantitative' interchangeably (Bryman, 2015; Collis & Hussey, 2009).

Creswell (2013) notes that the positivistic/quantitative paradigm/approach is for "testing objective theories by examining the relationship among variables" (p. 4). In this regard, researchers have assumptions about the context. They test theories deductively in an established simulated location, build in protections against bias, and control for different explanations (Collis & Hussey, 2013; Tashakkori & Teddlie, 1998). Researchers also use statistical analysis to analyse quantitative data from a relatively large sample to generate

quantifiable results that are highly reliable although they have little validity (Collis & Hussey, 2009). These results and findings are also applicable to replication and generalisation to the population. Although this PhD study did not test specific hypotheses directly, it collected quantitative data and used statistical analysis to obtain statistical results.

In the interpretivism paradigm some scholars tend to use the term interpretive approach interchangeably with qualitative approach as “an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem” (Creswell, 2013, p. 4). Chua (1986) explains the aims of interpretivism:

Interpretive knowledge reveals to people what they and others are doing when they act and speak as they do...the aim of the interpretive scientist is to enrich people’s understanding of the meanings of their actions, thus increasing the possibility of mutual communication and influence. (p. 615)

Under the interpretivism paradigm, researchers ask questions, collect data typically in the participant’s setting and from a relatively small sample, and analyse this data inductively building from specific to general themes to generate a theory (Saunders, 2011; Tashakkori & Teddlie, 1998). In addition, researchers interpret the data’s meaning using a qualitative approach. The findings in qualitative studies are subjective, and they tend to be highly valid but with little reliability (Collis & Hussey, 2009).

The above discussion indicates that both qualitative (interpretivism paradigm) and quantitative (positivistic paradigm) approaches are viewed as strict or distinct categories. They are incompatible in terms of their logic (deductive/inductive). Nevertheless, Benz and Newman (1998) believe that both paradigms represent different ends on a continuum. They tend to be more complementary than competitive (Migiro & Magangi, 2011). Therefore, a study may tend to be more qualitative than quantitative and vice versa. Denzin (2017) also argues that the interpretivism and positivistic paradigms should not be viewed as incompatible. The two paradigms can be mixed and linked with research methods in a triangular model. As interpretivism and positivism represent different ends on a continuum, this mixed methods research approach sits in the middle of this continuum because the mixed method approach incorporates elements of both interpretivism and positivism.

According to Tashakkori and Teddlie (1998) and Morse and Janice (2016), a mixed method approach includes the application of both quantitative and qualitative strategies within a single research project. Creswell (2013) defines the mixed method research approach as: “An

approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks” (p. 4).

The mixed method research approach is also known as the pragmatic paradigm, and it is that approach which is adopted in this study. The mixed methods approach is adopted by pragmatists to conduct a study. Pragmatic researchers are free to select one particular paradigm or mixture of paradigms (Crotty, 1998; Tashakkori & Teddlie, 1998). According to pragmatism, the focus of researchers is on the research problem and question, rather than on the methods used (Tashakkori & Teddlie, 1998). According to Patton (1990), researchers can use all available approaches to understand the research problem. This paradigm, therefore, is considered as a philosophical underpinning for mixed methods research. The importance of pragmatism is that it focuses on research problems in social sciences and then uses qualitative and/or quantitative approaches to obtain knowledge about the research problem (Morgan, 2007; Tashakkori & Teddlie, 2010).

The implication of pragmatism is that researchers are free to select the methods, techniques, and procedures that will help them to achieve the research objectives and questions of their study (Creswell, 2013). The advocates of pragmatism do not perceive the world as an absolute unity. Similarly, researchers who adopt mixed methods consider different approaches to collecting and analysing data and so do not adopt a single approach (Denzin, 2017; Tashakkori & Teddlie, 1998). Pragmatism defines truth as “what works at the time” and so pragmatism advocates do not rely on duality of reality¹² (Cherryholmes, 1992). Here, the mixed methods approach was used to attain a complete and better understanding of this study’s research problem. Table 5.1 (next page) shows the position of pragmatism compared to positivism and interpretivism.

In most cases mixed method research involves the use of both quantitative and/or qualitative methods (Morse & Niehaus, 2009). For example, a mixed method researcher can use a qualitative method to describe some experience along with an additional quantitative strategy to measure some dimensions of that same experience (Morse & Niehaus, 2009). This strategy improves the qualitative description of the research issue under investigation. Alternatively, researchers may use a quantitative method to measure some experience and an additional

¹² An individual stands upon the threshold of two realities. One is held deep within his/her mind, the other is as a result of experiences of the surrounding world.

qualitative strategy to allow for a description of some details of the phenomenon that the researcher cannot measure and so enhance the narrative description of the phenomenon (Morse & Niehaus, 2009). Following the pragmatic paradigm, this study adopted the mixed methods approach. The next section discusses the mixed methods design for this study.

Table 5.1 *Comparison of Three Important Paradigms in Social Science*

Paradigm	Positivism	Interpretivism	Pragmatism
Methods	Quantitative	Qualitative	Quantitative + Qualitative
Logic	Deductive: Testing a theory	Inductive: Generating a theory	Deductive + Inductive
Epistemology	An objective point of view. In natural science: Knower and Known are independent; that means the researcher is independent of the issue under investigation.	The subjective point of view. Interpretivism: the Knower and Known are inseparable, and so the researcher is involved in the issue under investigation.	Both subjective and objective points of view
Ontology	Objectivism: Knowledge is based on an objective point of view. Simple realism. There is an objective, external reality upon which inquiry can agree (produced by social facts).	Constructionism: Knowledge is based on a subjective point of view. Knowledge is gained from people via their interpretation of the social world. This produces multiple realities. Relativism: Knowledge, truth, and morality are based on culture, society or historical context.	Accept external reality. Choose explanations that best produce desired outcomes
Casual linkages	Real causes simultaneous with effects	All entities simultaneously shaping each other. It is impossible to distinguish causes from effects.	There may be causal relationships, but it is impossible to pin them down.

Summarised from Tashakkori & Teddlie (1998), Collis & Hussey (2009), and Bryman (2015)

5.4 Mixed Method Design

The mixed methods approach can be categorised in terms of the priority decision and the sequence decision. According to Tashakkori and Teddlie (1998) and Bryman (2015), the priority decision refers to the researcher's decision regarding the principal tool that will be used for data gathering. That decision is based on the nature of the research; it can be either qualitative or quantitative research or can rely on both methods equally and give them equal weight when collecting data. However, the sequence decision category relates to the initial decision to adopt either a qualitative or quantitative study (Bryman, 2015). Thus, researchers need to think and make a decision on the principal part of their mixed methods study. They need to decide if their research will take a qualitative or a quantitative stance and when using mixed methods which part should be placed first (Bryman, 2015; Tashakkori & Teddlie, 1998).

Mixed methods design has three basic models: convergent parallel mixed methods, exploratory sequential mixed methods, and explanatory sequential mixed methods (Creswell, 2013; Migiro & Magangi, 2011). A researcher can use convergent parallel mixed methods if the purpose is to converge or merge qualitative and quantitative data to provide a comprehensive analysis of the research issue (Migiro & Magangi, 2011). Therefore, those who adopt this design collect both qualitative and quantitative data at the same time and then merge the information in the interpretation of the overall results.

However, in the exploratory sequential mixed method researchers begin with a qualitative research phase where researchers analyse qualitative data and build their qualitative findings into a second quantitative phase (Creswell, 2013). In this case, the qualitative phase's purpose may be to build instruments that are well suited for a sample. With regard to the explanatory sequential mixed methods, researchers first conduct quantitative research, analyse the results, obtain the findings, and then build on and respond to these findings qualitatively (Creswell, 2013). This design is considered as explanatory because researchers explain and respond further to the initial quantitative results using qualitative data. The method is sequential in that the first phase is quantitative whereas the second phase is qualitative.

Different scholars have categorised the way quantitative and qualitative approaches can be integrated into one research project. For example, Greene, Caracelli, and Graham (1989) considered the purpose of the investigation to categorise mixed methods studies. According to them, mixed method research has five purposes: triangulation, complementarity, initiation, development, and expansion. Table 5.2 explains these categorisations.

Table 5.2 *Categorisation of Mixed Methods as per the Purpose of the Research Investigation*

Categorisation of Mixed Methods	Explanation
Triangulation	Seeing if both quantitative and qualitative results are convergent
Complementarity	Overlapping of different aspects in a phenomenon
Initiation	Identifying paradoxes and contradictions
Development	Using methods in a sequence. For example, quantitative results inform qualitative results or vice versa.
Expansion	Increasing the breadth and scope of the research investigation

Summarised from Greene et al., (1989).

Bryman (2015) argues that this integration of quantitative and qualitative approaches supports a clearer and more comprehensive understanding of a research issue. Thus, mixed methods research has become more trusted and popular. The mixed methods approach emanates from triangulation methods. Denzin (1978) highlights four types of triangulation: data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. Table 5.3 explains these triangulation methods.

Table 5.3 *Types of Triangulation*

Type of Triangulation	Explanation
Data triangulation	Data is obtained from more than one source.
Investigator triangulation	Data is obtained from more than one researcher.
Theory triangulation	Different theories are used to explain the phenomenon.
Methodological triangulation	More than one method is used to obtain data for an investigation.

Denzin (1978)

Jick (1979) argues that triangulation strengthens mixed method research design by offsetting the weakness (limitations) of one method with the strength of another. For example, some participants may feel more comfortable about filling out a questionnaire survey than being interviewed due to the anonymity they have when filling out a questionnaire survey (their identity is kept private even from the researcher). Modell (2009) argues that the methodological

triangulation fits accounting research. He suggests that triangulating the quantitative paradigm with the interpretivism paradigm is widespread and accepted.

Following the pragmatic paradigm, this thesis employed methodological and data triangulation as the researcher used more than one method and obtains data from different resources (a questionnaire survey and semistructured interviews). This study adopted the explanatory mixed method approach by first making use of the quantitative research paradigm (first phase) and then the qualitative research paradigm (second phase) to reach a better understanding of the research issue. The researcher decided to use the quantitative method (questionnaire survey) first to inform the development of the qualitative method (development of semistructured interview questions). Their triangulation allowed for more in-depth findings on how to integrate sustainability education into the Jordanian accounting curriculum. The rationale behind this decision rested on the study's research aims and questions.

The quantitative phase addressed the first aim of the study which was to investigate the perceptions of salient stakeholders towards sustainability education in the accounting curriculum. The quantitative phase addressed the first two research questions of the study which are: How important is it to integrate sustainability education into the Jordanian accounting curriculum, and what do salient stakeholders expect to find in the Jordanian accounting curriculum with regards to sustainability education? This quantitative phase addressed these research questions by revealing factual statistical knowledge about the perceptions of a wide group of stakeholders towards the potential importance of sustainability education in the accounting curriculum in Jordan.

The qualitative phase, however, extends throughout the rest of the study as it addressed one more aim, i.e., to understand the salient stakeholders' perceptions of the challenges and benefits of integrating sustainability education into the accounting curriculum. This qualitative phase addressed the research question: What are the challenges and benefits of integrating sustainability education into the accounting curriculum in Jordan? Data triangulation was employed to address the fourth research question: How can an integrated sustainability accounting model be developed in the Jordanian accounting curriculum? Data triangulation was used in this study because the researcher obtains quantitative and qualitative data from five different groups of salient stakeholders to develop a salient stakeholder-driven model of sustainability accounting education in Jordan. The next section discusses the philosophical framework and methods underpinning the mixed methods approach adopted for this study.

5.5 Adoption of Philosophical Assumptions Framework

This section discusses the philosophical assumptions the researcher adopted for this study. Philosophical assumptions are classified into epistemological and ontological assumptions. According to Guba and Lincoln (1994) and Tashakkori and Teddlie (1998), epistemological assumptions indicate the construction of knowledge and highlight the dualism between the knower and known. However, ontological assumptions, according to Guba and Lincoln (1994), highlight the nature and ways of social reality. Ontological assumptions can be discussed from two main perspectives: the nominalist and realist viewpoints. As already noted, this study consists a quantitative phase and a qualitative phase.

For the first phase, the researcher considers himself to be a realist, while, in the second phase he behaves as a nominalist. Adoption of both nominalist and realist viewpoints is allowed as long as doing so assists the researcher to achieve the study's aims in line with the pragmatic paradigm, as explained previously. Unlike nominalists, realists argue that social reality is singular and it happens and exists beyond and extrinsically to the knower (Tashakkori & Teddlie, 1998), whereas nominalists argue that individuals and society construct their perceptions of social reality (Belbase, 2007). These perceptions are initially formed by the values, traditions, beliefs, concepts, and norms of individuals and society, and so there is no singular reality in the universe. Nominalists believe that there are several social realities and that they vary based on the perceptions of both individuals and society.

Regarding the ontological assumptions, the researcher subscribes to nominalism and believes that there are multiple realities about sustainability accounting education in Jordan and that these are constructed through the perceptions of different stakeholders. The researcher attempted to understand these realities by investigating the perceptions of five different groups of salient stakeholders. Jordanian stakeholders' perceptions are formed by the values, traditions, and beliefs of their society. In both the quantitative and the qualitative phases of this study, the researcher ensured that all five different groups of salient stakeholders were involved in order to obtain multiple realities about the integration of sustainability education into the Jordanian accounting curriculum.

The researcher believed that to deeply understand and respond to the multiple realities discovered in the first phase of the study (questionnaire survey) it was necessary in the second phase of this study to conduct interviews with different groups of salient stakeholders. He believed that this second phase of the study (interviews) would reveal multiple realities based

on the different perceptions of the interviewees. Choosing a nominalist approach also indicates that the researcher and things being researched are merged and that there is no clear split between them. This position contrasts with the realist approach as realists believe that the truth is out there i.e., that it is external to the researcher and waiting to be discovered.

Epistemological assumptions can be discussed from two main stances: positivist and interpretivist viewpoints (Belbase, 2007; Tashakkori & Teddlie, 1998). Positivists argue that the results and findings of research should meet certain specifications such as objectivity, truth, and generalisability, whereas interpretivists believe that research findings are subjective and that the research's truth and findings can be generalised only to the sample (Williamson, 2006). The pragmatic paradigm allows the researcher to adopt both epistemological viewpoints (Crotty, 1998). The researcher adopted the positivist (quantitative) viewpoint when conducting the first phase of this study and an interpretivist viewpoint for the second phase. As regards epistemological assumptions, the second phase of this study followed the interpretive school of thought. This school rejects the idea that truth or universal laws exist externally to the researcher as there are multiple realities and not one single reality (Gregor, 2005). Instead, truth and findings are created through a subjective interpretation of the social world (Gregor, 2005).

Philosophically, this study adopted the pragmatism paradigm as it allowed the researcher to mix different paradigms when conducting both the quantitative and qualitative phases in this research study. Accordingly, in the first phase (quantitative/questionnaire survey) the researcher adopted the quantitative paradigm, and the interpretivist paradigm for the second phase (qualitative/interviews) of this study. Interpretivism considers explanations and interpretations of the meanings and experiences of the constantly changing social world (Williamson, 2006). Therefore, interpretive studies usually attempt to understand how individuals perceive a particular phenomenon and to describe individuals' understanding towards this phenomenon (Morgan, 2007; Morgan & Smircich, 1980; Schutz & Luckmann, 1973).

In regard to data collection methods and data analysis, the researcher adopted the quantitative approach and used a questionnaire survey in the first phase of this study. The researcher also analysed the data quantitatively using statistical tools. However, the researcher adopted the interpretivism paradigm in the second phase to collect and analyse the data. The researcher used semistructured interviews for the second phase. Thus, the second phase was based on

interviewing people, a method used by interpretivists to understand their social world. The next section discusses the research methods adopted for this study.

5.6 Research Methods

This section explains the research methods adopted for this study. The section begins with a discussion on how the sequential mixed methods approach¹³ was applied in this study. Thereafter, it discusses the research methods adopted for phase one (questionnaire survey) and phase two (semistructured interviews) separately and explains the sample, data collection, and data analysis process for each phase.

5.6.1 Adoption of Sequential Mixed Methods

This study adopted an explanatory, sequential mixed methods (quantitative and then qualitative) approach to achieve its aims. The explanatory sequential mixed method adopted fits this study because, according to Creswell and Clark (2011), the sequential mixed method is useful if the researcher needs to respond to the results of one method using the other method. This study accordingly was divided into two phases which are the quantitative phase and the qualitative phase. Using this explanatory sequential mixed method approach, the researcher collected quantitative data in the first phase, analysed this data and then relied on those results to plan and build on them in the second qualitative phase (Creswell, 2013).

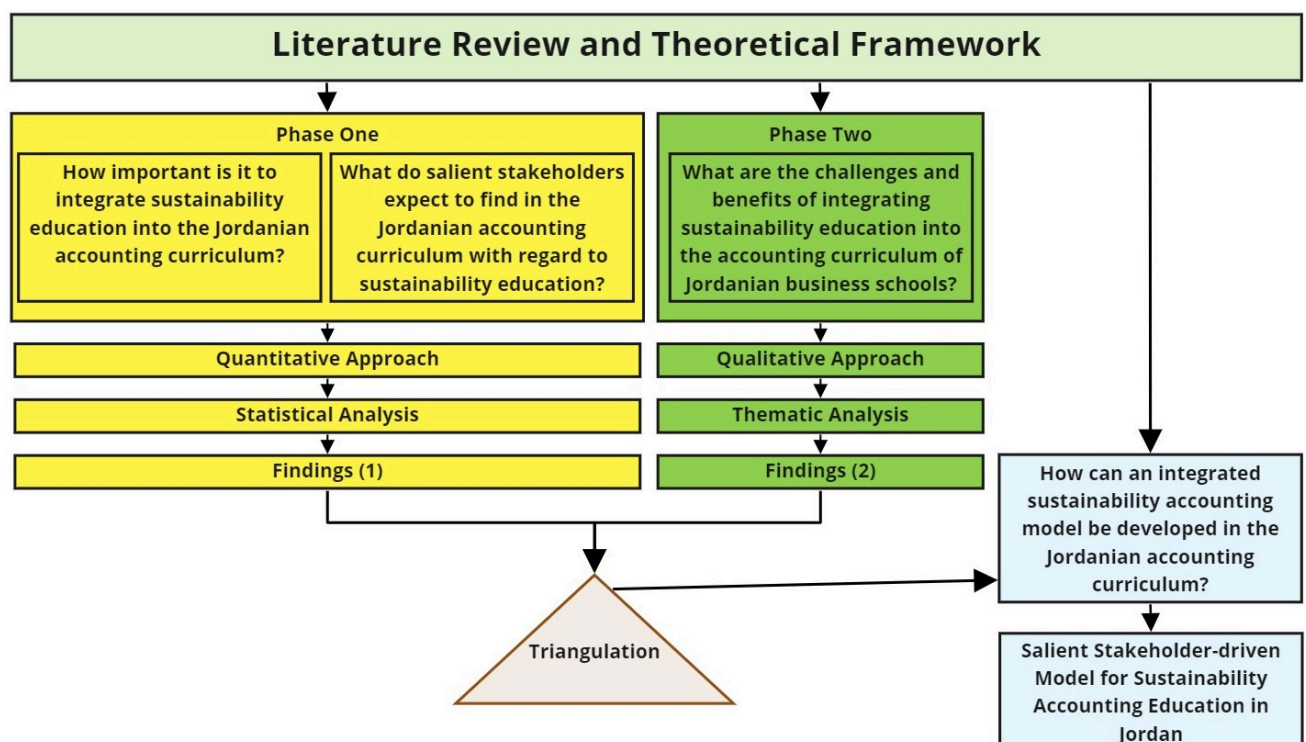
Quantitative results are typically used to inform the researcher not only about the types of participants who should be selected for the second qualitative phase, but also the types of questions participants need to answer. In other words, qualitative data is supposed to explain, respond to, and support the quantitative results. For this reason, the first phase of this study took the quantitative approach followed by the qualitative approach in its second stage. The first phase of this study attempted to achieve the study's first aim by answering the first two research questions: 1) How important is it to integrate sustainability education into the Jordanian accounting curricula? and 2) What do salient stakeholders expect to find in the Jordanian accounting curricula with regards to sustainability education? It was expected that the first phase of the study would help to refine the questions asked in the second phase because the second phase's aims would be fulfilled through the findings of the first quantitative phase. In other words, the primary purpose of the first phase was to explore the current situation and provide initial exploratory analysis of the stakeholders' perception of the potential importance

¹³ See section 5.4 "Mixed method design" for discussion about sequential mixed methods.

of integrating sustainability education into accounting curricula in Jordan. This exploration in turn helped establish multiple realities about the stakeholders' needs around sustainability education and the importance of integrating sustainability education into the accounting curricula in the universities of Jordan.

Phase one's findings and the discussion of them resulted from analysis of the participants' responses to the questionnaire survey's closed-ended and open-ended questions presented. Based on this analysis, the second phase was launched. Phase two (qualitative) addressed the second aim of this study which was to understand the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum. Phase two used semistructured interview questions designed to address the third research question: What are the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum? Under an interpretivism approach, interviewees were asked to answer and discuss a set of open-ended questions. Finally, the data triangulation between the quantitative and qualitative findings enabled the researcher to address the last aim of the study—the development of a salient stakeholder-driven model of sustainability accounting education in Jordan. Figure 5.1 shows how the explanatory, sequential mixed methods approach is used in this study. The next sections explain the research methods employed in the study's quantitative and qualitative phases.

Figure 5.1 *Explanatory, Sequential Mixed Methods of this Study*



5.6.2 Research Methods for Phase One: Quantitative Questionnaire Survey Stage

This section discusses the sample selection strategy for the questionnaire survey. It also explains the process of data collection, the questionnaire instrument, and the methods of analysis.

5.6.2.1 Sample selection strategy for the questionnaire survey

It is important to have a good sample selection because it is not possible to study an entire population. Sample selection concerns not only selecting participants to interview or events to observe, but also consideration of settings and processes (Punch, 2013). Therefore, sampling issues involve strategies that relate to selecting institutions for a survey as well as individuals within these selected institutions. It is difficult to summarise these sampling strategies for research because of the diversity of research approaches, purposes, and settings (Punch, 2013). Nevertheless, despite the huge differences among these strategies, scholars have discussed and classified sample selection strategies that can be used in research studies (Bryman, 2015; Johnson, 1990; Miles, Huberman, & Saldana, 2013). As Bryman (2015) emphasises, the best strategy to adopt depends on the research purpose and its suitability to the research aims and questions.

The strategy of sample selection chosen for the first phase of this study should, therefore, achieve its aim, that is, to explore the perceptions of salient stakeholders towards the importance of integrating sustainability education into accounting curricula in Jordan. To achieve this research aim, it was necessary to identify the population for the study. The population for this study consists of those stakeholders who are interested in (influence/are influenced by) the issue of sustainability, accounting, and education in Jordan.

The literature on sustainability accounting education shows that these salient stakeholders are stakeholders such as universities (i.e., accounting students and accounting educators), industrial companies (i.e., their managerial accountants and other practitioners), and professional accounting associations (i.e., Jordan Association of Certified Public Accountants and Jordan Association of Management Accountants). In addition, salient stakeholders can be government employees (i.e., employees of the Ministry of Environment, Ministry of Higher Education, Ministry of Health, and Ministry of Trade, Supply and Industry).

However, at a micro level, not all individuals working in these organisations can respond to the questions asked in the questionnaire because only certain individuals have enough

knowledge about sustainability and/or accounting in Jordan. Those participants should have at least a background in the research topic and should best represent their organisations. As the researcher already knew some of these people, he was able to reach out to them and ask them to participate. The researcher believed that purposive and/or representative sampling was the most appropriate strategy for selecting a good sample for the study's questionnaire survey. Accordingly, the researcher carefully selected a sample comprised of individuals from all types of stakeholders within the population on the basis of the different criteria shown in Table 5.4. These criteria are justified next.

Table 5.4 *Salient Characteristics of the Selected Participants for Phase One*

Total Population	Criteria for Sample Selection	Criteria for Selecting the Individual Respondents
29 Universities	All universities	All accounting educators with PhD qualification; An appropriate number of third and fourth-year accounting students selected randomly from each university considering the estimated population and a level of significance 5%
10 Industrial Subsectors Listed on the Amman Stock Exchange (ASE)	The most hazardous industries; all companies in the chemical subsector and all companies in the mining and extraction subsector; total companies 23	All accountants working in targeted companies
25 Ministries	Seven ministries that relate best to the research topic i.e., Higher Education, Environment, Industry and Trade, Health, Energy and Mineral Resources, Agriculture, and Water and Irrigation.	Individuals selected from each ministry based on their positions and experience; based on the snowballing method
2 Accounting Associations	Jordan Association of Certified Public Accountants and Jordan Association of Management Accountants	All accountants from each association as both associations are relatively small

The targeted sample for this phase comprised five different groups of Jordanian stakeholders: accounting educators, accounting students, accountants within industrial organisations, government employees, and accountants working in accounting associations. In Jordan there are: 29 public and private universities (Ministry of Higher Education and Scientific Research, 2017); 10 industrial subsectors listed on the Amman Stock Exchange (ASE) (Amman Stock Exchange, 2017), with each subsector containing several companies within the same type of industry; 25 ministries (Jordanian e-Government, 2017); and, two accounting associations (Jordan Association of Certified Public Accountants, 2017; Jordan Association of Management Accountants, 2017).

All the selected accounting educators hold at least a PhD in accounting. The researcher focused only on third- and fourth-year accounting students because they have studied most of the required papers/courses within their accounting curriculum, and so their responses can be considered as more accurate than those of first- or second-year students. The number of students considered in this phase of the study was appropriate for the estimated total population of the third and fourth-year accounting students in all universities in Jordan based on a level of significance of 5%, a percentage which is popular in most social studies (Barlett, Kotrlik, & Higgins, 2001).

The researcher also preferred to focus on industries that can be considered as more hazardous to stakeholders than other types of industries. The researcher used a snowballing technique (Saunders, 2011) in determining who the appropriate government employees for the study were. The researcher worked in the Ministry of Industry in Jordan in 2015, and so he maintained good relationships with some important government employees who helped him to reach to the first appropriate government employee in each of the selected ministries to participate in the study. The researcher also worked in the Hashemite University of Jordan (a public university) and he has colleagues who helped him to reach to the first appropriate participant from the Ministry of Higher Education. After meeting the first participant from each ministry, snowballing was used to identify other potential participants that first participants had recommended. Jordan has two accounting associations: the Jordan Association of Certified Public Accountants (JACPA) and the Jordan Association of Management Accountants (JAMA). Both associations are relatively small, and so the researcher was able to consider all accountants working there. The next section details the specific numbers of participants in each category.

5.6.2.2 Data collection methods of the questionnaire survey

Social researchers work with both primary data which is gathered specifically for particular research and secondary data that already exists for purposes other than the specific study (Matthews & Ross, 2014). Primary data collection methods vary and take four forms: interviews, questionnaires, documents, and observations (Matthews & Ross, 2014). Social researchers consider such methods as the microscope, the micrometre, and the scales to use for exploring an existing research issue (Denscombe, 2014). These instruments help social researchers reach clearer images and accurate measures of things, proofs, and facts about a specific subject (Denscombe, 2014). In phase one of this study, the researcher used a questionnaire survey to achieve the study's first aim. This method was deemed to be the best match as it focuses on revealing the opinions of wide groups of people at the micro level and their attitudes and wishes towards a particular idea (Matthews & Ross, 2014).

A questionnaire survey is a set of questions that can be answered by the research participants in several ways. Most questionnaires are designed to collect already structured data, and so they include a set of answers that respondents can choose from (Matthews & Ross, 2014). However, having preset questions does not prevent the researcher from adding some open-ended questions to the questionnaire as doing so allows respondents to answer in their own ways (Munn & Drever, 2004). It is also important for a researcher to ask participants the same questions in the same order, to give them the same set of answers to choose from, and to use the same wording (Matthews & Ross, 2014). Moreover, questionnaire surveys are commonly used in cross-sectional studies where data is collected from a sample of a larger population. The purpose of collecting such data is to compare the experiences and characteristics of different groups of participants or to explore a relationship between different characteristics (Matthews & Ross, 2014). In addition, different types of data can be gathered using a questionnaire survey. This data may include facts (e.g., about people or events), descriptions (e.g., people's descriptions about something that has happened to them), knowledge (e.g., what people know about something), and opinions (e.g., what their opinion is about something they know about). A questionnaire can also survey attitudes and values (e.g., people's attitudes towards an idea) and gather other background information about respondents that can be linked to the research issue (Matthews & Ross, 2014).

However, to gather such kinds of data the researcher needs to think of different types of questions that are suitable for a questionnaire. These questions are based on the type of data

the researcher needs to collect. Consequently, the way a question is asked determines the range of possible answers that respondents are provided with. In the main, a questionnaire survey produces quantity data (e.g., a number of times), category data (e.g., age category), and data chosen from a list of possible answers (e.g., yes/no/don't know). Survey questions can also ask participants to choose a position on a scale (e.g., ranging from very important to not important), rank something (e.g., first choice, second choice etc.), and provide open data (e.g., open questions where respondents answer in their own words).

In the first phase of this study the researcher explored the perception of a wide group of stakeholders towards the importance of integrating sustainability education into the accounting curriculum in Jordan. In other words, he sought the opinions, attitudes, and expectations of a wide group of stakeholders towards the issue of sustainability education in the accounting curricula in Jordan. To fulfil the research aim of this phase of the study, the researcher could have chosen to adopt a survey instrument that had already been developed and used for another study, with some modifications if necessary, or to have developed and constructed a new survey instrument that suited this particular research study (Matthews & Ross, 2014).

Drawing on a review of prior studies such as Kagawa (2007), Sen et al. (2010), Zulkifli (2011), Pattanayak et al. (2011), Sharma and Kelly (2014), Choubey and Pattanayak (2014), Al-Htaybat, von Alberti-Alhtaybat, and Alhatabat (2018), the researcher constructed a new survey instrument. This questionnaire survey instrument contained questions that strongly related to general issues of sustainability education and the accounting curriculum in Jordan. As there were no studies within this area of knowledge in Jordan that the researcher could rely on, he prepared his own questionnaire survey. The major type of question used involved a 5-point Likert scale¹⁴ which enabled respondents to evaluate ideas and attitude statements on a scale ranging from 'Not important' to 'Very important' (Moser & Kalton, 2017).

The questionnaire also contained an open-ended question that addressed the challenges of sustainability accounting education in Jordan. In addition, the questionnaire survey included an introduction to the research, an explanation of what would happen to the answers, a note about the confidentiality of the information, and a contact number for respondents who might have follow-up questions about the survey. The researcher distributed the questionnaires to the targeted sample and collected them after completion. The researcher preferred to visit the

¹⁴ The level of importance is based on a 5-point Likert scale, where (1) means "Not important" and (5) means "Very important".

respondents personally in their workplaces and not to email the questionnaires to them because he knows that people in Jordan may not pay attention to such questionnaire surveys if they are received via emails. Completing the questionnaire survey took between 20 and 30 minutes on average. The data collection process started in January 2018 and lasted for over 3 and a half months.

In all, 966 questionnaires were distributed to purposively selected participants, covering the sample explained in Table 5.4 above. Of these 966 questionnaires, 847 were collected. Of these 847, 145 questionnaires were unusable because they were incomplete. The final 702 usable responses provided a response rate of approximately 72.6%. Table 5.5 shows the details regarding the response rate for the study sample. To ensure the quality of the data collection instrument (questionnaire survey), the researcher adopted a pretest study (pilot study).

A pilot study of the questionnaire was conducted to help identify issues such as validity and other possible problems with the questionnaire (Matthews & Ross, 2014). Identified problems were fixed just before the main data gathering, as explained in the next section. The questionnaire survey had seven parts. Part one related to demographics and classified the 702 participants on the four variables of gender, occupation, work experience, and level of education. Table 5.6 (next page) shows this classification as per the participants' answers.

Table 5.5 *Total Numbers of Distributed and Collected Questionnaires*

Participants	Code in SPSS	Number of questionnaires distributed (A)	Number of questionnaires collected and usable (B)	Percentage (%) B/A	Percentage (%) B/702
Accounting educators	Edu	218	157	72	22.4
Accounting students	St	500	365	73	52
Industry	Ind	138	80	58	11.4
Government	Gov	60	52	86.7	7.4
Accounting associations (Accounting Profession)	AP	50	48	96	6.8
Total		966	702	72.6	100

Table 5.6 *Participants' Classifications as per their Demographics (Part I of the Survey)*

Variable	Classifications	Number of participants (N)	%
Gender	Male	475	67.7
	Female	227	32.3
	Total	702	100.0
Occupation	University educator	157	22.4
	University student	365	52.0
	Accountants at industrial organisations	80	11.4
	Government employees	52	7.4
	Accountants at accounting associations	48	6.8
	Total	702	100.0
Work experience	No work experience	365	52.0
	Fewer than 5 years	67	9.5
	5 to 10 years	146	20.8
	More than 10 years	124	17.7
	Total	702	100.0
Level of education	Third-year accounting student	161	22.9
	Fourth-year accounting student	204	29.1
	Bachelor's degree	119	17.0
	Master's degree	49	7.0
	Assistant professor	107	15.2
	Associate professor	43	6.1
	Full professor	15	2.1
	CMA	4	0.6
	Total	702	100.0

Parts two to six respectively investigated the role of sustainability accounting education in Jordan; the usefulness of sustainability accounting education in Jordan; the suitability of sustainability accounting education in addressing the aims of Jordanian higher education; methods of integrating sustainability education into the accounting curriculum; and, proposed sustainability accounting topics. Part seven of the survey consisted of an open-ended question regarding the challenges of sustainability accounting education in Jordan. The next section discusses the quality of the questionnaire survey.

5.6.2.3 Quality of the questionnaire survey

The quality of a questionnaire survey refers to its validity and reliability. The researcher validated the questionnaire survey in three ways suggested by Burgess (2001) and Boynton (2004). They suggest that the questionnaire survey should be first reviewed by experts in the research issue that the questionnaire attempts to address. Secondly, the survey should be distributed to a few potential participants to check whether it is readable and clear. Thirdly, the researcher should observe the process of filling in the first few distributed questionnaires to ensure that the process will go smoothly for all participants.

This study applied these three steps as follows. First, two experienced researchers in New Zealand who have a PhD in accounting reviewed the questionnaire survey. Two experienced researchers from Jordan also reviewed the questionnaire survey. These Jordanian researchers also have a PhD in accounting and they both work as educators in Jordanian universities. The researchers from Jordan suggested that two statements (questions) in part 5 of the questionnaire survey should be removed because they were contradictory. The questionnaire survey was amended accordingly. Second, the questionnaire was administered to some friends who are studying for a PhD in accounting. They were asked to check the questionnaire for any ambiguity in its wordings. After ensuring that the questions in the survey were clear and understandable, it was translated into Arabic because all participants' first language is Arabic. The researcher adopted appropriate techniques to ensure an accurate translation. It was translated into Arabic, and then a third party who is bilingual in English and Arabic checked the translation. The third party compared the two versions to ensure an accurate translation (Alkharusi, 2013). Third, the researcher observed the first few participants while they filled in the questionnaire survey and took notes on the time spent on responding to it. The researcher also took notes on any problems participants might face and observed participants' reaction to the questionnaire's format and questions¹⁵.

The reliability of the data collected depended on the reliability of the questionnaire survey used to collect this data. Scales are often used in survey instruments to measure the issue a researcher wants to investigate (Matthews & Ross, 2014). Accordingly, the researcher first used a 5-point Likert scale and later summed those scores to reach a score associated with a particular group of participants. The purpose of this questionnaire survey was to explore the level of significance

¹⁵ The researcher asked some of the first participants to allow him to observe them while filling in the questionnaire. While filling in the survey participants were free to show any reactions or provide any comments.

and the needs for sustainability education integration into the accounting curriculum according to the Jordanian salient stakeholders' perceptions. Reliability issues appear when research is repeated in a similar area context. One reliability statistic that is popular nowadays is Cronbach's alpha (Cronbach, 1951). It determines the average correlation or internal consistency of items in a survey instrument to measure their reliability. In other words, the Cronbach's alpha test explores whether the instrument will provide stable and reliable responses upon repeated usage (Coakes & Steed, 2009).

The value of Cronbach's alpha ranges between 0 and 1, where 1 indicates a high and complete degree of reliability and 0 indicates a zero degree of reliability. Accordingly, the researcher conducted a pilot study before distributing the questionnaire survey to all participants. The researcher initially distributed the questionnaire survey randomly to 30 participants who belonged to the same groups of stakeholders targeted in this study, for instance, accounting students and educators. The data collected was then coded using SPSS 22 software and the Cronbach's alpha was calculated. Table 5.7 shows this calculation.

Table 5.7 *Cronbach's Alpha of Reliability*

Reliability Statistics	
Cronbach's Alpha	N of Items
0.942	47

Source: Pilot test data analysis of SPSS 22 software's output

Table 5.7 indicates that the value of Cronbach's alpha for the pilot study was 0.942. Therefore, the instrument was deemed reliable and the researcher completed the data collection process with some confidence. The next section explains the data analysis process of the questionnaire survey.

5.6.2.4 Data analysis methods of the questionnaire survey

Having gathered the required data, researchers analyse the data to describe, discuss, evaluate, and explain the content and characteristics of this data, and reach a conclusion (Matthews & Ross, 2014). Although data analysis methods vary, they all share two important features (Matthews & Ross, 2014). The first feature is that these methods can be systematic, which means each piece of data (e.g., case study, person, and event) is treated in the same way. The second feature is that these methods can be comprehensive, which means all data collected is included in the analysis. Moreover, the nature of the data is important. In a questionnaire survey, data is structured. Thus, the questions are identical for each participant, and each

question has a common set of answers. The most analytical approaches used for structured data are based on counting the number of cases with specific characteristics or answers. Therefore, structured data is analysed using statistical techniques. Statistical analysis of data is used to summarise, describe, and explain the data in terms of the research questions or hypothesis (Bryman & Cramer, 2009). In other words, statistical analysis is used to summarise and describe the data collected, describe the features of the data in a way that is useful for the researcher to identify aspects relevant to the research questions, and to explore and test relationships between different groups of data.

In the quantitative phase of the study the researcher first checked the collected questionnaires and gave each data source a unique identifier. These identifiers distinguished one source of data from another. For example, all questionnaires collected from universities have the same identifier; the industrial companies carry a different identifier. In this way the researcher was not only able to easily analyse the data of all participants, but also to make comparisons across the groups of participants. The researcher then organised the quantitative data by assigning a variable name to each question in the questionnaire and a code number for each answer. The last few steps involved preparing the data for analysis. As a first step in the analysis, the researcher produced a number of frequency tables that enabled him to know how many of each code or answer had been given for each variable. That process provided a preliminary view of how the answers to the questions were distributed.

The researcher employed IBM SPSS Statistics v.22 software for the statistical analysis (Bryman & Cramer, 2009). Descriptive analysis was also used to summarise and describe the data gathered about each variable in terms of the frequency of each code or answer, the distribution of answers across the codes, and summary statistics (e.g., means, medians and modes, and percentiles) (Bryman & Cramer, 2009). The researcher then addressed the research questions of phase one in this study by focusing the analysis on aspects of the relevant data (gathered initially to answer a particular research question). For this purpose, the researcher used different types of analysis (i.e., means, standard deviation, t-test, one-way ANOVA and post hoc test). Because the Likert scale used in this study was a 5-point scale, the study considered a mean value of 3.4 or over as 'important' in the overall analysis, based on the equation $(N-1)/N$, in which the interval's length is $(5-1)/5$ which equals 0.8 (Norman, 2010). Thus, the scale set for this study is 1-1.79 for 'not important', 1.8-2.59 for 'less important', 2.6-3.39 for 'moderately important/neutral', 3.4-4.19 for 'important', and 4.20-5.00 for 'very

important'. The researcher also made use of multiple comparisons-tabulation as it offers the best way to explain the differences between variables and groups and identify hidden aspects (Matthews & Ross, 2014).

The researcher used the t-test to explore any significant differences in the mean values of answers on two variables (i.e., male variable and female variable) and whether these differences are statistically significant (Coakes & Steed, 2009). The researcher also made use of one-way ANOVA analysis to compare the means value of more than two groups such as the means value of educators, students, industrial practitioners, government, and accounting associations. In other words, one-way ANOVA was used to explore if there were any significant differences in answers amongst all compared groups.

For this study, a 95% level of significance was adopted which means that differences are statistically significant at the level of significance $\alpha \leq 0.05$, which is appropriate in social studies (Coakes & Steed, 2009). One-way ANOVA analysis is useful when comparing ordinal variables (Bryman & Cramer, 2009). An ordinal variable is one that has categorisation or codes that can be ranked in some way (e.g., on a scale from very important to not important). Post hoc tests are an integral part of ANOVA.

ANOVA is used to test the equality of at least three group means. The statistically significant results of ANOVA indicate that not all of the group means are equal. However, ANOVA results do not identify which particular differences between pairs of means are significant. The use of post hoc tests explores differences between multiple groups means. When it is decided that the existing differences are significant, post hoc analysis is used to explore the locations and directions of these differences. In other words, while one-way ANOVA determines whether differences amongst groups are significant, post hoc analysis is used to explore the exact locations and directions of these significant differences (Coakes & Steed, 2009).

Parametric tests include ANOVA and t-test. T-tests assume that the means of the different samples are normally distributed and there is homogeneity of variance. The normal distribution of data is the most important and common distribution used in social science research (Patel and Campbell, 1982; Yang, 2007). The distribution of data is considered as normal if most of the data are centred around the mean value of observations (Rumsey, 2021). In normal data distribution, observations likely fall within one standard deviation of the mean value. In other words, standard normal deviation indicates that more than two-third of the observations have

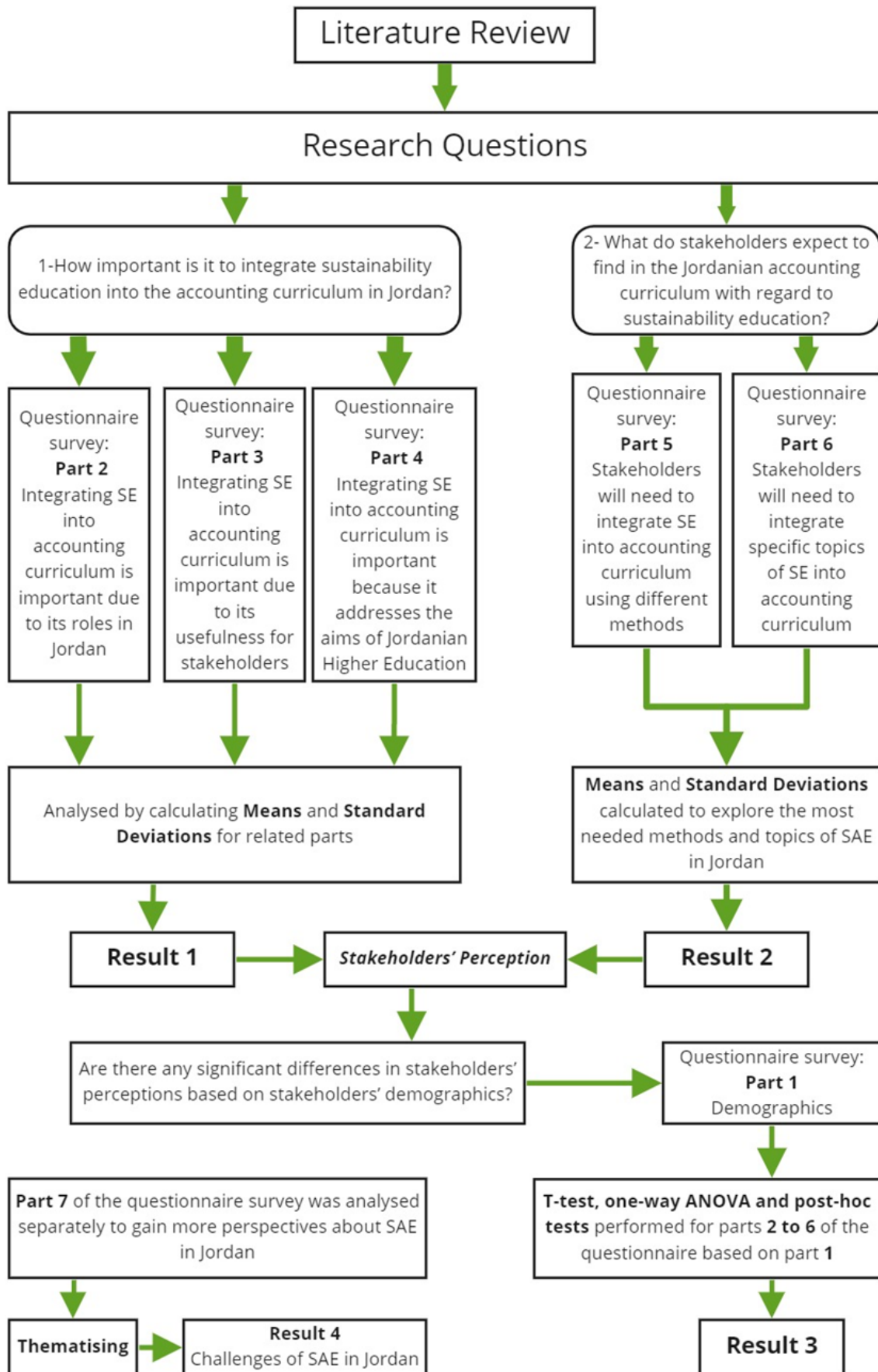
a value between -1 and +1 (Patel and Campbell, 1982; Yang, 2007). The data distribution of this study can be considered as normal distribution because all calculated standard deviations in the t-test fall between -1 and +1 (see Table 6.2 in chapter 6). Similarly, ANOVA assumes that the data is normally distributed and so there is homogeneity of variance. This means that the variance (standard deviation) among the groups is approximately equal. The ANOVA results in this study show that more than two-third of the calculated standard deviations fall between 0 and 1 (see ANOVA results on SDs in Tables 6.3, 6.8, 6.13, 6.17, and 6.22 in chapter 6).

However, Norman (2010) believes that both tests (t-test and ANOVA) can be used not only with large but also with small sample sizes, and regardless of the assumption that data should be normally distributed. Norman (2010) states that:

Parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions, with no fear of “coming to the wrong conclusion”. These findings are consistent with empirical literature dating back nearly 80 years. (p. 631)

Finally, answers to the open-ended question were thematised because answers to such type of questions do not contain any numbers or even specific words. Thus, it is hard to analyse them statistically. Themes obtained were considered as final findings. Figure 5.2 explains the overall process of phase one of this study. The results and findings of this statistical analysis guided the researcher to set a group of qualitative questions for further analysis, as explained next in the sections on the second phase of this thesis.

Figure 5.2 Overall Process of Phase One of this Study (Quantitative Phase)



5.6.3 Research Methods for Phase Two: Qualitative Semistructured Interviews

This section discusses the qualitative phase of this study. In qualitative research data is collected through means such as interviews, observations, documents, and narrative (Matthews & Ross, 2014). Taking into consideration the research aims and questions of this phase of the study, semistructured interviews were deemed to be the most suitable method. Semistructured interviews result in mutual understanding and explanation throughout an organic, adaptive, and energising path (Jenner, Flick, von Kardoff, & Steinke, 2004). Semistructured interviews can subjectively explain the interviewees' perspective as well as their lived experiences (Tracy, 2012). Through semistructured interviews the researcher can explore complex and hidden phenomena (Tracy, 2012). This study accordingly adopted semistructured interviews to effectively collect qualitative, open-ended data that explored the salient stakeholders' thoughts, beliefs, and feelings about the integration of sustainability education into the Jordanian accounting curriculum (Fylan, 2005; Raworth, Sweetman, Narayan, Rowlands, & Hopkins, 2012).

Interviewing is not only about questions and answers; it is also an active process in which the researcher seeks an understanding to the perception of individuals towards a particular issue (Frey & Fontana, 2005). The basic categories of interviewing include focus groups, internet interviews, casual conversations and in-passing clarifications, and semistructured and unstructured interviews (Rubin & Rubin, 2011). This study adopted semistructured interviews because a number of techniques can be used to analyse the data collected through interviews. These techniques include thematic analysis, content analysis, and discourse analysis (Matthews & Ross, 2014). The second phase of this study aimed to understand the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum. The next sections discuss the sample selection strategy, the data collection methods, and the methods of data analysis.

5.6.3.1 Sample selection strategy for the semistructured interviews

The sample selection strategy for the second phase of this study was purposive¹⁶. The rationale behind a purposive sampling is that the researcher needs to select those individuals whom he feels are most knowledgeable and suitable for interview (Matthews & Ross, 2014). These interviewees should have enough knowledge about and good background in the research topic

¹⁶ Purposive means that the researcher selected participants on purpose based on, for example, their knowledge and experience of the research issue.

so that they can enrich the research study with needed data. Therefore, the researcher believed that only a purposive strategy would enable him to select the best sample because purposive sampling allows the researcher to select a sample that includes individuals who have experiences, ideas or opinions that relate to the research topic.

The researcher also took into consideration that the selected individuals should have a range of different relevant knowledge, experiences, and perspectives so that the researcher could gather many different ideas and so avoid potential bias within the sample. The researcher ensured that participants represented (belonged to) different institutions such as universities, industries, government, and professional accounting associations. A sample of all these institutions enabled the researcher to represent the entire population. This population, as in phase one of this study, consisted of four types of stakeholders in Jordan. These are: universities, industrial companies listed in the Amman Stock Exchange (ASE), the government of Jordan, and Jordan’s accounting associations. The researcher relied on a snowballing method to reach the most suitable participants who could represent all the salient stakeholders. The researcher worked in both the higher education sector and the government of Jordan, as mentioned before, and this helped him determine the appropriate first participant in each participating group. A total of 46 stakeholders were interviewed and their profiles are shown in Table 5.8.

Table 5.8 *Sample Selection for the Second Phase of the Study*

Groups of stakeholders	Number of interviewees	Code in Nvivo
Universities	21 accounting educators	EP
	10 accounting students	SP
Industries	5 accountants (practitioners)	IP
Government	5 government employees	GP
Accounting Associations (Accounting Profession)	5 accountants from professional accounting organisations	PP

The researcher believed that the saturation level for this phase of the study was about 40 participants as additional participants would most likely repeat what others had said previously but in different words. However, on the assumption that accounting educators as a group have a high level of salience, the researcher focused more on interviewing such individuals because they are all experts in accounting and accounting education, have a PhD in accounting, and are able to bring about change to the accounting curriculum.

5.6.3.2 Data collection methods: Semistructured interviews

In qualitative research, researchers use semistructured interviews to collect qualitative data if they need to know about people's experiences, behaviour, and understandings (Wengraf, 2001). Such researchers are also interested in the data given by participants and how participants talk about their experiences and attitudes. Thus, researchers are interested in both the content of the interviews and the words used by participants to express themselves. In semistructured interviews, researchers follow a common set of questions for each interview but they can introduce these questions in different ways or methods semistructured in a different order according to what is best suited for each interview. Semistructured interviews give participants the freedom to answer the questions and discuss the issue in their own words.

Semistructured interviews are used in different ways (Matthews & Ross, 2014; Wengraf, 2001). For example, in exploratory research they can be used to discover the importance participants give the research issue and the language people use to talk about the research issue. Moreover, semistructured interviews are used in explanatory research to explain why people understand or experience a social phenomenon in a particular way. In other words, semistructured interviews are used in explanatory research if the researcher is attempting to explore interviewees' experiences, opinions, and feelings. The focus here is on how interviewees explain their behaviour and understandings in their own words (Raworth et al., 2012).

Furthermore, semistructured interviews are used for evaluation. Researchers use semistructured interviews when they need to discover what participants think about a particular social phenomenon such as a new policy or a proposed plan or model. In such a case, the participants must have a good knowledge of this social phenomenon. The semistructured format of interviews allows the researcher to explore, with the interviewee, different aspects of the phenomenon and to identify and elaborate on, for example, perceived advantages and drawbacks (Matthews & Ross, 2014; Raworth et al., 2012). Semistructured interviews also allow the interviewees to express their opinions, perceptions, experiences, and values in their own words.

In this qualitative phase, the researcher used semistructured interviews as a way to answer the third main research question of the study which asked: What are the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum? The researcher attempted to understand how people experienced, understood, and perceived the challenges

and benefits if sustainability education were to be integrated into the accounting curriculum. In addition, the researcher cross-checked the interview data with some of his analysis of the data collected through questionnaires in phase one of this study. In this way, the researcher reported and shared his analysis and interpretations of that data with the interviewees and checked whether some of the interpretations, findings and results made sense to them as experts.

The researcher conducted the semistructured interviews as follows: first, he contacted the potential participants by phone or via a communication tool such as Facebook, WhatsApp, Rebtel, or Skype. He briefly introduced himself and the issue under investigation and asked for permission to conduct an interview. Second, the researcher emailed interviewees a copy of the participants' information sheet and the interview questions and asked for a suitable date and time to run the interview. Just before the interview started, the researcher asked for permission to record the interview for transcription purposes only. The researcher needed to record these interviews to make sure that he did not miss any useful data; he transcribed the entire interview and prepared it for analysis.

For ethical reasons, the recorded interviews were all destroyed soon after they had been transcribed. The average time for each semistructured interview was around 1 hour. Although the interviews were conducted by, for example, telephone, the researcher was able to discuss any emerging ideas and interact effectively during the interview because both the researcher and interviewees share the same culture, country, and language. All transcripts were translated from Arabic into English and prepared for thematic analysis. The data collection began on 1st September 2018 and lasted for 7 months¹⁷.

5.6.3.3 Data analysis methods for the semistructured interviews

The interview evidence is analysed using different techniques including thematic analysis, content analysis, and discourse analysis. The researcher believed that the best technique to use when analysing the data of this qualitative phase of the study was thematic analysis. According to Grbich (2007), thematic analysis is “a process of segmentation, categorisation and relinking of aspects of data before final interpretation” (p. 16). As the researcher analyses the text thematically, he focuses on interpreting it and obtaining a good understanding of the words, stories, and explanations of the respondents. Thus, thematic analysis aims to describe the data,

¹⁷ Interview data collection took a significant length of time. The researcher was unable to travel to Jordan to conduct the interviews. Thus, communicating with participants to set a suitable date for the interview was a difficult process due to issues like, for example, the time zone difference between Jordan and New Zealand which is about 12 hours.

obtain from it the meanings that the individual who produced it intended, explore the data for meanings, look for relationships between different parts of the data, and explain similarities and differences in the analysed text. This comparison is done by putting each respondent's words alongside the words of other respondents or arranging the content of a series of documents.

In this second phase, the researcher's rationale for deciding to use thematic analysis for the data collected by semistructured interviews rested on the method's ability to develop and identify themes from within the analysed transcript. Themes can be obtained only by describing the data and understanding its meanings as expressed by interviewees. In this study the uncovered themes helped the researcher to understand the challenges and benefits of integrating sustainability education into the accounting curriculum in Jordan. The data was analysed using QSR Nvivo. This is a qualitative analysis computer software package specifically designed to assist in analysing qualitative data, and the researcher used it for this purpose (Bazeley & Jackson, 2013).

Finally, it is important to take into consideration the validity and reliability of a qualitative research study. Whereas qualitative validity can be reached by examining the accuracy of the findings and applying particular procedures (Gibbs, 2008), qualitative reliability refers to the consistency between the researcher's approach and that taken by other researchers and in similar projects (Gibbs, 2008). Validity can be assessed on the basis of how fair the findings are in terms of the viewpoints of all parties included in the research such as the researcher, the participants, and even the reader (Creswell & Miller, 2000).

The validation of findings is detected through the procedures in the process of research analysis. Researchers also can improve the validity of their qualitative research overall by constructing a coherent justification for the themes categorised in the analysis (Creswell, 2013). Therefore, the researcher in this study attempted to look for real and practical justifications as well as evidence that the themes found in the study were valid. Furthermore, the researcher examined the transcripts carefully to ensure that they were free of any mistakes. According to Gibbs (2008), that process makes the study more reliable.

The last step in this study was to triangulate the quantitative and qualitative findings of phases one and two. The researcher for this purpose used a data-triangulation strategy to discuss the convergence/contradictions between the quantitative and qualitative findings (see section 5.4

above). In this way the researcher was able to conclude how to develop a salient stakeholder-driven model of sustainability accounting education in Jordan and so address the study's last research question. In order to reach a better understanding of the research issue and how to address it, the researcher compared the quantitative and qualitative findings looking for supporting and contradictory ideas.

5.7 Summary

This chapter explained the research methodology and research methods adopted for conducting the two phases of this study. Taking into consideration the type and nature of the research aims and questions of this study, the researcher adopted pragmatism and employed a sequential mixed methods approach. The researcher used both quantitative (positivist) and qualitative (interpretivist) approaches to achieve the research's aims. Employing mixed methods led the researcher to a better understanding of the research issue (Morse & Niehaus, 2009). This study was divided into two phases; the first phase, the quantitative phase, used a questionnaire survey. The second phase, the qualitative phase, employed semistructured interviews.

While the sample in the first phase was representative and purposive, the sample used in the second phase was only purposive. In phase one (the questionnaire survey) 966 questionnaires were distributed; 702 of these were usable. In addition, 46 participants were interviewed for the second phase; they all represented different institutions and groups of salient stakeholders. In other words, all the participants were drawn from a population that consists of different stakeholders in Jordan (universities, industrial companies, accounting associations, and the government of Jordan).

Data collected in phase one was analysed using statistical analysis, while the data collected in phase two was analysed using thematic analysis. After obtaining quantitative and qualitative findings, the researcher triangulated between findings from the data collected in both phases and used these findings to discuss the development of the silent stakeholder-driven model of sustainability accounting education in Jordan. The results and discussion of this analysis are presented in the next chapters of this thesis.

Chapter 6

Questionnaire Survey Findings on the Importance and Expectations of Sustainability Accounting Education in Jordan¹⁸

6.1 Introduction

This chapter discusses phase one of this study (quantitative findings). Phase one addresses the first aim of the study which is to investigate the perceptions of salient stakeholders towards sustainability education in the accounting curriculum of business schools in Jordan. The chapter addresses two related research questions which are: How important is it to integrate sustainability education into the Jordanian accounting curriculum? and What do salient stakeholders expect to find in the Jordanian accounting curriculum with regard to sustainability education? The chapter accordingly explores the level of importance participants attach to five different parts of the questionnaire survey (parts two to six)¹⁹. These parts relate to: the role of sustainability accounting education in Jordan; the usefulness of sustainability accounting education in Jordan; the suitability of sustainability accounting education in addressing the aims of the Jordanian higher education; and, the methods and topics proposed to integrate sustainability education into the accounting curriculum. This chapter also discusses significant differences amongst participants' answers where relevant. The chapter discusses the findings on part seven of the questionnaire survey relating to an open-ended question about the potential challenges of sustainability integration into the Jordanian accounting curriculum. This discussion is used to support/contradict the discussions on parts two to six of the questionnaire survey. The chapter concludes with a summary.

6.2 The Role of Sustainability Accounting Education in Jordan

According to Mitchell et al. (1997), salient stakeholders possess at least one of three attributes: power, legitimacy, and urgency. They argue that salient stakeholders possess the urgency attribute if they have urgent claims that managers (e.g., educational providers) need to meet.

¹⁸ The findings of this chapter have been published in the *Meditari Accountancy Research (MEDAR) Journal*. Title of the research paper is "Perceptions of salient stakeholders on the integration of sustainability education into the accounting curriculum: A Jordanian study".

¹⁹ Part one of the questionnaire survey covers the demographics as explained in chapter 5. See Table 5.6 and Figure 5.2 in chapter 5 to view the process of analysing the questionnaire survey parts including part 1.

This chapter examines whether salient stakeholders in Jordan possess the urgency attribute in terms of whether or not they have urgent claims about integrating sustainability education into the accounting curriculum. Mitchell et al. (1997) suggest that claims are urgent if they are time-sensitive or important to stakeholders. Accordingly, this chapter explores and discusses the questionnaire survey's findings on the level of importance stakeholders attach to sustainability accounting education in Jordan. The study participants were asked about the level of importance²⁰ they attached of 10 different potential roles of sustainability accounting education in Jordan. With the exception of one elective general course on CSR in only one Jordanian university, sustainability accounting education currently does not exist in Jordan. It is, therefore, important to investigate participants' perceptions of sustainability accounting education and the roles that it can play in the Jordanian society if it exists.

The majority of participants believe that sustainability accounting education has an important role in Jordan if it is integrated into the accounting curriculum. Approximately 72% of participants' answers fell within the 'important' and 'very important' range, while only 18% chose 'moderately important'. To explore the most important roles of sustainability accounting education in Jordan, means (M) and standard deviations (SD) of the 702 participants' answers were obtained and ranked according to their level of importance. Table 6.1 reports those results.

Table 6.1 Means, Standard Deviations, Ranking of Roles of Sustainability Accounting Education in Jordan

Ran k	The potential roles of sustainability accounting education in Jordan (part two of the questionnaire)	M	SD
1	To highlight and underpin the need for accountability and transparency in Jordanian society	4.11	0.946
2	To produce a better-educated generation of managers who can lead industries more effectively towards their corporate social responsibilities	4.10	0.953
3	To equip future managers with the knowledge required to prepare and implement sustainability implications plans	4.06	0.973
4	To increase students' awareness of organisations' commitments towards social and environmental (sustainability) issues	4.02	0.966
5	To develop new accounting methods and systems for industries	3.95	0.907
6	To enhance accounting functions to extend beyond short-termism profit maximisation issues	3.90	0.937
7	To extend the scope for including nonfinancial disclosures reporting as numbers (calculations) in traditional accounting	3.81	0.944
8	To establish the connection between nonfinancial and financial values within organisations	3.73	0.942
9	To fill a gap in students' accounting education	3.71	1.03
10	To support the reputation of the Jordanian educational system in the Middle East	3.47	1.134
Overall mean of total means of answers for the entire part		3.76	0.644

²⁰ The level of importance is based on a 5-point Likert scale, where (1) means 'not important' and (5) means 'very important'.

The results presented in Table 6.1 confirm that the participants view integrating sustainability education into the accounting curriculum as important. Participants perceived sustainability accounting education as 'important' due to its potential role in Jordan (overall $M=3.76$). However, according to Table 6.1, participants believe that the most important role of sustainability accounting education lies in highlighting and underpinning the needs for accountability and transparency in Jordanian society. This role was ranked first with a mean value of 4.11. This result is in line with Gray (1992) who argues that the role of accounting is simply derived from the need for accountability and transparency. The result also supports Scott et al. (2012) who argue that embedding sustainability into the core business of tertiary education will result in a higher quality of life. Jordanian society is looking for more transparency, and this society believes that accountability is a way to achieve better transparency. According to Narayan (2014), accounting and accountability predominantly influence management decision-making. The participants support sustainability accounting education as a way to increase accountability in industrial companies and so provide more transparency in the future.

Sustainability accounting education's second important role according to the participants is producing 'a better-educated generation of managers who can lead industries more effectively towards their corporate social responsibility'. The third most important role also focuses on future managers and equipping them with the required knowledge to prepare and implement sustainability implications plans. These second and third roles have a mean value of 4.10 and 4.06 respectively. This degree of focus on future managers' education indicates a current lack of sustainability knowledge in the workplace as outlined by Rahahleh and Sharairi's (2008) study of the industrial zones in Jordan. These findings also reinforce Gray and Collison's (2002) arguments that the important role of sustainability accounting education lies in producing a better-educated generation of managers through equipping business organisations with a new generation of future managers and well-trained accountants by adopting sustainability accounting education. This adoption can be addressed by highlighting social subjects and public interest aspects.

Increasing the students' awareness of organisations' commitments towards sustainability issues was ranked fourth by the participants in terms of its importance, with a mean value of 4.02. This study contends that students' awareness is essential to produce a better-educated generation of managers (to meet roles 2 and 3 in Table 6.1). This contention is supported by

Chulián (2011) who suggests that accounting students must be aware of the seriousness of decisions they are going to make in future regarding their society and environment. This awareness arises only if the tertiary accounting curriculum includes sustainability education. Chulián (2011) believes that sustainability accounting education underpins the intellectual development of students and that accounting education should not involve only the acquisition of professional skills. It appears that participants ranked the potential roles of sustainability accounting education based on their perceptions on the importance of these roles in society. In other words, the most important role in integrating sustainability education into the accounting curriculum is to bring about better accountability and transparency to a society overall. Thus, participants believe that to fulfil accountability it is necessary to enhance future managers' knowledge and education. This enhancement can be achieved by increasing students' awareness (see role 4 in Table 6.1) because students are the future managers of Jordanian industry.

It is also noted that increasing students' awareness can be achieved only if the remaining roles (5 to 9 in Table 6.1, as ordered according to its importance by participants) are implemented. These roles can be considered as technical roles because they relate to accounting techniques and the accounting curriculum which now needs to consider social and environmental aspects. It can be suggested that implementing roles 5 to 9 in Table 6.1 would bring about the much-needed changes to the traditional accounting techniques and curriculum. The least important role of sustainability accounting education in Jordan as ranked by participants is to support the reputation of Jordanian higher education in the Middle East. This role was ranked as the least important because Jordanian higher education already enjoys a high reputation in the Middle East and the Arab World (World Bank, 2016). Jordan gives especial interest to education. For instance, Jordan's educational spending as a percentage of its GDP is high compared to that of other Middle Eastern countries (World Bank, 2016). Ibanez (2017) reported that three Jordanian universities had recently entered the Times Higher Education World Ranking. It appears that the participants perceived that the reputation of the Jordanian educational system in the Middle East was already established. Another interpretation may be that participants perceive that Jordanian higher education already has a strong reputation because it is controlled centrally by the government.

Significant differences in participants' answers to parts 2-6 of the questionnaire were explored. These differences, where found, distinguish between groups of participants in terms of their

support of a specific key theme in the questionnaire survey. These differences were determined on the basis of four variables: gender, occupation, work experience, and level of education. The relationship between these variables and sustainability has been of some interest in the literature (see, for example, Atakan, Burnaz, & Topcu, 2008). The gender variable can indicate if there are any significant differences between males' and females' perceptions. The occupation variable can distinguish among participants based on their stakeholder grouping. Similarly, the length of working experience and level of education variables can indicate significant differences between highly educated and experienced stakeholders and those with less education and working experience.

Analysis along the participants' gender variable found that approximately 67.5% of participants were males whereas only 32.5% were females. The higher male participation rate in males' responses reflects the fact that the male population rate (51.4%) in Jordan is higher than the female rate (48.6%) (Countrymeters, 2018). All the student participants were drawn from business schools (accounting). According to the Ministry of Higher Education and Scientific Research (2018), out of a total of 11,023 enrolled in business schools in 2017, 4,924 were female. Thus, the rate of enrolled female students was about 44.5% compared to 55.5% for male students. In the researcher's experience, females in the Jordanian context usually target city-based jobs, for instance, jobs in the banking sector. Thus, they prefer to study bank-related disciplines, particularly finance. Accounting jobs are more common in factories which are located outside cities, which could be another reason for the lower female enrolment in accounting. Any random sample, therefore, is expected to include more male participants than females.

To explore significant differences between males' and females' answers to the key themes of the questionnaire survey, the t-test analysis was used. Norman (2010) indicates that t-test analysis is used to determine whether there are any significant differences between the answers of two groups (e.g., males' and females' answers). The t-test consists of the P-value which should be less than the alpha value if there are any significant differences. Alpha value in social science is usually 5% (Norman, 2010). Results of the *t*-test analysis of the significant differences between males' and females' answers in this study show that there are no significant differences in the means of responses for all key themes (parts) of the questionnaire survey because the *P*-value for each part is higher than $\alpha = 5\%$. Table 6.2 shows the results of the t-test analysis.

Table 6.2 Results of T-test Analysis

Key Themes (parts) of Questionnaire Survey	Gender	N	M	SD	T	P-value
Roles of sustainability accounting education in Jordan (part 2)	Male	475	3.88	0.64	-0.390	0.697
	Female	227	3.90	0.64		
Usefulness of sustainability accounting education in Jordan (part 3)	Male	475	3.77	0.63	0.679	0.497
	Female	227	3.74	0.67		
The suitability of sustainability accounting education in addressing the aims of Jordanian higher education (part 4)	Male	475	3.72	0.70	1.213	0.226
	Female	227	3.65	0.77		
Methods of integrating sustainability education into the accounting curriculum (part 5)	Male	475	3.56	0.80	-0.265	0.791
	Female	227	3.58	0.72		
Proposed sustainability accounting topics (part 6)	Male	475	3.78	0.64	0.360	0.719
	Female	227	3.76	0.59		

The absence of significant differences between males' and females' perception towards the importance of and need for sustainability education in the accounting curriculum in Jordan may relate to the fact that Jordanian females and males share an identical cultural background. For example, both genders are raised in the same traditions, receive the same type of education, and have the same job opportunities (Ministry of Higher Education and Scientific Research, 2016; The Royal Hashemite Court, 1952). They all learn together and work together without any discrimination (The Royal Hashemite Court, 1952). Thus, they have the same life experiences and culture, and that minimises the differences in their perception of social phenomena in general.

One-way ANOVA analysis was used to explore significant differences amongst the answers of more than two groups (Norman, 2010) (e.g., the answers of educators, students, industry, government, and the accounting profession). One-way ANOVA consists of the *F*-value, which is the square of the t-test and *Sig.* which should be less than alpha (5%) if there are any significant differences (Norman, 2010). One-way ANOVA analysis confirmed the existence of significant differences in the means of participants' answers about the potential role of sustainability accounting education in Jordan on the basis of their occupations, work experiences, and level of education. Table 6.3 presents the results of the one-way ANOVA and shows that there are significant differences in the means of participants' answers due to their

occupation, work experience, and level of education variables ($F = 14.719, 13.883, 6.030$ respectively, $Sig. = 0.00$).

Table 6.3 Results of One-Way ANOVA Analysis for Means of “The Potential Role of Sustainability Accounting Education in Jordan” by Occupation, Work Experience and Level of Education Variables

Part 2 of Questionnaire Survey	Occupation	N	M	SD	F	Sig.	
Roles of sustainability accounting education in Jordan (part 2)	University educator	157	4.04	0.57	14.719	0.000	
	University student	365	3.74	0.66			
	Accountants in industrial organisations	80	3.98	0.57			
	Government employees	52	4.32	0.63			
	Accountants in accounting associations	48	3.84	0.51			
		Work experience	N	Mean	SD	F	Sig
		No work experience	365	3.74	0.66	13.883	0.000
		Fewer than 5 years	67	3.98	0.60		
		5 to 10 years	146	4.05	0.64		
		More than 10 years	124	4.06	0.51		
		Level of education	N	Mean	SD	F	Sig
		Third-year accounting student	161	3.73	0.68	6.030	0.000
		Fourth-year accounting student	204	3.75	0.64		
		Bachelor’s degree	119	4.03	0.63		
		Master’s degree	49	4.06	0.54		
		Assistant professor	107	4.02	0.63		
		Associate professor	43	4.07	0.44		
		Full professor	15	4.21	0.35		
	CMA	4	3.95	0.50			

Because Sig. (0.000) is less than alpha (5%) significant differences exist. Post hoc analysis was also run to explore where these differences were occurring amongst stakeholders as this difference determines where a comparison between the two groups of stakeholders is applicable. Table 6.4 (next page) shows the post hoc results. These results show that there are significant differences between the groups of students and educators (.030249*), industrial practitioners and students (0.23543*), government employees and educators (0.28169*), students (0.58418*), and industrial practitioners (0.34875*), professional accountants and educators (0.20790*), and government employees (0.48958*). The results presented in Table

6.4 indicate that, on the basis of the significant differences found according to the participants' occupation variable, the government employees are the strongest advocates for the role of sustainability accounting education in Jordan compared to all the remaining groups of participants ($M = 4.32$ compared to $M = 4.04, 3.74, 3.98,$ and 3.84). University accounting students are the least supportive of the role of sustainability accounting education ($M = 3.74$ compared to $M = 4.04, 3.98,$ and 4.32). Moreover, results show that university educators are more convinced of the role of sustainability accounting education than accountants working in accounting associations are ($M = 4.04$ compared to $M = 3.84$).

Table 6.4 Results of Post Hoc Analysis for the Means of "The Potential Role of Sustainability Accounting Education in Jordan" (Part 2) by Occupation Variable

Occupation	Mean (M)	University Educator	University Student	Accountants in Industrial Organisations	Government employees	Accountants in accounting associations
University educator	4.04		0.30249*	0.06706	0.28169*	0.20790*
University student	3.74			0.23543*	0.58418*	0.09459
Accountants in industrial organisations	3.98				0.34875*	0.14083
Government employees	4.32					0.48958*
Accountants in accounting associations	3.84					

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

With regard to the significant differences found on the participants' working experience variable, Table 6.5 shows the post hoc results. The results show that there are significant differences between those who have no work experience and participants whose work experience is fewer than 5 years (0.23530^*), 5 to 10 years (0.31260^*), and more than 10 years (0.32127^*). These results from Table 6.5 indicate that those who have no work experience are the least supportive to the role of sustainability accounting education in Jordan ($M = 3.74$) compared to all the remaining groups of participants who have work experience. Those participants who have no work experience are the third- and fourth-year accounting students. It is also noted that significant differences were not found amongst groups of participants who do have work experience, which indicates that, except for students, all remaining participants regardless of their level of work experience support the role of sustainability accounting education in Jordan in a similar manner.

Table 6.5 Results of Post Hoc Analysis for the Means of “The potential role of sustainability accounting education in Jordan” (Part 2) by Work Experience Variable

Work experience	Mean	No work experience	Fewer than 5 years	5 to 10 years	More than 10 years
No work experience	3.74		0.23530*	0.31260*	0.32127*
Fewer than 5 years	3.98			0.07731	0.08598
5 to 10 years	4.05				0.00867
More than 10 years	4.06				

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

The significant differences found for the participant’s level of education variable are presented in Table 6.6 which shows the related post hoc analysis. These results show that there are significant differences between the third-year students and participants who have a Bachelor’s degree (0.2949*), Master’s degree (0.3281*), participants who are assistant professors (0.2857*), Associate professors (0.34104*), and full professors (0.4822*). In addition, results show significant differences in the answers of the fourth-year students and participants who have a Bachelor’s degree (0.2775*), Master’s degree (0.3106*), participants who are assistant professors (0.2682*), Associate professors (0.3235*), and full professors (0.464*).

Table 6.6 Results of Post Hoc Analysis for the Means of “The Potential Role of Sustainability Accounting Education in Jordan” (Part 2) by the Level of Education Variable

Level of education	Mean	Third-year student	Fourth-year student	Bachelor’s degree	Master’s degree	Assistant professor	Associate professor	Full professor	CMA
Third-year student	3.73		0.017	0.2949*	0.3281*	0.2857*	0.34104*	0.4822*	0.218
Fourth-year student	3.75			0.2775*	0.3106*	0.2682*	0.3235*	0.464*	0.201
Bachelor’s degree	4.03				0.033	0.009	0.046	0.187	0.076
Master’s degree	4.06					0.042	0.012	0.154	0.109
Assistant professor	4.02						0.055	0.196	0.066
Associate professor	4.07							0.141	0.122
Full professor	4.21								0.263
CMA	3.95								

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results in Table 6.6 indicate that accounting students, whether third- or fourth-year students ($M = 3.73$ and 3.75 respectively) are the least supportive to the role of sustainability accounting education in Jordan compared to the remaining groups of participants who have a

university degree. It is also noted that no significant differences were found between those who do have a degree. This finding means that regardless of their level of education all degree-holders support the role of sustainability accounting education in Jordan in a similar manner. The next section discusses the usefulness of sustainability accounting education in Jordan.

6.3 The Usefulness of Sustainability Accounting Education in Jordan

Participants were also asked about the level of importance they attach to 10 different potential benefits of sustainability accounting education in Jordan. The results show that the majority of participants believe that sustainability education will be useful if it is integrated into the accounting curriculum. Approximately 66.44% of participants' answers ranged between 'important' and 'very important', while only 22.45% of participants' chose 'moderately important'. To assess the potential usefulness of sustainability accounting education in Jordan, the means (*M*) and standard deviations (*SD*) of the 702 participants' answers were calculated. Table 6.7 reports on the results.

Table 6.7 Means, Standard Deviations, and Ranking of Sustainability Accounting Education Usefulness in Jordan

Rank	The potential usefulness of sustainability accounting education in Jordan (Part three of the questionnaire survey)	<i>M</i>	<i>SD</i>
1	Increasing understanding of global sustainability issues.	4.08	0.889
2	Enhancing the future sustainability practices of industries.	4.05	0.892
3	Developing the intellectual ability and critical thinking of students.	4.01	0.977
4	Assessing the impact of sustainability reporting practices on corporate performance.	3.85	0.886
5	Helping both government and industry to formulate future effective sustainability policies, guidelines, and strategies in Jordan.	3.72	0.976
6	Underpinning and clarifying the link between sustainability accounting, corporate social responsibility, and corporate governance.	3.69	0.971
7	Explicating the complex process of corporate decision-making regarding the impact of environmental and social sustainability practices and their consequences for the Jordanian industry.	3.61	1.011
8	Promoting transparent sustainability reporting practices for external stakeholders in Jordan.	3.61	0.959
9	Changing the focus of the accounting profession away from financial accounting only and towards the inclusion of nonfinancial accounting.	3.56	1.01
10	Developing a corporate sustainability accounting framework that supports better corporate sustainability practices.	3.45	1.148
Overall mean of total means of answers for the entire part		3.70	0.719

Table 6.7 shows that participants perceive sustainability accounting education as ‘important’ due to its potential usefulness in Jordan (M for the entire part = 3.70). According to the order given by participants, it is noted that they believe that sustainability accounting education is useful because it will help students understand global sustainability issues ($M = 4.08$). The perception is that the understanding of such issues will enrich the knowledge of students to the degree that will enable them to become more responsible towards sustainability issues in the future. Stern (2010) argues that students are future employees and employers who become more responsible and active members of the business realm and the local community if they are taught to understand the challenging issues of today. He stresses that these challenging issues have to include sustainability issues. The findings of the current study reinforce Stern’s (2010) viewpoint where ‘increasing understanding of global sustainability issues’ was ranked first.

Enhancing the future sustainability practices of the industry came in second place in terms of its usefulness according to Jordanian participants ($M = 4.05$). Participants believe that if current accounting students have sufficient sustainability knowledge, they will bring better sustainability practices in future. This finding supports Owen (2008) who argues that integrating sustainability education into the accounting curriculum is beneficial because it will result in accountants’ taking more active roles in measuring corporate sustainability performance as a business practice. However, the impact of education on practices is a critical issue because understanding who impacts on whom is a dilemma i.e., Will education bring better practices or vice versa? Wyness and Dalton (2018) argue for a more transcendent form of accounting education where society will be better served by more sustainable forms of accounting, reporting, and auditing.

Research participants raised the gap between sustainability education and sustainability practices in industry as an issue. Participants in this study (open-ended question of part 7 of the survey) viewed the current lack of sustainability practices in industry as a challenge to integrate sustainability education into the accounting curriculum in Jordan. For instance, different educators (Code Edu.) participating in this study (questionnaire survey, part 7)²¹ stated:

Students would not take sustainability education seriously unless it is mandatory to implement it in industrial organisations. (Edu19)

²¹ Part 7 of the questionnaire survey is an open-ended question and so quotations (findings) related to it are discussed throughout this chapter.

Weak engagement of business entities on CSR practices has negatively contributed to the absence of educational needs of sustainability subjects. (Edu61)

It is difficult to link sustainability education and sustainability practices because organisations do not practise or even believe in sustainability and social responsibility. (Edu67)

Different accountants within the industry (code Ind.) stated that:

IFRS has recommended that sustainability education should be integrated, but it did not ask organisations to implement it. (Ind11)

[There are] no existing markets for sustainability. This affects the future of current students. (Ind17)

Teaching a paper that is not implemented and ignored by most organisations is useless. (Ind21)

Lecturing time is too limited to teach topics that are not implemented in the real world of organisations. (Ind28)

This study found that the lack of sustainability practices was a significant reason for the lack of sustainability education. The study argues that universities should take the lead and start producing new generations of leaders who are aware of the importance of sustainability practices and can sustainably run their organisations in the future.

When asked if sustainability accounting education will develop the intellectual ability and critical thinking of students this statement was ranked as third ($M = 4.01$), arguably in an attempt to refer to the need to create and develop the intellectual ability and critical thinking in universities' accounting students. This possible link to critical thinking can be explained by the argument of Chulián (2011) who emphasises that to make accounting students think about and question what is good or bad for the environment and society, and what is possible or impossible to do for their environment and society, sustainability accounting has to be integrated into the accounting curriculum. Chulián's (2011) argument highlights the importance of developing intellectual ability and critical thinking in students so that they engage with contemporary matters relating to society.

However, developing the students' intellectual ability and critical thinking will require a change to the entire system of universities, not only in the accounting curriculum but also in the pedagogy itself, particularly in developing countries such as Jordan (Al-Hayek & Al-Khasawneh, 2013). Kamayanti, Triyuwono, Irianto, and Mulawarman (2011) found in their study that throughout the 4 years of studying a bachelor degree qualification, because the

focus on teaching is through the use of textbooks, accounting students are repetitively and consciously moulded to a narrow and limited view of what accounting is because of the content in accounting textbooks. One could view this approach as an indoctrination process of teaching.

This study similarly found that Jordan adopts the indoctrination way of teaching accounting by only exposing students merely to what is in the textbooks. This approach has impacted on the way of assessing students' performance. For example, the assessment of university students depends merely on their performance in their exams. Students, therefore, are not asked to work on assignments that develop their independent way of thinking, critical thinking, and their intellectual ability. This point explains the importance of the third statement in Table 6.7 to the participants.

In their responses to statements 4 to 10 ($M = 3.85, 3.72, 3.69, 3.61, 3.61, 3.56, 3.45$ respectively as ranked in Table 6.7) participants highlighted the importance of sustainability education in improving sustainability disclosure in industrial organisations, governmental cooperation with industry, and in changing the focus of traditional accounting. This response signals that participants are aware of the current status of sustainability practices in Jordan. Industrial organisations in Jordan ignore sustainability practices. For example, a study by Hazaima, Low, and Allen (2017) found that most industrial organisations in Jordan were simply repeating their previous reporting period's sustainability disclosure because sustainability sections of annual reports are mandatory but not audited. Moreover, to come up with effective sustainability policies, guidelines, and strategies cooperation between government and industry is required. Jaber et al. (2004) argue that the lack of environmental regulations and legislations in Jordan has led organisations to impact negatively on the local environment. This lack of regulations could be due to a lack of cooperation between the government and industry in Jordan.

According to the participants, sustainability accounting education is useful as it changes the focus of the accounting profession away from merely financial accounting and towards the inclusion of nonfinancial accounting. This change, however, necessitates taking immediate action on accounting curricula to enable educators to equip students with proper knowledge and understanding of their surroundings. Changing the focus of traditional accounting has been the focus of many scholars.

Gray, Amernic, and Craig (2004), Thomson and Bebbington (2005), Gray (2006b), Martin and Steele (2010), and Lozano et al. (2013) have frequently called for sustainability education to be integrated into mainstream financial reporting, management accounting, and auditing courses. Significant differences in participants' perception were also obtained according to their occupation, work experience, and level of education. Table 6.8 shows the one-way ANOVA analysis for part 3 of the questionnaire survey. Table 6.8 confirms the existence of significant differences in participants' perception due to their occupation, working experience, and level of education ($F = 18.573, 22.147, 9.590$ respectively, $Sig = 0.00$). Differences were determined using post hoc analysis.

Table 6.8 Results of One-way ANOVA Analysis for Means of "The Potential Usefulness of Sustainability Accounting Education in Jordan" by Occupation, Work experience, and Level of Education Variables

Part 3	Occupation	N	M	SD	F	Sig	
Integrating sustainability education into the accounting curricula of Jordanian universities is important because it could be useful for stakeholders in Jordan	University Educator	157	3.95	0.47	18.573	0.000	
	University Student	365	3.59	0.66			
	Accountants in Industrial Organisations	80	3.89	0.61			
	Governmental employees	52	4.20	0.61			
	Accountants in accounting associations	48	3.82	0.63			
		Work experience	N	M	SD	F	Sig
		No work experience	365	3.59	0.66	22.147	0.000
		Fewer than 5 years	67	3.82	0.59		
		5 to 10 years	146	3.97	0.56		
		More than 10 years	124	4.01	0.54		
		Level of education	N	Mean	SD	F	Sig
		Third-year accounting student	161	3.59	0.68	9.590	0.000
		Fourth-year accounting student	204	3.59	0.65		
		Bachelor's degree	119	3.94	0.68		
		Master's degree	49	3.98	0.54		
		Assistant professor	107	3.89	0.50		
		Associate professor	43	4.11	0.40		
		Full professor	15	4.00	0.36		
	CMA	4	3.68	0.53			

Table 6.9 shows the places where these differences between groups of participants according to their occupation variable exist. The results in Table 6.9 report that there are significant differences between the groups of educators and both students (0.36274*) and government employees (0.24711*), students and industrial practitioners (0.30245*), government employees (0.60985*), and professional accountants (0.23453*). Significant differences also are found between industrial practitioners and government employees (0.30740*), and between government employees and professional accountants (0.37532*).

Table 6.9 Results of Post Hoc Analysis for the Means of “The Potential Usefulness of Sustainability Accounting Education in Jordan” (Part 3) by Occupation Variable

Occupation	M	University educator	University student	Accountants in industrial organisations	Government employees	Accountants in accounting associations
University educator	3.95		0.36274*	0.06029	0.24711*	0.12821
University student	3.59			0.30245*	0.60985*	0.23453*
Accountants in industrial organisations	3.89				0.30740*	0.06792
Governmental employees	4.20					0.37532*
Accountants in accounting associations	3.82					

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results indicate that, based on the significant differences found according to participants' occupation variable, government employees are the strongest advocates for the potential usefulness of sustainability accounting education in Jordan ($M = 4.20$) compared to the remaining groups of participants. However, it is noticed that there is a high variation amongst government employees' answers ($SD = 0.61$ in Table 6.8). A reason behind this variation could be due to the fact that government employees participating in the study were taken from different ministries, and this means they might have different perceptions due to different work environments. University accounting students are ranked the least supportive with regard to the potential usefulness of sustainability accounting education ($M = 3.59$). Students appear as the least interested group on sustainability issues, and, in comparison, to other groups of participants, they are not motivated to study accounting for sustainability. Students also have the strongest variation in their answers ($SD = 0.66$ in Table 6.8) which shows that they lack knowledge on sustainability accounting education. Consequently, students' willingness to study new papers such as those on sustainability is a significant challenge to educators. One educator said:

Educators are assessed by students who do not like new topics or papers. This assessment is unfortunately important to our academic progress at the workplace (university). Students resist what is new and if they felt bored with the paper, they would fail the educator of this paper. I do believe that this assessment is unfair to educators but it is a university system that we have to deal with. (Edu62, questionnaire survey, part 7)

While the findings reported in Table 6.9 suggest that students are not motivated to study sustainability accounting, students, according to the high mean statistical results, still perceive that sustainability accounting education is important as they ranked all questionnaire parts as important, indicating that they can still be motivated to study this area if encouraged to do so by educators. One student stated:

We would like to know about new areas of study in accounting such as sustainability, but we have been struggling to understand some accounting papers, and we are afraid that sustainability accounting will make our academic performance even worse. (St3, questionnaire survey, part 7)

Students believe that it will be difficult for them to understand sustainability papers due to the lack of qualified educators that can link sustainability education and accounting. One student suggests there is a:

...lack of sufficient educators in Jordan, qualified to teach accounting for sustainability as a specific accounting paper or course. (St14, questionnaire survey, part 7)

With regard to the places of significant differences seen between groups according to their work experience variable, Table 6.10 shows the post hoc results for part 3 of the survey. The results show that significant differences are found between participants who have no work experience and these whose work experience is fewer than 5 years (0.32127*), and between participants whose work experience is fewer than 5 years and these whose work experience is between 5 to 10 years (0.38493*), and these who have more than 10 years of work experience (0.41934*).

Table 6.10 Results of Post Hoc Analysis for the Means of “The Potential Usefulness of Sustainability Accounting Education in Jordan” (Part 3) by Work Experience Variable

Work experience	Mean	No work experience	Fewer than 5 years	5 to 10 years	More than 10 years
No work experience	3.59		0.32127*	0.08598	0.00867
Fewer than 5 years	3.82			0.38493*	0.41934*
5 to 10 years	3.97				0.18176
More than 10 years	4.01				

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$)

These results indicate that the participants whose work experience is fewer than 5 years support the potential usefulness of sustainability accounting education in Jordan more than those who do not have any work experience do ($M = 3.82$ compared to $M = 3.59$). Also, participants with more than 5 years' work experience support the potential usefulness of sustainability accounting education more than do those with less than 5 years' work experience ($M = 3.97$ and $M = 4.01$ compared to $M = 3.82$). It is also noticed that participants with no work experience are from the 'student' stakeholder group and provided the strongest variation in answers ($SD = 0.66$ in Table 6.8). This finding indicates an increasingly positive relationship between the degree of importance attached to the usefulness of sustainability accounting education and participants' number of years spent in the field. Perhaps working people perceive the impact of their practices on their environment and society, and so their recognition of the usefulness of sustainability education as a way to achieve more future sustainable practices increases.

The sites of significant differences were also detected based on participants' level of education variable. Table 6.11 (next page) shows the results of the post hoc analysis for part 3 based on the level of education variable. These results report that significant differences are found between the third-year students and participants who have Bachelor's degree (0.35714*), Master's degree (0.39796*), participants who are assistant professors (0.30868*), associate professors (0.52824*), and full professors (0.41429*). Similarly, differences are found between the fourth-year students and participants who have Bachelor's degree (0.356*), Master's degree (0.396*), participants who are assistant professors (0.307*), associate professors (0.527*), and full professors (0.413*). In addition, the results show that there are significant differences between assistant and associate professors (0.21956*).

These results indicate that accounting students, whether third- or fourth-year students, are the least supportive of the potential usefulness of sustainability accounting education in Jordan when compared to all remaining groups of participants who have an academic degree. It was also noted that significant differences within the groups who have an academic degree were not found, with the exception of assistant professors and associate professors. That finding means that their level of education may not have a serious impact on participants' perception of the potential usefulness of sustainability accounting education in Jordan. However, associate professors ($M = 4.11$) support the usefulness of sustainability accounting education more than assistant professors do ($M = 3.89$). Associate professors perhaps are more engaged in academic research, and so they may be influenced by the sustainability literature.

Table 6.11 Results of Post Hoc Analysis for the Means of “The Potential Usefulness of Sustainability Accounting Education in Jordan” (Part 3) by the Level of Education Variable

Level of education	Mean	Third-year accounting student	Fourth-year accounting student	Bachelor’s degree	Master’s degree	Assistant professor	Associate professor	Full professor	CMA
Third-year accounting student	3.59		0.00105	0.35714*	0.39796*	0.30868*	0.52824*	0.41429*	0.08929
Fourth-year accounting student	3.59			0.356*	0.396*	0.307*	0.527*	0.413*	0.088
Bachelor’s degree	3.94				0.0408	0.04846	0.17110	0.05714	0.26786
Master’s degree	3.98					0.08928	0.13028	-0.01633	0.30867
Assistant professor	3.89						0.21956*	0.10561	0.21939
Associate professor	4.11							0.11395	0.43895
Full professor	4.00								0.32500
CMA	3.68								

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

From the level of education section in Table 6.8 it is also noticed that the variation amongst answers (SD) becomes stronger when the level of education is lower and vice versa. The next section discusses results on the suitability of sustainability accounting education in addressing the aims of Jordanian higher education.

6.4 The Suitability of Sustainability Accounting Education in Addressing the Aims of Jordanian Higher Education

Participants were asked about the level of importance they attach to sustainability accounting education due to its suitability in addressing six different aims of Jordanian higher education (part 4 of the survey). These aims were extracted from the Law of Higher Education and Scientific Research policy document (Ministry of Higher Education and Scientific Research, 2016b). The majority of participants believe that sustainability accounting education will address the aims of Jordanian higher education because 62.3% of participants’ answers ranged between ‘important’ and ‘very important’, while 24.63% of the answers were ‘moderately important’. To explore the most important aims of Jordanian higher education that can be addressed by sustainability accounting education, means (*M*) and standard deviations (*SD*) of the 702 participants’ answers were calculated; these are shown in Table 6.12.

Table 6.12 Means, Standard Deviations and Ranking of “Sustainability Accounting Education Addressing the Aims of Jordanian Higher Education” (Part 4)

Rank	Suitability of sustainability accounting education in addressing the aims of higher education in Jordan (part four of the questionnaire survey)	<i>M</i>	<i>SD</i>
1	Training of qualified human resources, who are specialised in various fields of knowledge, to meet the needs of the community	4.02	0.962
2	Deepening the Islamic faith, its ethics, and spiritual values, and enhancing the sense of national belonging	3.90	0.985
3	Encouraging, supporting, and improving scientific research, especially the applied scientific research aims of community service and development	3.87	1.008
4	Providing an academic, research, psychological and socially supportive environment appropriate for innovation, excellence, and the nurturing of talents	3.61	1.046
5	Increasing interest in Jordan’s national heritage, national culture, and in world cultures, and students’ own general culture	3.48	1.046
6	Contributing to the development of knowledge in the areas of science, literature, the arts, and others	3.34	1.053
Overall mean of total means of answers for the entire part		3.56	0.773

As Table 6.12 shows, participants view sustainability accounting education as ‘important’ due to its suitability to address the aims of Jordanian higher education (*M* for the entire part = 3.56). In terms of its greatest importance participants believe that sustainability accounting education will equip accounting students with sufficient knowledge and prepare them for fulfilling the needs of their community (*M* = 4.02). This aim of higher education can be addressed because participants initially believed that sustainability accounting education will have an important role to play in Jordan through producing a better-educated generation of managers who can lead industries more effectively towards their corporate social responsibilities (see part 2, *M* = 4.1, Table 6.1). This aim is achievable because participants believe that sustainability accounting education will have an important role in equipping future managers (students of today) with sufficient knowledge to prepare and implement sustainability implications plans (see part 2, *M* = 4.06, Table 6.1).

Furthermore, this aim can be addressed because participants are sure that sustainability accounting education will increase students’ awareness of organisation’s commitments towards social and environmental (sustainability) issues (see part 2, *M* = 4.02, Table 6.1). The importance of integrating sustainability education into the accounting curriculum lies in participants’ perception that it provides ways to address the overall aims of Jordanian higher education. Sustainability accounting education will also contribute to deepening the Islamic

faith, ethics, and spiritual values and enhancing the sense of national belonging, according to participants. Participants ranked this aim as second in importance ($M = 3.90$) because sustainability issues have been a focal point in Islam as well as in other religions²² (ECOPEACE/Friends of the Earth Middle East (FoEME), 2014a).

Overall, the results confirm that the integration of sustainability education into the accounting curriculum will address the aims of Jordanian higher education considering the order of level of importance attached to these aims shown in Table 6.12 above. Significant differences in participants' perceptions towards addressing the aims of Jordanian higher education through sustainability accounting education were also found. These differences were determined according to participants' occupation, work experience, and level of education. One-way ANOVA analysis was performed as shown in Table 6.13 (next page). Table 6.13 confirms the existence of significant differences in the means of participants' answers due to their occupation and work experience ($F = 2.500$, and 4.293 respectively, $Sig. = 0.041$ and 0.005 respectively). However, results show that significant differences due to participants' level of education were not found ($F = 1.956$, $Sig. = 0.059 > \alpha = 0.050$). The differences were determined using post hoc analysis.

Table 6.14 (next page) illustrates the differences based on the occupation variable. The results presented in Table 6.14 show significant differences between the groups of educators and students (0.15333^*), and the groups of students and government employees (0.25126^*). These results indicate that both government employees and university educators are greater advocates than students for the importance of sustainability accounting education in addressing the aims of Jordanian higher education ($M = 3.88$ and 3.78 respectively, compared to 3.62). This result was to be expected because the aims of Jordanian higher education can be addressed by sustainability accounting education only if sustainability accounting education has a key role and brings benefits in Jordan. However, the perception of students towards both the role and usefulness of sustainability accounting education in Jordan was the least positive perception compared to that of the remaining groups of participants.

²² See Jordan at a Glance chapter

Table 6.13 Results of One-way ANOVA Analysis for Means of “Sustainability Accounting Education Addressing the Aims of Higher Education in Jordan” by Occupation, Work Experience and Level of Education Variables

Part 4	Occupation	N	Mean (M)	SD	F	Sig
Integrating Sustainability Education into Jordan's accounting curricula is important because it will address the aims of Jordanian higher education	University educator	157	3.78	0.62	2.500	0.041
	University student	365	3.62	0.76		
	Accountants in industrial organisations	80	3.76	0.70		
	Government employees	52	3.88	0.74		
	Accountants in accounting associations	48	3.76	0.71		
	Work experience	N	Mean (M)	SD	F	Sig
	No work experience	365	3.62	0.76	4.293	0.005
	Fewer than 5 years	67	3.63	0.75		
	5 to 10 years	146	3.83	0.67		
	More than 10 years	124	3.82	0.62		
	Level of education	N	Mean (M)	SD	F	Sig
	Third-year accounting student	161	3.61	0.78	1.956	0.059
	Fourth-year accounting student	204	3.64	0.74		
	Bachelor's degree	119	3.79	0.76		
	Master's degree	49	3.78	0.63		
	Assistant professor	107	3.71	0.64		
Associate professor	43	3.97	0.56			
Full professor	15	3.74	0.51			
CMA	4	3.96	0.58			

Table 6.14 Results of Post Hoc Analysis for the Means of “Addressing the Aims of Jordanian Higher Education through Sustainability Accounting Education” (Part 4) by Occupation Variable

Occupation	Mean	University educator	University student	Accountants in industrial organisations	Government employees	Accountants in accounting associations
University educator	3.78		0.15333*	0.01249	0.09793	0.02013
University student	3.62			0.14084	0.25126*	0.13320
Accountants in industrial organisations	3.76				0.11042	0.00764
Governmental employees	3.88					0.11806
Accountants in accounting associations	3.76					

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

Significant differences based on participants' work experiences were also found. Table 6.15 shows the post hoc analysis for part 4 based on the participants' work experience variable. Results show that significant differences are found between participants who have no work experience and those whose experience is between 5 to 10 years (0.20616*) and more than 10 years (0.19346*). These results indicate that participants with 5 or more years' experience ($M = 3.83$, $M = 3.82$) believe that sustainability accounting education will address the aims of Jordanian higher education more than do those who have no work experience ($M = 3.62$) do. The next section discusses the results on the methods of sustainability integration into the accounting curriculum.

Table 6.15 Results of Post Hoc Analysis for the Means of "Addressing the Aims of Jordanian Higher Education through Sustainability Accounting Education" (Part 4) by Work Experience Variable

Work experience	Mean	No work experience	Fewer than 5 years	5 to 10 years	More than 10 years
No work experience	3.62		0.01058	0.20616*	0.19346*
Fewer than 5 years	3.63			0.19558	0.18288
5 to 10 years	3.83				0.01270
More than 10 years	3.82				

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

6.5 Methods of Integrating Sustainability Education into the Accounting Curriculum

Participants in Jordan were also asked about the level of importance they attach to the methods that can be adopted to integrate sustainability education into the accounting curriculum. Six methods were proposed. The methods of integrating sustainability education into the accounting curriculum for this study applied the matrix approach developed by Rusinko (2010b)²³. The majority of participants believe that using one or more of the proposed methods to integrate sustainability education into the accounting curricula in Jordan is important because 58.32% of participants' answers ranged between 'important' and 'very important', while only 22.77% of the answers were 'moderately important'. To explore the most important and appropriate methods of integrating sustainability education into the Jordanian accounting curriculum the means (M) and standard deviations (SD) of the 702 participants' answers were calculated. Table 6.16 presents the results.

²³ Rusinko's approaches of integration (Rusinko's matrix) were discussed in the literature review chapter

Table 6.16 Means, Standard Deviations and Ranking of “Methods Proposed to Integrate Sustainability Education into the Accounting Curricula in Jordan” (Part 5)

Rank	Methods of integrating sustainability education into the accounting curricula (part five of the questionnaire survey)	<i>M</i>	<i>SD</i>
1	Adding sustainability accounting topics to individual accounting paper sessions (e.g., lectures) within the existing accounting curricula structure	3.98	1.043
2	Developing a new <u>compulsory</u> stand-alone paper on sustainability accounting for inclusion in existing accounting curricula	3.90	1.064
3	Implementing a mix of methods 1 and 2 above	3.69	1.092
4	Integrating sustainability education into the curricula of all business disciplines in the form of new papers that all business students would be required to take	3.57	1.064
5	Developing a sustainability specialisation (consisting of more than one paper) to be integrated into accounting curricula	3.35	1.092
6	Integrating sustainability education into all accounting papers in the current accounting curricula	2.94	1.254

According to Table 6.16, participants prefer adding sustainability accounting topics to individual accounting paper sessions (e.g., lectures) within the existing accounting curriculum structure ($M = 3.98$). This approach to integration is called piggybacking, and it is the first approach in Rusinko’s (2010) matrix. In Jordan, the curriculum structure of any social science discipline should consist of 132 credit hours and each course is allocated 3 hours of lectures. It is this factor that arguably influences participants to believe that it is difficult to bring change to the structure of not only the accounting curriculum but also any other university curricula. All curricula in Jordan are standardised and similar in terms of their loads. Therefore, a change in any curriculum’s structure will require a change to all other curricula’s structure²⁴.

Results indicate that participants support the development of a new compulsory stand-alone paper on sustainability accounting for inclusion in the existing accounting curriculum ($M = 3.90$). This is the digging deep approach of Rusinko’s (2010) matrix. It is the second most appropriate method of integration according to participants. Christensen et al. (2007) and Stubbs and Schapper (2012) also support this method of integration. Stand-alone papers provide students with a more comprehensive and detailed explanation of the sustainability concept and its principles. However, adopting the digging deep approach is challenging because the business schools of Jordanian universities lack textbooks on sustainability accounting, particularly in Arabic. As one educator explains:

²⁴ Curricula structure in Jordan was discussed in the country context chapter.

Integrating a paper on sustainability accounting into the accounting curriculum is challenging due to the lack of sufficient textbooks related to accounting for sustainability, particularly in Arabic. (Edu28, questionnaire survey, part 7)

At an institutional level, universities have not taken any steps towards this integration, and so there has been no need for textbooks on sustainability accounting. Nevertheless, textbooks can be adopted (or adapted) from those used in Western universities, and these books can be translated into Arabic.

The importance of adopting both the piggybacking and digging deep approaches in parallel is also confirmed as important by participants because they ranked the option ‘implementing a mix of methods 1 and 2 above’ third in terms of its importance ($M = 3.69$). In other words, participants would like to see the integration of sustainability education into the accounting curriculum through both individual sessions and compulsory sustainability accounting papers. It is also interesting that participants in Jordan think seriously about integrating sustainability education not only in the accounting curriculum but also in the curricula of all business disciplines in the form of new papers that all business students would be required to take ($M = 3.57$).

Results, however, indicate that participants are not motivated to develop a sustainability specialisation to be integrated into the curriculum ($M = 3.35$). This finding is explained by the argument that such a ‘specialisation’ will require a bigger load in the accounting curriculum and a change into the curriculum’s structure itself. Such change might subsequently result in extra mandatory papers leading to higher tuition fees for students. Similarly, participants were neutral towards integrating sustainability education into all accounting papers in the current accounting curriculum. Including sustainability education in all accounting papers may place an overemphasis on it because its inclusion will either increase lecture times or require more lectures than standard to cover sustainability issues in all accounting papers. Participants agreed that the curriculum capacity in Jordan is a challenge. As one educator suggests:

Accounting curriculum is overcrowded, more papers more money to pay by students, and more time to spend by educators, the lecture time is limited. (Edu37, questionnaire survey, part 7)

Thus, the best way to achieve integration according to participants is to replace some existing papers with sustainability accounting papers (digging deep) and/or to add some sustainability topics in some, but not all, existing papers (piggybacking). However, by comparison, a study by Botes et al. (2014) in New Zealand (a developed country) revealed that sustainability education should be integrated in the form of a separate paper as well as in the form of

sustainability topics embedded in all accounting papers. In a country like Jordan where there is almost a complete absence of sustainability education, it is arguably too hard to embed sustainability topics into all existing accounting papers. Significant differences in participants' perceptions of the proposed methods of integration were also found. These differences were determined according to participants' occupation, work experience, and level of education. One-way ANOVA analysis was performed to confirm if these differences exist. Table 6.17 reports on the results of this analysis.

The results in Table 6.17 confirm the existence of significant differences in the means of participants' answers due to their occupation, work experience, and level of education ($F = 16.955, 21.852$ and 9.457 respectively, $Sig. = 0.000$ is less than $\alpha = 0.050$). These differences were determined using post hoc analysis. Table 6.18 reports on the results of the post hoc analysis for part 5 based on the participants' occupation variable. The results show significant differences the groups of students and educators (0.46365^*), industrial practitioners (0.27006^*), government employees (0.62920^*), and professional accountants (0.38881^*). In addition, results show significant differences between the groups of industrial practitioners and government employees (0.35913^*).

Table 6.17 Results of One-way ANOVA Test for Means of "Methods of Integrating Sustainability Education into the Accounting Curricula in Jordan" (Part 5) by Occupation, Work Experience and Level of Education Variables

Part 5	Occupation	N	M	SD	F	Sig	
Methods of integrating sustainability education into Jordan's accounting curriculum	University educator	157	3.82	0.57	16.955	0.000	
	University student	365	3.36	0.81			
	Accountants in industrial organisations	80	3.63	0.72			
	Government employees	52	3.99	0.65			
	Accountants in accounting associations	48	3.75	0.76			
		Work experience	N	M	SD	F	Sig
		No work experience	365	3.36	0.81	21.852	0.000
		Fewer than 5 years	67	3.65	0.71		
		5 to 10 years	146	3.90	0.59		
		More than 10 years	124	3.75	0.69		
		Level of education	N	M	SD	F	Sig
		Third-year accounting student	161	3.30	0.84	9.457	0.000
		Fourth-year accounting student	204	3.41	0.79		
		Bachelor's degree	119	3.72	0.78		
		Master's degree	49	3.88	0.56		
		Assistant professor	107	3.81	0.57		
	Associate professor	43	3.92	0.58			
	Full professor	15	3.72	0.52			
	CMA	4	3.38	1.03			

Table 6.18 Results of Post Hoc Analysis for the Means of “Methods of Integrating Sustainability Education into Jordan’s Accounting Curricula” (Part 5) by Occupation Variable

Occupation	Mean	University educator	University student	Accountants in industrial organisations	Government employees	Accountants in accounting associations
University educator	3.82		0.46365*	0.19359	0.16554	0.07484
University student	3.36			0.27006*	0.62920*	0.38881*
Accountants in industrial organisations	3.63				0.35913*	0.11875
Government employees	3.99					0.24038
Accountants in accounting associations	3.75					

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results indicate that government employees support the adoption of Ruskin’s methods (as ordered in Table 6.16 above) more than accountants within the industry do ($M = 3.99$, compared to 3.63). Although government employees seemed to be the most supportive of the sustainability issue in Jordan, educators pointed out that the government presents a challenge to integrating sustainability education into the accounting curriculum. For example, one educator opined:

Sustainability is not considered by the Higher Education Accreditation Commission (HEAC). Courses included in curricula need to be in line with knowledge fields required by HEAC. HEAC’s framework and required courses now lack any emphasis on sustainability. Thus, universities cannot include it until HEAC changes its requirements. (Edu9, questionnaire survey, part 7)

Accordingly, it can be understood that although individuals in both universities and government recognise the matter of integrating sustainability education into the accounting curriculum as important, this matter needs someone to raise it to the implementation stage. Thus, if a model on sustainability education within the accounting curriculum were to be proposed and accepted by the HEAC, universities could commence teaching sustainability within their curriculum.

Although accountants within the industry have recognised both the important role and the usefulness of sustainability accounting education in Jordan, they seem less motivated to support the proposed methods for its integration. It seems that when it comes to real implementation through methods of integration, accountants within industrial organisations turn out to be less supportive of sustainability accounting education. Accountants working

within industrial organisations have been influenced by the traditional accounting curriculum and taught to appreciate only the profit maximisation (Al-Akra et al., 2009). Therefore, it is difficult to convince them about the need for a change to the traditional accounting curricula although they theoretically are convinced by the importance of sustainability education.

It was also found that compared to educators ($M = 3.82$), accountants within the industry ($M = 3.63$), government employees ($M = 3.99$), and accountants within accounting associations ($M = 3.75$), students ($M = 3.36$) are the most hesitant about integrating sustainability education through one of the proposed methods. Al-Htaybat et al.'s (2018) study on the need to include new technologies in the accounting curriculum similarly found that “while significant changes are expected, participants’ opinions vary regarding the necessity of adjusting the accounting curriculum” (p. 333). With regard to the significant differences found based on participants’ work experience variable, Table 6.19 shows the post hoc analysis for part 5 of the survey. The results of the post hoc show significant differences in answers between participants who have no work experience and those whose work experience is fewer than 5 years (0.29304*), whose work experience is between 5 to 10 years (0.53721*), and participants whose work experience is more than 10 years (0.38478*). The results also show significant differences between participants with fewer than 5 years of experience and those whose experience is from 5 to 10 years (0.24417*).

Table 6.19 Results of Post Hoc Analysis for the Means of “Methods of Integrating Sustainability Education into Jordan’s Accounting Curricula” (Part 5) by Work Experience Variable

Work experience	Mean	No work experience	Fewer than 5 years	5 to 10 years	More than 10 years
No work experience	3.36		0.29304*	0.53721*	0.38478*
Fewer than 5 years	3.65			0.24417*	0.09174
5 to 10 years	3.90				0.15243
More than 10 years	3.75				

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results indicate that participants who have no work experience are the least supportive of the proposed methods of sustainability integration compared to those who have work experience ($M = 3.36$, compared to $M = 3.65$, 3.90 and 3.75 respectively). This finding may reflect the fact that all the participants without work experience are students. Students were the least concerned about the importance of sustainability accounting education in this study, and their lack of work experience could be a reason behind their hesitancy. Moreover, participants with 5 to 10 years work experience ($M = 3.90$) are significantly stronger advocates for the proposed methods than those with fewer than 5 years’ experience ($M = 3.65$). This result may

indicate a positive relationship between participants' work experience and their perception of the methods of integration. This result is also consistent with the results reported in Table 6.10 above. As Table 6.10 shows, participants with longer work experience are more supportive of the usefulness of sustainability accounting education. Therefore, it is expected that they will also be more supportive of the proposed methods of integration. Significant differences in the means for participants' answers were also explored using the level of education variable.

Table 6.20 shows the results of the post hoc analysis for part 5 of the survey in relation to participants' level of education. The results show significant differences between the third-year students and participants who have Bachelor's degree (0.41791*), Master's degree (0.58518*), participants who are assistant professors (0.51391*), associate professors (0.61943*), and full professors (0.42305*). Similarly, differences are found between the fourth-year students and participants who have Bachelor's degree (0.30696*), Master's degree (0.47422*), participants who are assistant professors (0.40295*), and associate professors (0.50847*).

Table 6.20 *Results of Post Hoc Analysis for the Means of "Methods of Integrating Sustainability Education into Jordan's Accounting Curricula" (Part 5) by the Level of Education Variable*

Level of education	Mean	Third-year accounting student	Fourth-year accounting student	Bachelor's degree	Master's degree	Assistant professor	Associate professor	Full professor	CMA
Third-year accounting student	3.30		0.11096	0.41791*	0.58518*	0.51391*	0.61943*	0.42305*	.07583
Fourth-year accounting student	3.41			0.30696*	0.47422*	0.40295*	0.50847*	0.31209	0.03513
Bachelor's degree	3.72				0.16727	0.09600	0.20152	0.00514	0.34209
Master's degree	3.88					0.07127	0.03425	0.16213	0.50935
Assistant professor	3.81						0.10552	0.09086	0.43808
Associate professor	3.92							0.19638	0.54360
Full professor	3.72								0.34722
CMA	3.38								

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results indicate that there are few significant differences in participants' perceptions towards the methods of integration. The minor differences shown between all degree-holders and third- and fourth-year accounting students indicate that they all support the importance of

the proposed methods in a similar manner. The next section discusses the findings relating to sustainability accounting topics.

6.6 Sustainability Accounting Topics Proposed for Integration

To explore what the most important sustainability accounting topics appropriate for integration into the accounting curriculum in Jordan are, 15 different topics on sustainability accounting were proposed to participants. These topics were based on previous literature including Kagawa (2007), Sen et al. (2010), Zulkifli (2011), Pattanayak et al. (2011), Sharma and Kelly (2014), Choubey and Pattanayak (2014), and Al-Htaybat et al. (2018). The majority of participants believe that all the proposed topics are important because 67.78% of participants' answers were either 'important or 'very important, and only 22.40% of the answers were 'moderately important'. To explore the most important topics of sustainability accounting, means (*M*) and standard deviations (*SD*) for the 702 participants' answers were calculated. Table 6.21 shows the results. These show that participants generally view the proposed topics as 'important' because the means for all topics range between 3.44 and 4.1.

Table 6.21 *Means, Standard Deviations and the Ranking of the "Proposed Sustainability Accounting Education Topics" (Part 6)*

Ran k	Proposed sustainability accounting topics (Part six of the questionnaire survey)	M	SD
1	Disclosure of corporate sustainability accounting information	4.10	0.961
2	Sustainability implementations in cost and management accounting	4.03	0.960
3	Role of sustainability accounting information in the decision-making process	3.88	0.901
4	Sustainability accounting implementations in solving global sustainability issues such as environmental degradation	3.88	0.940
5	Principles, guidelines, and regulations relating to corporate sustainability	3.87	0.831
6	Corporate sustainability performance measurement	3.87	0.879
7	The link between sustainability and other related terms such as corporate social responsibility, triple bottom line, and corporate governance	3.84	0.857
8	Sustainability implementations in financial accounting	3.84	0.937
9	Fundamentals and concepts of a corporate sustainability framework	3.84	0.939
10	Accountability and responsibility towards sustainability through spending and commitments	3.84	0.943
11	Theories relevant to corporate sustainability, for example, stakeholder theory and legitimacy theory	3.77	0.876
12	Guiding principles and content elements of integrated reporting (IR) developed by the Association of Chartered Certified Accountants (ACCA). IR aims to value creation beyond financial terms, bringing about more accountability and transparency	3.49	1.034
13	Sustainability audit issues	3.48	1.115
14	Sustainability and taxation issues and pollution allowances	3.48	1.200
15	History and development of the global reporting initiative (GRI) that helps organisations understand and communicate the impact they have on issues such as climate change, human rights, and corruption	3.44	1.027

These topics need to be seriously considered when integrating sustainability education into the accounting curriculum (Kagawa, 2007; Sharma & Kelly, 2014) because they enrich the curriculum with content that helps students understand and be aware of the reality of the serious issues and challenges of sustainability that exist both locally and globally. It seems that the participants ranked all these topics as important because they considered these topics as ways not only to activate the role of sustainability accounting education but also as of benefit to sustainability accounting education in Jordan. Despite the importance attached to all these topics, participants prioritised specific topics. Table 6.21 shows that participants ranked sustainability disclosure highest for consideration in the accounting curriculum ($M = 4.1$) because they are aware of the significant weakness in sustainability and corporate social responsibility disclosures in Jordan (Hazaima et al., 2017). Participants also focused on implementing sustainability into both cost and management accounting ($M = 4.03$). Sustainability implementations are weak and scattered within Jordan's industrial organisations because managerial accountants lack knowledge on sustainability accounting (Rahahleh, 2011; Sharma & Kelly, 2014).

One of the five important most topics according to participants is “sustainability accounting information and its role of decision-making” ($M = 3.88$). Students should understand the value relevance of sustainability accounting information so that they know how to use it in decision-making in future²⁵ (Hahn & Reimsbach, 2014). For instance, De Beer and Friend (2006) argue that through quantifying environmental issues environmental management accounting, for example, facilitates an understanding of the process of decision-making. In line with this idea Schaltegger and Burritt (2010) argue that sustainability accounting systems provide managers with information for decision-making and assessing corporate actions on sustainability issues. Thus, students need to know how to use such information in the interests of their society and environment. Equally, participants also want to see that the accounting curriculum is equipping accounting students with enough knowledge and good examples from around the world about sustainability issues and how these international issues are being solved ($M = 3.88$). Equipping accounting students in this way can be linked to participants' perception towards the usefulness of sustainability accounting education since they agreed that the most important benefit of sustainability accounting education is “increasing students' understanding of global sustainability issues”.

²⁵ The value-relevance of sustainability accounting information was discussed in the literature review chapter

The principles, guidelines, and regulations relating to corporate sustainability are also of much importance ($M = 3.87$) as these will form a solid foundation on which students can go deeper in their curricular studies of sustainability. Corporate sustainability performance measurement was also deemed important ($M = 3.87$). Measuring the performance of sustainability practices can be a sustainability disclosure topic because the disclosure itself is a measurement tool (Joshi & Krishnan, 2010). However, it is surprising that participants perceived topics relating to the Integrated Reporting (IR) ($M = 3.49$) and the Global Reporting Initiative (GRI) ($M = 3.44$) as the least important for consideration in the accounting curricula. Such topics may be too advanced for bachelor-level accounting students in Jordan who lack the basic knowledge of sustainability and related matters; such topics could, however, conceivably be discussed in the accounting curriculum of postgraduate students in Jordan. Significant differences in the means of participants' answers towards the proposed topics of sustainability accounting were also obtained. These differences related to participants' occupation, work experience, and level of education. The results of the one-way ANOVA analysis of part 6 are shown in Table 6.22.

Table 6.22 Results of One-way ANOVA Test for Means of “Sustainability Accounting Topics that could be Integrated into the Accounting Curricula” (Part 6) by Occupation, Work Experience, and Level of Education Variables

Part 6	Occupation	N	M	SD	F	Sig	
Sustainability accounting topics that could be integrated into the accounting curricula	University educator	157	4.01	0.47	23.432	0.000	
	University student	365	3.59	0.62			
	Accountants in industrial organisations	80	3.80	0.57			
	Government employees	52	4.20	0.60			
	Accountants in accounting associations	48	3.93	0.66			
		Work experience	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Sig</i>
		No work experience	365	3.59	0.62	29.431	0.000
		Fewer than 5 years	67	3.77	0.61		
		5 to 10 years	146	4.03	0.55		
		More than 10 years	124	4.03	0.52		
		Level of education	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Sig</i>
		Third-year accounting student	161	3.56	0.65	12.470	0.000
		Fourth-year accounting student	204	3.60	0.60		
		Bachelor's degree	119	3.94	0.65		
		Master's degree	49	4.01	0.56		
		Assistant professor	107	3.92	0.52		
	Associate professor	43	4.18	0.33			
	Full professor	15	4.13	0.33			
	CMA	4	3.57	0.72			

These results confirm the existence of significant differences in the means of the participants' answers. These differences (with *Sig.* = 0.0) are due to participants' occupation ($F = 23.432$), work experience ($F = 29.431$), and level of education ($F = 12.470$). These differences were determined using a post hoc analysis.

Table 6.23 shows the results of the post hoc analysis based on the participants' occupation variable for part 6 of the survey. The results show significant differences between the group of educators and the groups of students (0.42189*), Industrial practitioners (0.20431*), and government employees (0.19620*). The results of the post hoc also show significant differences between the group of students and the groups of industrial practitioners (0.21758*), government employees (0.61809*), and professional accountants (0.34202*). In addition, significant differences are found between the groups of industrial practitioners and government employees (0.40051*), and the groups of government employees and professional accountants (0.27607*).

Table 6.23 *Results of Post Hoc Analysis for the Means of "Sustainability Accounting Topics that could be Integrated into the Accounting Curricula" (Part 6) by Occupation Variable*

Occupation	Mean	University educator	University student	Accountants in industrial organisations	Government employees	Accountants in accounting associations
University educator	4.01		0.42189*	0.20431*	0.19620*	0.07987
University student	3.59			0.21758*	0.61809*	0.34202*
Accountants in industrial organisations	3.80				0.40051*	0.12444
Government employees	4.20					0.27607*
Accountants in accounting associations	3.93					

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results of post hoc indicate that government employees are the strongest advocates for the importance of the proposed topics. As the table shows, the results for the other groups of participants were M for government = 4.20, compared to M for educators = 4.01, M for students = 3.59, M for industry = 3.80, and M for accounting profession = 3.93. Accounting educators come in second place in terms of their support of the importance of the proposed topics of sustainability accounting ($M = 4.01$) and then accountants within accounting associations ($M = 3.93$). Accountants within industrial organisations ranked fourth in terms

of their support ($M = 3.80$) just ahead of students who always seem to appear to be hesitant towards sustainability education ($M = 3.59$).

According to Sharma and Kelly (2014), students are most influenced by traditional compulsory accounting courses such as financial and management accounting. Hazelton and Haigh (2010) argue that students think that financial accounting courses are more relevant to and practical for their future careers. These two arguments can explain the reluctance of accounting students in Jordan to support sustainability accounting education. The Jordanian students have also been influenced by Western financial and management accounting and they do care a lot about the relevance of their study in future job opportunities. Nevertheless, students believe that sustainability is an important matter that needs to be addressed in education including accounting education. Abu-Alruz, Hailat, Al-Jaradat, and Khasawneh (2018) similarly found that students had a positive perception toward sustainability education; however, their sample was taken from the Faculty of Educational Science in one university in Jordan.

The weak supportive perception of accountants in the field of industry could imply a hidden unwillingness on their part for the integration of sustainability education into the accounting curriculum. Although they concurred with the important role and the usefulness of integrating sustainability education into the accounting curriculum, it seems that they are aware of the serious impact on the profit generated by their industrial organisations if sustainability measures were to be incorporated into their business activities. As for students, it seems that students in Jordan need only someone trustworthy and knowledgeable to tell them that sustainability education would not endanger their future job opportunities. That can be done, for example, in cooperation with individuals from top management of big organisations in Jordan such as CEOs. Those individuals can influence students to study sustainability with confidence. While those CEOs may not like to practise sustainability today, they do know that it is the right way to solve many people's problems and they would not mind delivering that view to students as guest speakers in universities.

Hutaibat (2005) and Al-Akra et al. (2009) argue that current accounting practitioners were educated in the traditional accounting curriculum, resulting in their having difficulty understanding and accepting change. Thus, these scholars demonstrate the importance of including sustainability education in the curriculum. The argument from the industrial practitioners participating in this study, however, could be rationalised only through a comparison between them and the other groups of stakeholders because all the participants,

including accountants within industrial organisations, had previously recognised the importance of integrating sustainability education into the accounting curriculum. Recognition of importance, however, needs to be translated into action.

Gray (2013) explains that “what is lacking is an accounting education (and accounting) which is ‘at the service of’ (i.e., functional to) the urgent and important demands of sustainability, which ‘embraces life and death’ issues” (p. 323) because only then can stakeholders address the worsening climate changes and environmental degradation on our planet. Significant differences occurring between groups of participants according to their work experiences were also determined using a post hoc analysis for part 6 of the survey. Table 6.24 shows the results of this analysis. The results show significant differences between participants who have no work experience and those with fewer than 5 years of work experience (0.18340*), 5 to 10 years of experience (0.44484*), and more than 10 years of work experience (0.44328*). In addition, significant differences are found between participants with fewer than 5 years of work experience and those with 5 to 10 years of work experience (0.26144*), and participants with more than 10 years of work experience (0.25988*).

Table 6.24 Results of Post Hoc Analysis for the Means of “Sustainability Accounting Topics that could be Integrated into the Accounting Curricula” (Part 6) by Work Experience Variable

work experience	Mean	No work experience	Fewer than 5 years	5 to 10 years	More than 10 years
No work experience	3.59		0.18340*	0.44484*	0.44328*
Fewer than 5 years	3.77			0.26144*	0.25988*
5 to 10 years	4.03				0.00156
More than 10 years	4.03				

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$).

These results presented in Table 6.24 indicate that those who have no work experience are the least supportive of the adoption of the proposed sustainability accounting topics, when compared with the results for groups who have experience ($M = 3.59$, compared to $M = 3.77$, 4.03 and 4.03). The results also indicate that there could be a positive relationship between work experience (the number of years spent in the field) and the desire to integrate topics on sustainability accounting into the accounting curricula. This relationship may arise because the existing significant differences are in favour of those groups of participants who have more experience than others have. This positive relationship is also consistent with, and as a result of, the positive relations revealed in Table 6.10 (usefulness of sustainability accounting education) and Table 6.19 (methods of integration) shown above.

With regard to the significant differences found along the participants' level of education variable, Table 6.25 shows the results of the post hoc analysis for part 6. The results show significant differences between the third-year students and participants who have Bachelor's degree (0.37104*), Master's degree (0.44827*), participants who are assistant professors (0.35939*), associate professors (0.61432*), and full professors (0.56936*). Similarly, differences are found between the fourth-year students and participants who have Bachelor's degree (0.33207*), Master's degree (0.40930*), participants who are assistant professors (0.32042*), associate professors (0.57535*), and full professors (0.53039*). It is also noticed that significant differences are found between participants who have only the Bachelor's degree and those who are associate professors (0.24328*), participants who are assistant professors and those who are associate professors (0.25493*), and between associate professors and those who have CMA (0.61163*).

Table 6.25 Results of Post Hoc Analysis for the Means of "Sustainability Accounting Topics that could be Integrated into the Accounting Curricula" (Part 6) by the Level of Education Variable

Level of education	Mean	Third-year accounting student	Fourth-year accounting student	Bachelor's degree	Master's degree	Assistant professor	Associate professor	Full professor	CMA
Third-year accounting student	3.56		0.03897	0.37104*	0.44827*	0.35939*	0.61432*	0.56936*	0.00269
Fourth-year accounting student	3.60			0.33207*	0.40930*	0.32042*	0.57535*	0.53039*	0.03627
Bachelor's degree	3.94				0.07723	0.01165	0.24328*	0.19832	0.36835
Master's degree	4.01					0.08888	0.16605	0.12109	0.44558
Assistant professor	3.92						0.25493*	0.20997	0.35670
Associate professor	4.18							0.04496	0.61163*
Full professor	4.13								0.56667
CMA	3.57								

*Differences are statistically significant at the level of significance ($\alpha \leq 0.05$)

These results indicate that participants who do not yet have a degree (third- and fourth-year students) are the most hesitant about accepting the proposed sustainability accounting topics ($M = 3.56$). As discussed before, Sharma and Kelly (2014) argue that students are influenced by traditional compulsory accounting courses. Hazelton and Haigh (2010) argue that students prefer to study financial accounting courses because they think such courses are more relevant

to and practical for their future careers. The results also indicates that associate professors ($M = 4.18$) are more supportive of the proposed topics of sustainability accounting than are participants who have a bachelor's degree ($M = 3.94$), are a PhD assistant professor ($M = 3.92$), or a CMA ($M = 3.57$). It seems that associate professors are the most supportive of the proposed topics of sustainability accounting compared to all other participants because of their academic research engagement. Full professors are also a strong advocate for the proposed sustainability accounting topics. The next section summarises the chapter.

6.7 Summary

Phase one of this study's data collection aimed to explore the perceptions of Jordanian salient stakeholders towards the importance of integrating sustainability education into the accounting curriculum of Jordanian universities. The study measured the importance of integrating sustainability education into the accounting curriculum through a questionnaire survey which asked participants in Jordan about different issues related to its integration. These covered: the potential role of sustainability accounting education in Jordan; the potential usefulness of sustainability accounting education in Jordan; the suitability of sustainability accounting education in addressing the Jordanian aims of higher education; methods that could be used to integrate sustainability education into the accounting curriculum; and, finally important topics that can be integrated into the accounting curriculum. An open-ended question was included so that participants could expand on reasons for supporting or rejecting these ideas, where relevant.

The study's Jordanian participants generally believe that integrating sustainability education into the accounting curriculum is important and agreed that there was a need for sustainability education to be integrated into the accounting curriculum in Jordan. This finding indicated that the current curriculum does not meet the needs of its stakeholders from a sustainability perspective. Participants also agreed that the most important role of sustainability accounting education in Jordan would be to create transparency and greater accountability. The participants believe that incorporating sustainability into accounting education will help Jordan produce a better-educated generation of managers who can lead industries more effectively towards their corporate social responsibility and that sustainability accounting education will equip future managers with the required knowledge to prepare and implement sustainability plans and result in more accountability and transparency.

Participants in Jordan agreed that sustainability accounting education will be useful for current accounting students. They believe that the most important benefit is that sustainability accounting education will help students to understand global sustainability issues. Understanding such issues will enrich the knowledge of students to a degree that makes them more responsible towards sustainability issues in future. Participants also believe that sustainability accounting education is useful because it will enhance the future of sustainability practices within industry. Participants believe that if current accounting students have sufficient sustainability knowledge, they will engage in better sustainability practices in the future. Moreover, participants believe that sustainability accounting education will address the aims of sustainability education. They believe that sustainability accounting education will prepare qualified human resources who are specialised in various fields of knowledge to meet the needs of the community.

Furthermore, participants would like to see sustainability education integrated into the business and accounting curriculum by adding sustainability topics via individual sessions and lectures as well as through developing a new stand-alone compulsory paper. Participants also would like to see sustainability accounting topics that are important to the accounting students such as sustainability disclosure and sustainability implementations in cost and management accounting. The participants' claims which are represented through participants' needs and expectations found by the questionnaire survey are seen by this PhD study as claims that are urgent due to their importance on a Likert Scale. This urgency makes participants salient stakeholders who possess the urgency attribute of the salient stakeholder model.

Despite the consensus amongst participants on the importance of sustainability accounting education, there were significant differences in their perceptions around integrating sustainability education into the Jordanian accounting curriculum. These differences were reflected in the participants' demographics. In all parts of the survey, it was found that Jordan's government employees are the strongest advocates for integration sustainability into accounting education. This finding indicated that the government of Jordan possesses urgent claims for this integration. Accounting students on the other hand are the least supportive of integration. Accounting educators come in second place in terms of their support for the importance of integrating sustainability education into the accounting curriculum.

It was noted that although accountants who work in industry confirmed the important role and usefulness of sustainability accounting education, they were hesitant about the methods and

topics to be integrated into sustainability accounting education. This finding indicated that industry's claim to integrate sustainability education into the accounting curriculum is not urgent as it remains a theoretical claim. It was also found that there may be a positive relationship between the participants' level of work experience and their perception of the importance of sustainability accounting education. It also seems that participants who have postgraduate degrees are stronger advocates for the importance of sustainability accounting education. Participants who have a postgraduate degree are more engaged in research and so might be influenced by sustainability research. The views of practitioners who have a bachelor's degree appeared to be influenced only by the traditional accounting curriculum. Participants mentioned a number of challenges that the integration of sustainability education into the accounting curricula in Jordan might face. These include a lack of sustainability textbooks in Jordan, a lack of qualified educators, curriculum capacity, and the relevance of sustainability to industry.

Overall, these results can be considered as evidence that the current accounting curriculum in Jordan does not meet the needs of Jordanian salient stakeholders. This conclusion indicates that these stakeholders have urgent claims for this integration to happen. However, according to salient stakeholder theory, this integration would require more than simply urgent claims. Salient stakeholders should possess the power and legitimacy to integrate sustainability education into the accounting curriculum (see the theoretical framework chapter).

Therefore, this study proceeded to the second phase in its investigation to see why sustainability accounting education is not adopted in Jordan despite its statistical importance. That phase of this study attempted to investigate the challenges and benefits of integrating sustainability education into the accounting curriculum in Jordan, which, in turn, along with the statistical findings led to the development of a salient stakeholder-driven model of sustainability accounting education in Jordan. The next chapter discusses the interview findings on the challenges of integrating sustainability education into the accounting curriculum in Jordan.

Chapter 7

Interview Findings on the Contextual Challenges of Sustainability Integration into the Jordanian Accounting Curriculum

7.1 Introduction

This chapter presents and discusses the first part of the qualitative findings of this study, and in so doing it addresses the first part of the third research question of this study: i.e., What are the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum? While chapter 7 discusses the challenges of integrating sustainability education into the Jordanian accounting curriculum, the chapter 8 addresses the second part of the third research question regarding the benefits of integrating sustainability education into the Jordanian accounting curriculum. For each of these two chapters, the findings are discussed under the main themes and subthemes related to stakeholders' views. The main themes discussed in this chapter relate to the educational, ideological, governmental, institutional, and social challenges. The chapter concludes with a summary.

7.2 Challenges of Integrating Sustainability into the Jordanian Accounting Curriculum

Stakeholders worldwide have supported sustainability initiatives as a solution to the impact humanity has on the environment, the earth's resources, our overall well-being, progress, and survival (McFarlane & Ogazon, 2011). As a result of stakeholders' pressure on business practitioners, corporate practices have shifted to focusing on environmental issues and sustainability performance evaluation (Rodrigue, Magnan, & Boulianne, 2013). A compelling majority of 93% of CEOs globally believe that sustainability practices are important to the future success of organisations (Hayward et al., 2013). As a result, sustainability accounting is gaining momentum in the business realm (Christ & Burritt, 2013).

Today, sustainability accounting has a vital role to play in creating progressive solutions that support sustainable development (Gray, 2019). The application of sustainability accounting models helps mitigate corporate negative environmental practices (Rodger & George, 2017). Numerous studies have focused on the possible applications of corporate sustainability accounting (see, for example, Burritt, Herzig, Schaltegger, & Viere, 2019; Imoniana, Soares,

& Domingos, 2018; Latan et al., 2018; Lodhia & Hess, 2014; Maas, Schaltegger, & Crutzen, 2016; Qian, Hörisch, & Schaltegger, 2018).

Despite the importance of corporate sustainability practices, sustainability education occupies only a small part of the overall educational curriculum of universities including the curricula for business and accounting disciplines (Barber, Wilson, Venkatachalam, Cleaves, & Garnham, 2014; Khan, 2011). Sustainability knowledge, thoughts, and learning are hardly found across the overall university curriculum (Gusc & van Veen-Dirks, 2017; Khan, 2011; McFarlane & Ogazon, 2011). Higher education institutions have a key role in supporting and promoting sustainability (Findler, Schönherr, Lozano, Reider, & Martinuzzi, 2019; Vaughter, McKenzie, Lidstone, & Wright, 2016). Increasingly, education institutions have been tasked with integrating sustainability education into their curricula (Dmochowski, Garofalo, Fisher, Greene, & Gambogi, 2016; Fakoya, 2015; Lavey, 2019; Martin, 2012; Novo-Corti, Badea, Tirca, & Aceleanu, 2018; Warr Pedersen, Pharo, Peterson, & Clark, 2017; Winfield & Ndlovu, 2019).

However, the integration of sustainability education into the curriculum, particularly the accounting curriculum, is not an easy process (Tingey-Holyoak & Burritt, 2012). Different challenges face the integration of sustainability education into the curriculum. For example, McFarlane and Ogazon (2011) believe that challenges to sustainability education can be classified into natural and socially-imposed challenges. Natural challenges arise due to human nature where people have different and contradictory views about the same phenomenon and this conflict gives rise to ideological challenges. Socially-imposed challenges arise from the society and include institutional challenges, governmental challenges, and social challenges.

Different studies have investigated different challenges to integrating sustainability education into business schools' curricula. For example, Wright and Horst (2013) argue that the main challenge to sustainability education is the ambiguity and complexity of sustainability concepts. Figueredo and Tsarenko (2013) found that higher education institutions lack financial resources and funding to adopt sustainability education and practices. Adams (2013) believes that people in charge are resisting sustainability education and practices because some university stakeholders simply do not want change.

Verhulst and Lambrechts (2015) found that a major challenge to adopting sustainability in higher education institutions is the rigidity of the organisational structure in universities. They argue that the current structure is conservative, traditional, and conventional due to the academics' lack of power to change it. Aleixo et al. (2018) explored barriers and challenges to

sustainability practices in higher education institutions in Portugal. Their study found challenges including competitiveness, the numbers of enrolled students, and issues with the quality and excellence of teaching and researching.

Although the thematic analysis performed in this study has uncovered similar challenges, this study differs from previous studies in that it focuses on a wider group of salient stakeholders. Most other studies have focused on only one or two groups of stakeholders. In addition, none of these prior studies relates to a Middle Eastern country. This study classifies and categorises the challenges obtained from the thematic analysis of the interviewed stakeholders in line with McFarlane and Ogazon's (2011) to educational, ideological, governmental, institutional, and social challenges. Figure 7.1 (next page) shows this classification and categorisation.

The study found that the majority of interviewees believe that the integration of sustainability education into the Jordanian accounting curriculum is challenging due to issues relating to the relatively sustainability's being a new concept; its novelty makes it difficult to teach, and creates issues around teaching and learning pedagogies and assessment, teaching and learning resources, and the overcrowded accounting curriculum. The researcher categorised these challenges under the educational challenges. Moreover, interviewees believe that the link between sustainability and accounting is still unclear, and so the value relevance is lost. This challenge is categorised under the ideological challenges. Furthermore, the majority of interviewees believe that government's dominance and autonomy, and Jordanian bureaucracy impact on decisions made by business schools. These challenges are categorised under the governmental challenges.

The majority of interviewees also believe that other stakeholders' active roles in supporting sustainability education in business schools is a major issue, and is one which has an impact on current business practices on the integration of sustainability education into the accounting curriculum. These issues are categorised under the institutional challenges. Finally, interviewees believe that there is a need for social awareness on sustainability and accountability issues, and these are categorised under the social challenges. The following sections discuss all these challenges.

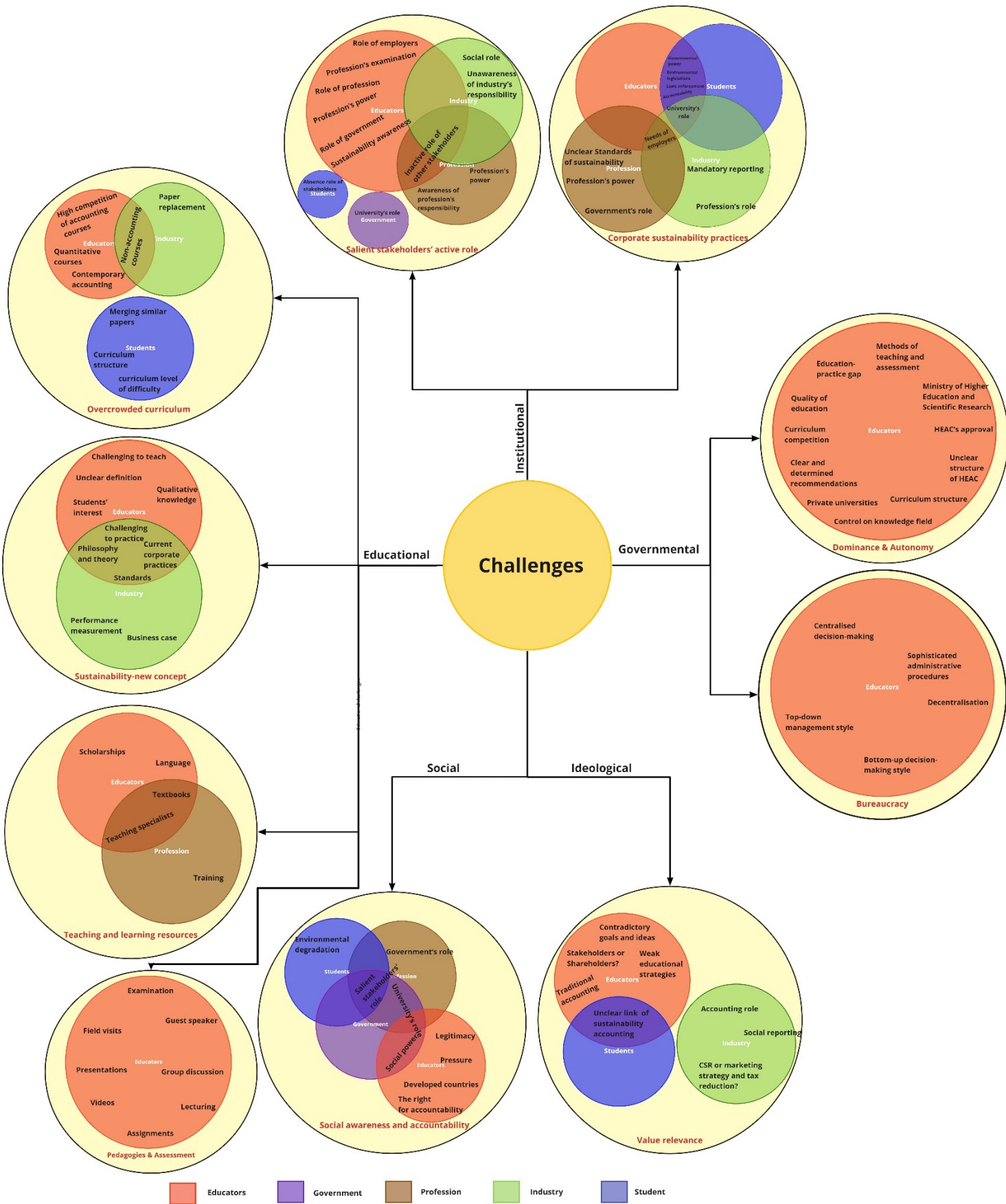


Figure 7.1 Themes and Subthemes that Emerged from the Nvivo Thematic Analysis

7.3 Educational Challenges

Educational challenges are the challenges that take place in the university. University challenges directly impact on the process of integrating sustainability in the business and accounting curricula of Jordanian universities. Different scholars have supported the educational challenges of adopting sustainability education in Jordan and worldwide, for example, Al-Akra et al. (2009), Nassar et al. (2013), and Sharma and Kelly (2014). The most highlighted educational challenges in Jordan in the Nvivo thematic analysis relate to the newness of the concept of sustainability. This newness that makes it difficult to teach, presents challenges relating to sustainability teaching and learning pedagogies and assessment, teaching and learning resources²⁶, and the overcrowded accounting curriculum²⁷.

7.3.1 Sustainability—New Concept, Difficult to Teach: Educators' View

Although sustainability practices and education are not a new phenomenon in developed countries (Du, Bhattacharya, & Sen, 2010; Hilson, 2012; Oeyono, Samy, & Bampton, 2011), sustainability practices and education in developing countries are a relatively new notion (Frank, Robinson, & Olesen, 2011; Galea, 2017). The majority of the interviewed educators find it difficult to teach sustainability because sustainability is a relatively new idea in Jordan, has no clear definition, and its concepts are difficult to understand in the absence of philosophical views. Participant EP18 can be taken as a representative of the educators' view. He explains:

I want to assure that there is no need to make an independent subject about sustainability accounting because sustainability accounting does not have a clear definition and fixed standards that can be taught. There are no accounting processes concerning sustainability accounting, there is not much to be taught regarding the vocational aspect. Sustainability accounting rests mainly on theoretical philosophical views and so it does not need an independent course for a bachelor's level [degree].

It appears that EP18 does not advocate teaching sustainability accounting due to the vague surrounding sustainability practices and the idea that there are no clear definitions or fixed standards for practice. This situation, according to EP18, leaves educators with only theoretical (philosophical) sustainability views to teach bachelor's students, who need to focus on practical

²⁶ Teaching and learning resources are the tools universities should provide to their students to help them achieve their goal of gaining a degree in their disciplines. These resources include teachers, textbooks, classrooms, and the use of internet.

²⁷ The Jordanian accounting curriculum prescribes all courses required for the bachelor's degree including both accounting and nonaccounting courses (e.g., language, military, and other university requirements).

accounting implementations at their level of study rather than on sustainability. Thus, EP18 suggests that sustainability accounting should not to be an independent course in the curriculum. Dahlsrud (2008) argues that sustainability and its related concepts are elusive and difficult to define. McFarlane and Ogazon (2011) believe that sustainability cannot be understood without a firm understanding of the philosophical views that explain sustainability. The majority of interviewed educators are afraid that because of the difficulty of teaching sustainability in the accounting curriculum, students will also find it difficult to understand. EP4 clarifies this point saying:

...the knowledge covered by sustainability accounting topics is the philosophical aspects in accounting science. Students don't have any background about such aspects since it is considered as dark and obscure aspects in bachelor's level [studies].

EP4 explains that sustainability accounting is difficult to teach due to the nature of its topics as these relate mainly to philosophical/theoretical areas. Nevertheless, it appears that this difficulty of teaching sustainability lies only in the difficulty of delivering sustainability knowledge to students who lack knowledge on the philosophical/theoretical issues in accounting. EP4 indicated that this part of knowledge (philosophy/theory) does not exist in the accounting curriculum.

These findings from EP18 and EP4 suggest that Jordanian accounting students today are directed towards being more familiar with practical quantitative knowledge than with philosophy or theory, particularly at the bachelor level in order to prepare them to meet the needs of the market. As a result, most interviewed educators are afraid that students may feel bored if they are exposed to sustainability accounting education because it tends to contain more qualitative than quantitative knowledge. EP1 argues:

We will have to teach theoretical materials based on memorisation. This is very boring for students and abhorrent to our accounting students. From my experience, my students find it easy to learn management accounting but they suffer in the auditing course.

EP1 argues that his accounting students will not want to study sustainability accounting because it is similar to auditing. Unlike management accounting which depends on understanding calculations and numbers, sustainability accounting would require just memorisation. EP1's argument, which is based on his experience, supports the above findings that accounting students lack familiarity with qualitative issues. Thus, EP1 suggests that deviating from the quantitative method of teaching will cause students to become bored. It

appears that if a sustainability accounting course is to be considered for teaching, it should include more quantitative rather than qualitative knowledge. Otherwise, accounting students will lose motivation to learn, if they feel sustainability accounting is a boring course.

In addition, the majority of interviewed educators believe that students' interest in studying sustainability accounting will be minimal if they know that there is a lack of corporate practices and employers are not interested in having graduates equipped with sustainability knowledge and skills. EP4 went on to say:

...here I would like to mention that students must have an effective role in studying sustainability accounting because such [a] course requires an effort in understanding its potential implementations. However, most accounting students at the bachelor's level are trying to obtain their certificates only for graduation purposes. They are not interested in obtaining knowledge if not actually practised in the workplace.

Here EP4 tries to indicate that students are in touch with what is happening in the workplace (e.g., industrial organisations) and that they are aware of their future job requirements, and so they will keep focusing only on such requirements. This finding is in line with MacVaugh and Norton (2012a) who believe that business and accounting students focus on gaining only necessary information that equips them with the necessary knowledge and skills required for the marketplace. Sharma and Kelly (2014) argue that because the marketplace does not require graduates to be equipped with sustainability knowledge and skills, students are discouraged from studying sustainability.

7.3.2 Sustainability—New Concept, Difficult to Teach: Industry's View

Most of the industrial practitioners who participated in this study share a similar view to that of the educators in that they believe that it is difficult to teach sustainability. However, the industry participants suggested that educators will find it difficult to teach sustainability due to the complex implementation of sustainability in the workplace. Participant IP2 can be taken as representative of the industry's view. IP2 states:

There is also a difficulty in the actual application of this material (sustainability accounting), because there are no clear standards to follow; it probably relies on the employers' ability to invent sustainability events since there is no clear way, to my knowledge, to apply sustainability. The same thing will happen I think with teaching sustainability education. Educators can rely on teaching theoretical materials as an alternative but this alone will not help in sustainability practices in companies.

IP2 argues that to teach sustainability accounting effectively educators will need to focus on teaching sustainability accounting implementations in the workplace. IP2 suggests that educators need to show students practical sustainability cases from the Jordan context as using cases facilitates teaching sustainability accounting. However, there is a lack of clear and strong practical cases in Jordan. In signalling to the difficulty of consuming the world's limited resources without endangering the ability of future generations to meet their needs the International Institute for Sustainable Development (2013) underlines the difficulty of implementing corporate sustainability practices worldwide. This difficulty in implementation has led to a lack of practical cases that can be used for teaching in business schools.

IP1 reinforces IP2's argument. He believes that teaching sustainability accounting is difficult due to the complexity of measuring corporate sustainability performance. IP1 stresses:

Numbers, numbers, numbers all what matters when talking about accounting. These numbers are very solid, very accurate. Sustainability information is derived from nonfinancial events which is difficult to treat from an accounting perspective. Sustainability accounting implementation is complex because it is difficult to convert sustainability events to accurate numbers that fit the company's financial statements. This leaves accounting teachers with only one choice which is to teach sustainability in a theoretical way which will not really improve future sustainability practices.

IP1 believes that sustainability accounting is complex because it is difficult to measure sustainability in monetary units which from an accounting perspective can be included in the financial statements of companies. IP1 suggests that this difficulty in measuring sustainability is a major reason behind the lack of practical sustainability cases in the workplace in Jordan, which, in turn, leads to hindrances in teaching sustainability accounting implementation. Consequently, IP1 argues that educators will have to teach sustainability from a theoretical perspective only, which will not be effective in equipping future managers (current students) with the skills needed to improve future sustainability practices.

Nevertheless, one participant from industry offered a different opinion on this subtheme. IP5 recognises the difficulty of teaching sustainability as a new concept; however, he still believes that it is doable because the business case for sustainability in which sustainability events are considered as a source of profit can be taught. In this way, sustainability is easy to treat financially and to teach for accounting students. IP5 suggests:

Over time, this concept (sustainability) evolved to become the business case for sustainability. The idea here is whether sustainability can be used for profit or not. I have recently read a book called 'Making Sustainability Work'. The book contains

essential topics that employ sustainability in a profitable way for companies. It explains how sustainability can be managed to generate profits. Part of this book, I believe, can be taught in the accounting specialisation for undergraduate students; it does not conflict with the goal of accounting which is to create as much profit as possible.

IP5 suggests that despite the lack of practical sustainability cases in the workplace in Jordan, educators still can teach sustainability accounting not only from a theoretical perspective but also by focusing on the business case of sustainability. The business case of sustainability is a matter of sustainability implementation that aims to create profit for businesses. IP5 argues that the business case of sustainability helps facilitate teaching sustainability accounting implementation and helps future managers (current students) implement sustainability to generate profits. IP5 also recommends that educators use the Epstein's (2018) book as a teaching and learning guide to avoid the difficulty of teaching sustainability accounting implementation. The introduction of this book: "Making sustainability work: Best practices in managing and measuring corporate social, environmental, and economic impacts" states:

If you are a corporate leader who is seriously interested in getting your organisation to find, develop, and actually carry out successful programs in the domain of social responsibility—programs that actually improve social and environmental outcomes while building business value for your firm—then you have long needed this book. (Epstein, 2018, p. 13)

The book attempts to create a balance between corporate sustainability performance and financial performance by giving special consideration to the business case for sustainability whereby the company creates a business value and improves its sustainability performance in parallel with it (Epstein, 2018). The book provides excellent examples for teaching how to practise sustainability within organisations, and it contains different practical cases that can also be used in teaching sustainability. Thus, IP5 suggests that the use of this book in Jordanian business schools will facilitate teaching sustainability accounting and help accounting students to see sustainability accounting implementations in the real world of businesses. The book is informative and it does not contain any philosophical issues on sustainability, which makes it easy to teach in the context of Jordan.

7.3.3 Teaching and Learning Pedagogies and Assessments: Educators' View

The majority of educators participating in this study believe that integrating sustainability into the accounting curriculum is challenging because teaching sustainability accounting is not similar to teaching other common accounting papers, especially if the focus of sustainability accounting is on sustainability accounting implementations (not theory). For example, teaching

sustainability accounting requires the use of different teaching and learning pedagogies that enhance students' engagement and understanding of sustainability implementations in accounting. EP10 contends:

I have been teaching accounting for years and I can tell that lecturing is the most important way of teaching. It is the official way of teaching in all our universities as well as in worldwide universities. However, lecturing does not help a lot in the case of sustainability accounting. To avoid [the] complex theory part of sustainability and [to] focus, instead, on sustainability implementations, teaching should include untraditional tools for delivering knowledge. For example, students need to feel and see the implementations of sustainability accounting in the real world instead of reading about these implementations.

EP10 indicates that although lecturing is the official method of knowledge delivery (teaching) in Jordan, sustainability accounting implementations are not a theoretical work that can be simply explained to students in the classroom using only traditional ways of teaching. EP10 suggests the use of new methods of teaching, which can engage the student in sustainability implementations instead of only superficially reading about these implementations. Aarup (2017) argues that sustainability is not a concept that can be separated from students as learners because sustainability engages students and invites them not only to learn differently but also to act differently (Aarup, 2017).

Sustainability accounting education in Jordan is assumed to invite accounting students to actively participate, in a conscious way, in the world around them (Aarup, 2017). EP10 believes in line with Aarup (2017) that accounting students ...*need to feel and see...*, a need which can be met which can be achieved by integrating students' emotions, memories, and personal experiences into the formal learning process. This integration enables students to not only know about sustainability implementations but also to experience them.

Some educators explained this aspect of student engagement further and proposed ways of integrating students' emotions, memories, and personal experiences into the formal learning process. EP16 explains:

It is important that students make at least three field visits to industry during the course period. The importance of such visits lies in creating a permanent feeling about the importance of what students observe. This way students can recognise the work atmosphere and the industries' actual practices.

EP16 explained how teaching methods other than lecturing can help engage students with sustainability implementations. He suggests that students' engagement can be through making field visits to, for example, particular factories to investigate their impacts on the surrounding

environment. In this way students are engaged with the educational process instead of being only knowledge receivers through an indoctrination process of lecturing. Jones, Selby, and Sterling (2010), Ryan and Cotton (2013), and Wyness and Dalton (2018) argue that pedagogies for sustainability education need to be active, real-world-based, collaborative, and critical. Field visits enable students to actively participate, collaborate, analyse, and comment on what they see in the real world of business practices. Field visits as an appropriate pedagogy are supported by Dambudzo (2015) who believes that sustainability concepts have a symbiotic link with the environment, which necessitates that that academic education is not confined strictly to the classroom because, otherwise, it is detached from the environment.

Most of interviewed educators also suggested that the companies visited then become a case study for students to work on. Students, for example, can write a report to assess and critique current corporate practices and explain, instance, potential ways to improve such practices or at least mitigate the bad practices of these organisations. EP18 clarifies this idea:

We also need to show students some examples of sustainability practices or examples of the lack of such practices within companies, for example, asking students to investigate the impact of companies on the River of Jordan and the impact of phosphate companies in Aqaba city on the surrounding environment where the dust levels are increasing because of these phosphate companies.

EP18 indicates that there are various companies that can become good case studies and provide students with actual examples taken from the real business world and that students can investigate and report on their sustainability practices. EP18 refers to the key role of experimental assignments where students are asked to write about their fieldwork experiences from a first-person perspective. Aarup (2017) argues that these types of assignments enhance the interactions between students and the events seen in the field, because they allow students to engage personally with the issues covered and demonstrate that the personal dimension is about not only opinions but also personal involvement in a systematic process. Aarup (2017) argues that, unlike business students' academic research assignments where students' own voices are not required in their writing assignments, these experimental assignments based on field visits build students' confidence to freely critique and express their opinions.

The majority of the interviewed educators also suggested that these case studies can be taken not only from Jordan through field visits but also from around the globe. EP4 says:

I would prefer to show international cases of sustainability accounting to help students gain comprehensive knowledge about the reality of sustainability issues worldwide. Then I can ask them to investigate similar cases in Jordan highlighting

special characteristics of sustainability accounting that may not be found worldwide. This enables students to go deeper in understanding the implementations of sustainability accounting in both the company and its surrounding society.

EP4 suggests that it is better to first present and explain to students most of the well-known sustainability issues worldwide before asking them to investigate the local cases of corporate sustainability practices in Jordan. According to EP10, the use of global case studies as a way of teaching helps students *...feel and see the implementations of sustainability accounting in the real world*. Some educators suggested way to present and explain global case studies to students. EP3, for example, said that sustainability accounting issues can be explained:

...by lecturing as well as presenting videos that interestingly show sustainability issues worldwide and some important industrial cases of multinational organisations. However, using videos is unusual in our universities.

EP3 indicates that educators need to use videos as a teaching method to show students the reality of sustainability issues worldwide, even though videos are an unusual way of teaching in Jordan. Through videos students can visualise and feel the events taking place in international organisations which are usually explained by experts in the field (the presenter in the video). Aarup (2017) argues that this visual simulation sometimes arouses students' imaginations and emotions even more than the field visits where students' focus may be distracted by different unrelated events. EP3 feels that using videos may be an easy and effective way to make students realise how serious sustainability issues worldwide are, because watching videos can take place within the classroom and does not require any extra efforts. Aarup (2017) believes that watching videoed stories about sustainability issues is effective because it serves as an ideal bridge between, for example, the relationship between sustainability, globalisation, consumerism, and poverty).

The majority of the educators who participated in this study also highlighted two different teaching and learning methods that it is important to use in the classroom: group discussion and guest speakers. EP16 and EP1 respectively explain the group discussion importance:

... and so, the teacher urges students to give their opinions about companies' visible and tangible practices and encourages them to support their point of view and argue with other classmates to arrive at the most appropriate solution for the case under investigation.

...it is more appropriate to hold brainstorming sessions and dialogue discussions in which the exchange of views between students and their teachers happens.

EP16 and EP1 indicate group discussion where students are encouraged to discuss sustainability issues with each other to reach to the best ideal solution for the case under investigation is an effective teaching and learning method. MacVaugh and Norton (2012b) believe that the interaction amongst students and that between students and their educator through discussions and arguments made is an active learning process that helps students later critique inappropriate practices in the workplace with confidence and to present good arguments to defend their opinions. The majority of educators in this study also believe that teaching a sustainability accounting course needs guest speakers from industry, the accounting profession, and government to participate in the educational process of teaching and learning. EP19, EP9 and EP6 respectively clarify this idea:

...at least we need to host experts from industry to explain to students about sustainability practices and how they take decisions to make (or not make) a particular sustainability practice.

We can make the lecture more exciting by inviting an expert from the profession and industry to explain some practical aspects of how to implement sustainability accounting in companies.

Employers should also be hired to show students how they (employers) contribute to the field of sustainability. Government representatives from the Ministry of Environment, for example, can also be consulted to talk about the environmental laws required for sustainability in companies.

These interviewees highlighted the importance of guest speakers in bringing the reality of what goes on outside into the classroom by having a representative from an industry, profession, or the government visit the classroom to tell students about sustainability practices. Manalo (2013) argues that inviting guest speakers is an effective strategy because it allows students to learn from someone who has experienced how to be part of the world beyond the classroom. Sustainability education puts business and accounting students a step closer to what is happening in the actual world of business.

On the whole the educators believe that assessing students' performance is challenging, as it should follow the adopted teaching and learning pedagogies and, take the form of both assignments and examinations. EP18 suggests:

Evaluation methods follow teaching methods. The marks should be distributed not only on the tests but also on other student activities. [A] Sufficient portion of the marks must be assigned for students' activities to encourage them to work harder on these activities. This is, however, not allowed as the official evaluation method is only by exams.

EP18 indicates that the assessment of students' performance depends on the tasks they are asked to perform during the study semester as set by the teaching and learning methods. EP18 also believes that as long as examinations are mandatory in all Jordanian universities only a small proportion of the assessment should be assigned to examinations that assess students' performance in the theoretical part of the course. EP18 believes that the largest proportion should be assigned to the different activities students are asked to do during the semester (e.g., preparing reports on field visits, group discussions). Dambudzo (2015) argues that learners' involvement in the fieldwork and participation in the classroom are measurable methods that can achieve the objectives of teaching and learning for sustainable development.

7.3.4 Teaching and Learning Resources: Educators' View

The majority of the participating educators suggest that the lack of teaching and learning resources in Jordan is an important challenge that prevents the integration of sustainability education into the accounting curriculum. EP8 states:

We can't compare Jordan or the Middle East with Australia or New Zealand concerning sustainability accounting. The comparison might be valid regarding what have been taught for the purposes of accounting profession. For instance, all countries teach cost accounting, management accounting, auditing, and other financial accounting courses because these courses are unified in all countries and one book is applicable for teaching in all countries.

EP8 is aware that sustainability accounting issues are a more significant concern in Australia and New Zealand compared to the situation in developing countries where only traditional accounting is taught. Unlike sustainability accounting, traditional accounting courses are identical and not influenced by a country context (except some few courses such as tax accounting). Hence, teaching sustainability accounting in Jordan will need a customised teaching and learning resource that fits the Jordan context (e.g., an Arabic sustainability accounting textbook that includes Jordanian case studies). Nusair (2013) believes that the lack of teaching and learning resources, particularly Arabic textbooks, has led Jordanian universities to adopt English in their teaching because educators have to offer suitable textbooks from Western universities. However, according to EP8, it seems that even with an English textbook on sustainability accounting the issue still exists because the required teaching and learning resource should be influenced by the country context and consider Jordanian case studies as well. McFarlane and Ogazon (2011) argue that teaching sustainability is influenced by its surrounding environment, society, and culture.

Nevertheless, EP5 suggests that a foreign book on sustainability accounting can be modified and translated as an introductory step to having a primary sustainability accounting textbook that is appropriate for the Jordanian context. EP5 suggests:

If we don't have a book on sustainability accounting in Arabic, we still can solve the problem by translating a foreign reference. At least there must be what suits any context to be translated. Later on, we can think of authoring a book on sustainability accounting that includes cases that describe the bad practices of our industry.

It can be interpreted here that the focus, when modifying and translating the book, is on the general concepts of sustainability and its related terms so that the translated book fits a wider context in general including the context of Jordan. Later and based on the translated and modified textbook, EP5 believes that there will be a chance to author an independent Jordanian textbook that addresses the environmental externalities of Jordanian industrial practices from an accounting perspective. According to Nusair (2013) most Jordanian business schools adopt English in their teaching (along with Arabic). This practice perhaps facilitates the process of modifying and customising the needed textbook by basing it on a foreign reference as an initial step in teaching and then authoring an independent one.

In addition to the lack of suitable textbooks on sustainability accounting, the findings on the educators' view show that Jordanian business schools suffer from a lack of trained and specialised educators in sustainability accounting. EP18 clarifies this point when he says:

There must be a specialist for teaching the course (sustainability accounting) as required by the Higher Education Accreditation Commission (HEAC). Consequently, we cannot add the course unless we have at least one teacher specialised in sustainability accounting. I don't think there are sufficient numbers of specialised teachers in sustainability accounting since most of us are specialised in financial and management accounting.

EP18 explains that the existence of specialised educators in sustainability accounting is a government requirement for accrediting sustainability accounting education. Thus, EP18 believes that educators are unable to meet this requirement because most of them are specialists in traditional accounting only. The reason for the lack of specialised educators in Jordan could be due to the university system of sponsoring potential PhD candidates. Hutaibat (2005), Al-Akra et al. (2009) and Khader (2010) believe that accounting education in Jordan is influenced by what is taught in the UK, USA and other Western universities, where most Jordanian accounting educators were awarded their PhDs. Nassar et al. (2013) argue that Jordanian business schools merely translate Western techniques and introduce them into the accounting

curriculum. Teaching sustainability accounting is not sufficiently universal (Sharma & Kelly, 2014) to be an area of interest for Jordanian universities. According to Sharma and Kelly (2015), many accounting educators are not trained to teach and accept sustainability education as part of their responsibilities in the university. This lack of training results in a lack of specialised educators in sustainability accounting not only in Jordan but also worldwide. Therefore, Jordanian business schools, particularly accounting departments, need to reconsider the criteria they follow when a sponsored PhD student's the area of study in accounting when sending accounting students overseas to obtain their doctorates.

7.3.5 Teaching and Learning Resources: Industry's View

The findings on industry's view highlight the lack of specialised educators in sustainability accounting and explain this lack by the absence of sustainability education in the current accounting curriculum. The majority of the participating industrial practitioners suggest that the lack of specialised educators is due to the fact that some areas of study such as sustainability accounting are ignored in the curriculum. IP4 and IP2 respectively explain this idea:

The absence of teaching sustainability accounting so far has led to the lack of academics equipped with knowledge on sustainability accounting to teach the subject. (IP4)

I remember I have never been taught about sustainability matters during my 4 years of studying accounting. That was long time ago; hopefully now teachers are more aware to sustainability terms. At that time all educators were just perfect at teaching financial and management accounting. I don't believe they were, however, able to teach sustainability matters. I know about sustainability accounting because I keep myself updated with every [thing] new in accounting, it is only reading for pleasure. I do believe that universities should consider hiring specialists in teaching sustainability accounting. (IP2)

IP4 and IP2 indicate that the absence of sustainability education in the accounting curriculum has discouraged accounting teachers from specialising in sustainability accounting. IP2 believes that accounting departments in Jordan should start teaching sustainability accounting by hiring specialists. IP2 suggested hiring specialists because he knows that currently there is a lack of specialised educators, and so the findings indicate that hiring specialists can be an immediate solution until accounting departments can prepare the necessary specialised educators in sustainability accounting (e.g., by sponsoring current PhD candidates to specialise in sustainability accounting). Al-Soud, Alifiah, and Al-Soud (2014) and Abu-Alruz et al. (2018) argue that accounting departments in Jordan should start teaching sustainability accounting even though there is a lack of specialised educators. They believe that, as a primary step,

accounting departments can prepare and teach a course on sustainability accounting that includes only general concepts on sustainability and related terms such as CSR.

However, one participating industrial practitioner has a different point of view about the lack of qualified educators. IP1 argues:

Well, I have never studied sustainability accounting or any related terms in the university but I consider myself very successful in my job. I think educators must keep focusing on teaching the accounting as we know, and it is okay if they want to add some extra knowledge with regards to sustainability. This, however, does not require specialised educators because students are expected to be exposed to very superficial and little sustainability knowledge that does not need a specialised educator.

It appears that IP1 is not a supporter of sustainability accounting. In his opinion, accounting education should stay as it is. However, one could query what IP1 means by being *very successful* in his job. IP1 believes he is very successful in his job, although he has never studied sustainability accounting. There may be an implicit suggestion here that his company does not practise sustainability, yet that it too is successful. It appears that the participant is a strong advocate for shareholders' wealth creation. The lack of sustainability practices and the issue of wealth maximisation are discussed later in this chapter. IP1 also believes that even if sustainability education is important, it is never going to be more important than accounting itself (the traditional accounting). He argues that accounting educators need to keep their focus on teaching traditional accounting and simply add in some extra contemporary knowledge such as sustainability accounting.

Thus, IP1 argues that sustainability accounting teaching should be superficial and that it does not require specialist sustainability accounting educators. Notwithstanding this finding, teaching superficially, as suggested by IP1, has been long criticised, because it means that students fail to acquire the required sustainability accounting skills (Kimmel, 1995). Stevenson (2002) and Fleischman and Schuele (2006) believe that having non-specialist educators to teach sustainability accounting will lead these educators to use superficial teaching strategies (knowledge-based nature), which are not effective in skills development. Thus, if there is a decision to adopt sustainability accounting, qualified educators need to be hired, a teaching sustainability superficially has no real value.

7.3.6 Teaching and Learning Resources: Profession's View

Similarly, the majority of participants from the accounting profession in Jordan see the lack of teaching and learning resources as a critical issue as regards integrating sustainability education into the accounting curriculum. PP2 is representative of the profession's view:

There is a lack of textbooks and references that fit the Jordanian context. I don't think that there are many books that are globally related to sustainability accounting. As I indicated before, sustainability accounting constitutes only 2% of the study plans for [an] accounting major in international universities. This means that less than 2% of universities around the world teach sustainability accounting. Consequently, the references are very limited.

PP2 argues that the lack of academic resources on sustainability accounting in Jordan is due to the lack of sustainability accounting teaching worldwide. It seems that PP2 is here attempting to convey an indirect message that the integration of sustainability education into the curriculum is not important, because it is ignored not only in Jordan, but also worldwide. In other words, the adoption of sustainability accounting education does not form an urgent salient stakeholders' claim and it is this which has led to the lack of related academic resources. Bebbington and Thomson (2001), Lozano, Lukman, Lozano, Huisingh, and Lambrechts (2013), and Sharma and Kelly (2014) believe that most business schools are lagging behind in terms of their interest in and support of sustainability education in their curriculum. Instead, these schools have been teaching students that only wealth creation can be recognised as a good business measure (Sharma & Kelly, 2015) and Less than 2% of universities in the USA offer sustainability accounting courses (Wong, Pippin, & Weber, 2016).

PP1 also believes that the universities failure to integrate sustainability in accounting education lies: 1. in their on delivering a traditional accounting curriculum and 2. in the lack of suitable resources, including textbooks and specialised educators. PP1 explains:

I don't think there are enough PhDs specialised in sustainability accounting. Universities send students to get their PhDs in accounting but not in sustainability accounting because they need PhDs who are able to teach most of the existing accounting course.

PP1's viewpoint suggests that Jordanian business schools, including university accounting departments, should instruct and encourage PhDs candidates to specialise in sustainability accounting.

The findings here show that the lack of teaching and learning resources in Jordan is due to the current absence of sustainability accounting education and the business schools' ignorance of adopting sustainability education in Jordan. Gray (2019) argues that accounting education

continues to ignore sustainability, and so the lack of teaching and learning resources is an expected result of this continuing ignorance of sustainability education in the accounting and business curriculum.

Nevertheless, one participant from the profession (PP5) believes that Jordanian universities have the financial capability to hold sustainability accounting training programmes for their academic staff. These courses could, therefore, be a good solution initially, because they would help to close an urgent gap by providing universities with qualified educators. PP5 clarifies this point:

Well, I don't think that we don't have qualified educators for sustainability accounting. Sustainability accounting is just one of the contemporary issues that appear from time to time. I think all that educators need to do is to attend sustainability accounting courses held by international trainers hired by the university management.

PP5 suggests an immediate solution to the lack of specialised educators, i.e., hiring international trainers. As the views of PP1 and PP5 show, it would seem that universities need to follow two paths to bridge the urgent issue of unqualified educators. First, and this is a longer-term initiative, universities need to encourage and support accounting PhD candidates to specialise in sustainability accounting to enable business schools to have specialised educators in the future. Secondly, business schools need to offer sustainability training programmes for current accounting educators to help them teach sustainability accounting. Such training programmes can be supervised by a hired-in international trainer. Jordanian universities already have the financial resources to pay for such programmes. Nearly every university in Jordan has a training centre that offers programmes, specialised courses and training in different subjects (Education Audiovisual and Culture Executive Agency, 2017). Sustainability accounting can be one of these programmes.

7.3.7 Overcrowded Accounting Curriculum: Educators' View

The bachelor's accounting curriculum in Jordan consists of 132 credit hours, which equates to 44 independent papers/courses which students must pass (European Commission, 2012). Fraij (2012) argues that the curriculum is overcrowded, because it consists of many papers that are irrelevant to the accounting major such as languages and military studies. The majority of the participating educators reinforced this view. For instance, EP6 states:

I think there is a problem in the study plan for the accounting major, where the plan contains a lot of subjects that are inappropriate and have no relation to the specialisation of accounting such as languages, national education, military

sciences and others. Of course, we do not deny the importance of such materials as they provide students with general education, but I personally feel that a very large part of the study plan is dedicated to such materials rather than a full focus on accounting as a major.

Accounting educators in Jordan believe that the accounting curriculum is not fully dedicated to meeting the needs of the market and so creates a gap between education and practice. Alia (2014) believes that employers cannot rely on university graduates from Middle Eastern developing countries, because these graduates have not been exposed to the maximum amount of knowledge required in their disciplines. Bataineh (2008) and Abu-Hola and Tareef (2009) investigated the accounting curriculum in Jordan and found that the curriculum needs to be seriously reformed by replacing irrelevant nonaccounting courses with more relevant business and accounting courses. Such reforms, they believe, will help reduce the gap between accounting education and practice and better help to meet employers' needs. One consequence of the existence of irrelevant materials in the accounting curriculum is high competition amongst the important and most relevant accounting papers. EP10 mentions:

I think there are a lot of courses that are no less important than accounting for sustainability. So, I find it necessary to include all important topics including sustainability as a complete and integrated contemporary course in the study plan. The study plan is full of courses and adding more seems impossible without restructuring it. Thus, I suggest that sustainability accounting topics be included into different accounting courses, as this does not impact on the curriculum capacity.

Here EP10 is signalling an issue that is greater than simply integrating sustainability into accounting curriculum. He believes that the current accounting curriculum should be more flexible so that it can encompass not only a course on sustainability accounting, but also all important contemporary accounting courses (e.g., forensic accounting). Abu-Hola and Tareef (2009) and Batarseh (2011) argue that such curriculum flexibility requires an entire curriculum reform. According to Khader (2010), the Jordanian accounting curriculum is overwhelmed with accounting courses that treat only financial and numerical aspects of accounting. Consequently, there is no space for nonfinancial accounting courses to be integrated into the curriculum. A crammed accounting curriculum, nevertheless, is not unique to Jordan. Winfield and Ndlovu (2019) found that Nottingham Business School ignored sustainability education due to its overcrowded curriculum. EP10 also suggests that including sustainability accounting topics in different accounting courses is one way to address the problem, as this approach does not require adding new courses to the curriculum. Rusinko (2010b) supports this method of integration.

Some of the interviewed educators, however, believe that there is a place for sustainability accounting in the accounting curriculum, despite the overcrowding issue. EP19 explains:

We as educators in the Isra University have a subject called Contemporary Issues in Accounting. Sustainability accounting is considered as one of the contemporary issues. I think the aim of the course is appropriate for sustainability accounting. This course, in my opinion, can be directed to focus on sustainability accounting issues.

The Contemporary Issues in Accounting course is a common course in the accounting curriculum in Jordanian universities: it is usually taken in the third year of study. The Isra University describes the course as follows:

This course focuses on the most important current problems which accountants discuss in their studies and researches in an attempt to find suitable solutions and to enable accounting to cope with economic and social developments. Specialised accountants find themselves facing many challenges dictated by tremendous changes in today's world. Within its framework, the course discusses an alternative solution to the ones presented by accountants in order to secure necessary financial information needed for decision makers pertaining [to] each of these problems. (Isra University, 2019, p. 6)

This course could be used to teach the business case for sustainability, as it aims to “secure the financial information needed for decision makers” (Isra University, 2019, p. 6). The business case for sustainability initiatives adopts the shareholder-value perspective which uses strategies that employ sustainability approaches to generate profit (Dhaliwal et al., 2011; Shank et al., 2005). Schaltegger and Burritt (2010) argue that the business case for sustainability acts as a catalyst for corporate sustainability practices. This catalyst suggests that by teaching the business case for sustainability in the Contemporary Issues in Accounting course Jordanian educators have already taken the first step towards including more advanced sustainability accounting in the curriculum. This step should act as a catalyst for corporate sustainability practices in the future for Jordanian businesses.

7.3.8 Overcrowded Accounting Curriculum: Industry's View

In line with the educators' view, most interviewed practitioners believe that the current accounting curriculum is overcrowded with nonaccounting courses. IP2 says:

I remember when I was an accounting student there were so many courses to study and most courses were not from the Accounting Department and not even relevant to accounting. These courses are such as the Military Studies course and Languages.

IP2 indicates that because a large proportion of the accounting curriculum is not dedicated to accounting as a major, the current accounting curriculum needs restructuring. Batarseh (2011) almost a decade ago raised the point that the accounting curriculum in Jordan needed reforms and significant reconsideration of the courses offered. Fraij (2012) argued that such reforms should aim to reduce the gap between the marketplace and accounting education and address contemporary issues in accounting such as sustainability accounting.

However, the practitioners' concern about the overcrowded accounting curriculum centred mainly on the need to bridge the gap between accounting education and the workplace rather than the adoption of sustainability education. IP4 argues:

Well, I would agree that there are too many courses that have nothing to do with accounting. Such courses must be replaced with relevant accounting courses that help graduates succeed in the workplace. I don't think sustainability accounting is more important than any other existing accounting courses, yet it is important... I accept [introducing] a sustainability accounting course to replace one of the obligatory university requirements but not the department's obligatory requirements.

The findings show that a sustainability accounting course is as important as any other existing accounting course and that the accounting curriculum is overcrowded because it contains courses that are not strictly relevant to accounting. Most practitioners would like to see a sustainability accounting course replacing one of the irrelevant courses but not replacing existing accounting courses. Introducing this new course would mean reducing the university's total credit hours requirements and increasing the credit hours of the department's requirements. However, the HEAC (2019) indicates that curriculum restructuring is not allowed, because it is controlled by the government of Jordan (The Ministry of Higher Education and the HEAC). It seems, therefore, that educators lack power to restructure the accounting curriculum.

7.3.9 Overcrowded Accounting Curriculum: Students' View

Accounting students in Jordan face pressures due to the large number of courses they have to pass to complete their degrees in accounting. Most interviewed students believe that the current accounting curriculum cannot be overloaded with any more materials such as sustainability accounting. SP9 can be taken as a representative for the students' view²⁸. SP9 states:

The current structure of the accounting study plan cannot give much attention to sustainability accounting or social responsibility or any other related new courses

²⁸ It is found that students participating in this study lack basic knowledge on the key words of the study including sustainability accounting education. Thus the interviews' questions were simplified and asked in a general way (without changing the purpose behind the questions) to generate any relevant viewpoints.

and topics because our study plan is already full of courses and we are suffering with learning many different things.

The majority of students believe that adding new materials such as sustainability accounting requires reforms to the current accounting curriculum. This view is in line with Batarseh (2011) who believes that the current accounting curriculum in Jordan needs major reforms. However, as the interviewed industrial practitioners noted, a sustainability accounting course can be added to the department's requirements and an irrelevant course can be removed, yet still meet the university requirements overall. Most students were against this suggestion because they believe that the accounting department's requirements are more difficult to meet than the university's or faculty's requirements. Hence, increasing the number of accounting courses for the department's requirements and decreasing the number of courses that meet the university requirements in return would impact negatively on students' overall academic performance. SP6 states:

My friend and I are studying accounting. We have done well in accounting courses but definitely we did much better in the university requirements. We took two Arabic Language courses, two English Language courses about and a course on Military Science. Without these courses we wouldn't be able to get a really high GPA; hopefully, it will not be affected by the remaining accounting courses that we still need to pass.

This extract shows that students tend to believe that replacing a university requirement (any nonaccounting course) with a department requirement (sustainability accounting course) is like replacing something easy with something difficult. Despite such a replacement's being in the interest of students by helping them to succeed in the workplace (as indicated by most interviewed industrial practitioners), students do not welcome the idea of a new course because it might impact negatively on their academic performance.

Nevertheless, one student offered an interesting idea to solve the overcrowded curriculum issue. SP1 suggests:

As for the requirements of the Department of Accounting, we find that some accounting subjects are allocated for a larger number of credit hours. We study the same subject in two parts as two different subjects although it is not. For example, there is Cost Accounting (1) and (2), Auditing Accounting (1) and (2), Principles of Accounting (1) and (2) and Intermediate Accounting (1) and (2). I wonder why we are studying the same subject in two parts (two courses for the same subject). Merging similar subjects together will create a space not only for a sustainability accounting course but also for any contemporary courses the department may like to add. Meanwhile, we (students) are not exposed to a larger number of accounting courses since the new course provided is as a result of the merging process of similar courses.

SP1 here identified a flaw with the core requirements (courses/papers) of the accounting discipline, i.e., the repetition of or overemphasis on important accounting subjects. Courses such as cost accounting are allocated a large number of credit hours and this large allocation reduces the curriculum's capacity to include other important contemporary subjects such as sustainability accounting. In Jordan, most business schools require two courses for the same subject if they feel that the subject is quite important for students (see, for example, Al-Zaytoonah University of Jordan, 2016; Isra University, 2019). However, these pairs of courses for the same subject are not a matter of repetition; rather, they build on each other in terms of their level (one course being more advanced than the other). SP1, who has studied these courses, feels that these courses could be merged to become one new course, thus, saving capacity to include a course on sustainability accounting. The new course should address the objectives of the original courses intensively. This suggestion is supported by the current curriculum design of some Western developed business schools, where it is rare to find more than one course on for example cost and management accounting, intermediate accounting and other accounting subjects. See, for example, The University of Waikato where there is usually only one course per area. The next section discusses the ideological challenges.

7.4 Ideological Challenges

Perhaps one of the main issues that has made sustainability difficult to teach and practise is the ability/inability to link the concepts of accounting and sustainability. Hahn and Reimsbach (2014) refer to this link as the 'value relevance', whereby sustainability's relevance can be clarified through explaining the role of accounting education in supporting sustainability practices. The relationship between sustainability and accounting has been long discussed and viewed from on two, contradictory philosophical perspectives (Freeman, 1984; Friedman, 1970). Creating a balance between these views and making the link between sustainability and accounting has proved challenging when teaching sustainability in the accounting curriculum. A lack of understanding of this linkage may, therefore, lead to the misunderstanding of the value relevance of sustainability and accounting. The following sections explain how salient stakeholders participating in this study view the link between sustainability and accounting.

7.4.1 Sustainability and Accounting—Value Relevance: Educators' View

The majority of the educators in this study believe that it is difficult to understand the link between sustainability and accounting and that explaining and highlighting this link for

students is even more difficult. This difficulty, arises from the contradictory goals set by accounting and sustainability. As EP1 argues:

...sustainability and corporate social responsibility came to contradict the goal of accounting.

EP1 indicates that, whereas accounting's tradition role is to serve only shareholders' interests and maximise shareholders' wealth, sustainability aims to sacrifice part of organisation's profits in the interest of stakeholders, including both environmental and societal stakeholders. Here the educators' view tends to adopt the traditional, old-school view of accounting as presented by Friedman (1970), where maximising the shareholders' wealth is the ultimate goal of corporate practices and, thus, that accounting should only serve as a tool to maximise profit. The majority of the educators also believe that, because sustainability is perceived to be against accounting, adding it to the curriculum will weaken the curriculum and negatively impact on accounting students. EP18 explains:

Replacing one of the mandatory accounting courses with sustainability accounting will weaken accounting students because it is better for these students to learn financial and numeric accounting, instead of learning contradictory ideas such as accounting and sustainability. I believe this relates to philosophical views which cannot be taught for a bachelor's student, it might suit masters' students.

It appears that EP18 is not an advocate to sustainability accounting education in Jordan. EP18 argues that accounting education should not expose students to contradictory ideas such as accounting and sustainability. EP18 also argues that perceiving the value relevance of sustainability and accounting is a matter of philosophy and so does not fit Jordanian bachelor's accounting students. According to Freeman (1984), the concept of sustainability was basically initiated to serve stakeholders more than shareholders, and it is for this reason that some scholars such as McKernan (2007) argues that sustainability goes against accounting or has no relation to it.

Nevertheless, some of the educators have a different idea about the value relevance of accounting and sustainability. They believe that the role of accounting is much bigger than restricting it to serving the shareholders' interests only, and so business schools cannot ignore sustainability education just because of the contradictory issues in understanding how sustainability and accounting can be treated. EP11 mentions:

Well, the issue is in our ability to perceive the link between accounting and sustainability. The link exists, but it is lost because we try to link sustainability to traditional accounting. Sustainability issues cannot be linked to traditional accounting. Accounting today is much different from accounting yesterday, but,

unfortunately, we are still teaching accounting as we know yesterday! Education should be more innovative rather than traditional; we always teach in one direction and if we try to change to the opposite direction we easily get lost!

EP11 suggests that the link between sustainability and accounting is lost because Jordan adopts traditional accounting and practice. EP11 believes that sustainability education cannot be integrated into the accounting curriculum unless business schools change the aim of Jordanian accounting education to focus on stakeholders along with shareholders. EP11 believes that business schools should change the aim of accounting to focus on stakeholders. Gray, Adams, and Owen (2014) support this finding, arguing that the consequences of accounting are by no means simply financial; they are also social and environmental, and extend greatly beyond the traditional boundaries of the accounting entity.

However, EP11 indicates that bringing about a change in focus is not easy, because teaching sustainability will contradict the way accounting has been taught in Jordan up until now. It seems that educators in Jordan are not sure if they can teach contradictory ideas by integrating sustainability into the accounting education, as they are much more familiar with adopting one focus in their teaching (e.g., focusing only on shareholders or stakeholders but not on both at the same time). It seems that the current Jordanian accounting education mirrors Lee's argument (1990). He believes that there is little or no room for teaching contradictions in the classroom as doing so is anathema within professional examination and practice (Lee, 1990). However, avoiding the teaching of contradictory ideas weakens accounting education. Coulson and Thomson (2006) believe that good education should encourage students to encompass contradictory, conflicting ideas and opinions. Thus, accounting education should focus on the link between sustainability and accounting and encourage accounting students to think about this link.

7.4.2 Sustainability and Accounting—Value Relevance: Industry's View

The researcher noted that some industrial practitioners were clearly surprised by the relationship between sustainability and accounting, whereas others indicated that they were fully aware of the nature of this relationship. The majority of the interviewed industrial practitioners believe that if there is to be a link between sustainability and accounting, the link relates only to disclosing corporate social practices and that it was difficult to imagine that accounting can have a role in improving corporate sustainability practices. IP4 argues:

...it is our management's responsibility to practise sustainability in the company. All what we can do is to play a media role by showing these practices to our society

in our annual reports. But only management can decide whether to give, for example, some donation or not; we can show this practice but we cannot do it.

IP4 argues that sustainability practices are confined to CSR practices and that these are decided by the top management in an organisation. IP4 suggests that accountants are only presenters/publishers to these CSR practices in the annual reports. It appears that the majority of industrial practitioners are aware of only the social dimension of sustainability, as they believe that social reporting is the only link between sustainability and accounting. Burritt and Schaltegger (2010) argue that accounting has a key role in social reporting; however, social reporting is not the only link between sustainability and accounting. IP4's viewpoint illustrates that current accountants' knowledge of sustainability matters is basic and not comprehensive, as they perceive only the social dimension of sustainability. Rahahleh (2011) also found that accountants and auditors are both unfamiliar with the implementations of sustainability accounting in Jordanian organisations. Consequently, in Jordan, the findings indicate that the link between sustainability and accounting is unclear for industrial practitioners in the field, because of their lack of knowledge and understanding of the value relevance concept between their current practices and sustainability. For example, IP2 states:

Our company greatly supports sustainability practices. Some of our marketing team visits poor families and supply them with food and other basic needs in monthly basis.

When asked about the way the accounting treat these expenses, he stated:

Well, some of these expenses are classified under marketing and advertisements but the biggest proportion goes under donations so that our taxes are reduced.

IP2's statements suggest that the concepts of sustainability and accounting are linked to more marketing, that is, public relations and tax deductions via donations. Al-Soud et al. (2014) explains that sustainability accounting is not limited to social accounting; rather, they examine business operations in economic, social, and environmental accounting. However, practitioners in Jordan are aware only of the social dimension of sustainability accounting, as the accounting treatment for this social dimension is understood from a marketing or tax accounting perspective and not that of value relevance. This limited view poses an ideological challenge for industrial practitioners' sustainability business practices of.

This corporate ignorance of the environmental dimension of sustainability is supported by Jubarah (2018) and Daas and Alaraj (2019) who found that the sustainability disclosure of the practising Jordanian organisations focuses on the economic and social dimensions of sustainability more than the environmental dimension. Daas and Alaraj (2019) indicate that

this focus on the social dimension brings more reputation to Jordanian organisations than the focus on the environmental dimension. They also explain that a reason for this focus could be that the Jordanian society appreciates activities that have a direct and quick impact on individuals (e.g., donations). However, Abu-Elsamen, Akroush, Asfour, and Al Jabali (2019) found that the environmental awareness of Jordanian companies has positively influenced the purchasing intentions of customers. This finding suggests that industrial practitioners should not ignore the link between accounting and the three dimensions of sustainability (economy, social, and environmental) and should begin to address the value relevance of sustainability and accounting.

7.4.3 Sustainability and Accounting—Value Relevance: Students’ View

Sustainability and related concepts such as CSR use different terminologies from those commonly used in accounting. For example, for Dahlsrud (2008), sustainability is identified through words including, but not limited to, environment, social, life, nature, resources, human and future generations, whereas accounting has completely different terms such as debit and credit, assets, liabilities, financial ratios, inventory, and cost. The majority of participating students highlighted this issue when they were asked about studying sustainability within the accounting curriculum. They found the value relevance link between sustainability and accounting to be unclear. SP11 clarifies this idea:

*I personally cannot see that accounting can mitigate the global warming issue!
What has debit and credit to do with global warming!! These are different terms!
Solving global warming issues is taught somewhere maybe in the faculty of
environment, and here in the business faculty we are taught accounting and finance.*

SP11’s representative viewpoint demonstrates a significant lack of knowledge about the connection between sustainability and accounting. Sharma and Kelly (2014) found a similar lack of knowledge in accounting students in a regional university in New Zealand. It would appear that universities need to provide students with basic courses on sustainability. Similarly, Hahn and Reimsbach (2014) believe that, unlike accounting experts, accounting students cannot acknowledge the value relevance of accounting in providing useful sustainability information due to their lack of basic sustainability knowledge. Mangion (2006) and Zulkifli (2011) argue that teaching sustainability would improve students’ awareness of the importance of sustainability practices in the realm of businesses, and so students would gain a better understanding of the link between sustainability and accounting. The next section discusses the governmental challenges that impact upon the integration of sustainability education into the accounting curriculum.

7.5 Governmental Challenges

The thematic analysis performed in this study shows that only educators have focused on the government as a challenge for sustainability accounting education in Jordan. This is perhaps the case because educators are directly influenced by the government's educational policies in Jordan. Other participating groups of stakeholders are not influenced directly by such policies, and so they might be unaware of such challenges. Another reason might be that other participating groups of stakeholders have a vested interest in the government and so they cannot perceive sustainability as a challenge. For example, the later discussion in chapter 9 concludes that business organisations are benefitting from the way the government controls business and accounting education in Jordan.

Governments can place challenges on the performance of education sectors. These challenges relate to the government's practices of dominance and autonomy through strict control of higher education institutions (Bui et al., 2017). The government's role in the educational programmes has been discussed by different scholars such as Kurland et al. (2010), Tilbury (2011) and Amaral et al. (2013) (see chapter 4 for discussion). In Jordan, the government, represented by the Ministry of Higher Education and Scientific Research, which appoints the Higher Education Accreditation Commission (HEAC), poses an important challenge for the integration of sustainability education into the accounting curriculum. The majority of interviewed educators believe that the government does not allow them to make any changes to the accounting curriculum. In addition, these educators have claimed that bureaucracy has a considerable impact on the process of integrating sustainability education into not only the business curricula, but into the accounting curriculum in particular. The next section discusses the educators' view of the government's dominance and autonomy and bureaucracy.

7.5.1 Dominance and Autonomy

The majority of accounting educators participating in this study believe that a major obstacle with regard to the integration of sustainability education into the accounting curriculum is the Ministry of Higher Education and Scientific Research. The Ministry and its affiliated offices (e.g., the HEAC) have complete control over the way the accounting curriculum is set and designed. As a result, only specific accounting subjects can fit the Ministry's requirements when the curriculum is being updated. EP10 suggests:

Sustainability accounting is a flexible subject that relates to many other accounting subjects and so topics of sustainability accounting can be taught within different subjects not only in a stand-alone course. This way we avoid contradictions with

the HEAC because a stand-alone course requires the HEAC's approval which is very difficult to obtain.

EP10 indicates that it is possible to distribute sustainability accounting topics on different accounting courses, because this method does not require approval from the government (the HEAC). EP19 explains why it is very difficult, however, to make a stand-alone course on sustainability accounting when he says:

A stand-alone course on sustainability accounting is important. However, we cannot make it because it must fit the HEAC's imposed accounting knowledge fields. Four knowledge fields are defined. Within these fields, there are many accounting courses that all universities must abide by in order to obtain the accreditation from the HEAC. Therefore, the accounting mandatory courses are limited to the knowledge fields, which currently do not fit sustainability accounting.

Most educators indicate concern over the dominance and strict governmental control of the accounting curriculum. These educators indicate that this governmental autonomy has prevented business schools from integrating sustainability education into the accounting curriculum, as sustainability education simply does not fit any of the knowledge fields set by the HEAC under the direction of the Ministry of Higher Education. Alexander (2000) argues that governments tend to practise more autonomy and strict control on programmes and budgets of higher education institutions, rather of practising only the usual authoritative oversight.

Private universities²⁹ in Jordan are also not free in their choices of what to add and remove from the accounting curriculum. Private universities' curriculum must follow the curriculum of Jordanian public universities as set by the Ministry of Higher Education, perhaps with minor nuances³⁰ in some optional courses. Here, EP19 goes on to say:

...the study plans of private universities are based on study plans of public universities. For instance, the Higher Education Accreditation Commission (HEAC) forces the Private Isra University to simulate the provided courses of the study plan in the accounting department of the University of Jordan, which is the main public university in Jordan.

University curriculum in Jordan is unified in terms of its structure (Education Audiovisual and Culture Executive Agency, 2017). However, this governmental practice, as explained by EP19, indicates that the government controls the unity of the accounting curriculum not only in terms of the structure, but also the content of the curriculum in all Jordanian universities. The majority

²⁹ Private universities are not funded by the government and so they are supposed to be more independent than public universities.

³⁰ Nuances such as teaching different chapters from those being taught in the same course in a public university, knowing that this course is optional.

of participating educators believe that the governmental practice of unifying the content of accounting curriculum in all universities should be criticised, since it leads to absence of competition, based on curriculum content, among Jordanian universities. EP2 explains:

In Western universities there is high competition among universities and so they do care for developing their curricula so that they attract more students. This is not the case in Jordan as all university curricula are governed by the HEAC.

EP2 argues that competition among universities motivates business schools to continuously update their curriculum to attract potential business and accounting students. EP2 argues that one of the reasons behind the absence of competition among Jordanian universities is the strict government control over universities curricula including the accounting curriculum. This leaves educators powerless to make a change. Bui et al. (2017) argue that competition amongst universities is important, because it puts external pressure on universities to find strategies that provide an innovative curriculum and attract more students. According to the salient stakeholder theory, competition between universities provides urgency to reform their accounting curriculum to remain attractive to students. Bui et al. (2017) believe that the strict governmental control reduces universities' urgency to do so.

The majority of educators participating in this study believe that the Ministry of Higher Education controls teaching methods and assessments too. As a result, these educators are in most cases unable to decide the most suitable way to teach and assess their accounting students.

EP18 states:

Although the Higher Education Accreditation Commission (HEAC) is not actually conversant with the things that are happening between teacher and student, it is the only one that has the right to decide the relation between the student and teacher. It determines teaching and evaluation methods and techniques and even the content of courses that must be taught. This causes a real gap in the learning process, because the HEAC is not giving the opportunity for the accounting departments in universities to decide to adopt some resolutions that we deem appropriate for us. It instead imposes supreme authority.

EP18 suggests that the government should not interfere in the academic relationship between students and their educators as doing so makes educators lose their power to make suitable academic decisions to underpin their academic relationship with students. Hussein (2014) argues that the Ministry of Higher Education (through the HEAC) has absolute authority over the way students and teachers interact with each other. The HEAC is the only party that can provide both public and private universities with accreditations and also withdraw these. The

HEAC sets and evaluates the level of quality of education in Jordan's universities, and, therefore, determines their teaching and assessments methods.

Most participating educators suggest that this governmental dominance and control over the methods of teaching and assessments has influenced the lack of integration of sustainability education into the accounting curriculum. This integration requires not only the HEAC's approval, but also modern teaching and assessments methods other than the 'white board' and 'exams' approach. The HEAC does not permit such methods as primary methods. EP19 indicates:

...the problem lies in the fact that decision-makers are completely convinced that both teacher and student do not need more than classroom, board, and book. They completely abide by the traditional methods in teaching and it is very difficult to convince them to adopt modern methods of teaching and assessments.

EP19 indicates that sustainability accounting education requires innovative methods of teaching and assessments which are not allowed by the government. EP19 argues that educators are powerless to change the traditional methods imposed of them for teaching and assessing accounting students, because of the government's strict control. Petersen (2008) and Painter-Morland et al. (2016) explain that teaching sustainability in the accounting curriculum requires innovative methods such as guest speakers, field visits to industrial organisations, and students' undertaking term-time assignments and case.

Assignments help develop students' critical thinking skills and other skills, for example, writing skills. However, from the researcher's experience in studying and teaching accounting in Jordan, students avoid these assignments if they know that all marks are assigned to only exams as per the HEAC's requirements. Students place their top priority only where marks are assigned, which indicates that students are concerned about their academic performance much more than about real gaining of knowledge and skills for life-learning. Most interviewed educators believe that the government's dominance and unlimited autonomy over the Jordanian education system have influenced the quality of education in Jordan, creating a gap between education and practice. EP6 opined:

I think accounting is generally taught in a very traditional way. There is a big gap between what happens in reality and what is being taught inside the programme. There is no use of modern teaching methods. No technology used, no case studies or assignments in students' evaluation used. From my experience as a previous student and current doctor and practitioner of accounting, the current curriculum does not allow the students to deepen their understanding of the market to cope

with it later after graduation. This is all because of decision-makers who monitor everything. I think we cannot provide sustainability education in a such situation.

Here, EP6 tries to highlight a gap between accounting education and practice that results from the government's strict control over education in Jordan. This control has influenced the level of compatibility between education and practice, which, in turn, has negatively influenced the quality of the education provided. According to Khader (2010), Batarseh (2011) and the World Bank (2017), accounting education in Jordan is irrelevant to business practices. The Ministry of Higher Education should, therefore, reconsider its role in the higher education sector in Jordan. The strict level of governmental dominance and autonomy should be reduced, so that business schools, including accounting departments, have the freedom and autonomy to teach what they perceive to be important and so become part of the world's ranking of top universities globally.

However, a few of the educators believe that, despite the governmental autonomy and control, the Ministry of Higher Education is still flexible and can respond to educators' requests if these requests are clear and specific. These educators believe that the Ministry of Higher Education will respond to any educators' suggestions if these suggestions were raised in a scientific way³¹, not just as a result of a personal wish. EP17 argues:

I know how the Ministry of Higher Education and the HEAC work. The HEAC has responded to many suggestions raised by universities and educators. The curriculum is updated accordingly. The issue is in the approach followed by educators to convince the Ministry of their suggestions. These suggestions must be rational and scientific. I mean the HEAC needs evidence that these suggestions make sense and are important to the specialisation. For example, I recall when academics in universities wanted to add the internal auditing material to the study plan of accounting, in response to activities on the subject carried out throughout scientific conferences and discussions in scientific symposia. Same thing must be done for sustainability accounting to be considered by the HEAC.

A few educators believe that the governmental dominance and autonomy is not the main reason behind the absence of sustainability education in business and accounting schools in Jordan. They argue that accounting educators need to show the importance of integrating sustainability education into the accounting curriculum and the potential benefits³² of this integration. They indicate that the panel of accounting experts formed by the HEAC can then potentially approve

³¹ Educators' request to integrate sustainability into the accounting curriculum should prove its importance in a scientific way through, for example, journal articles, conferences and platforms in Jordan.

³² These benefits were explored in the quantitative findings of chapter 6, and further investigated in the qualitative findings of chapter 8

sustainability education in the Jordanian accounting curriculum. This finding suggests that the government's role is not exercised through full autonomy, as most interviewed educators believe, but rather, that governmental intervention helps to develop the higher education performance in general. Some accounting-focused studies found that governmental intervention in accounting education in South Asian countries is important, despite its autonomy (see for example, Seng, 2009; Yapa, 2003). The governmental dominance and autonomy in Jordan are, however, due to the governmental structure and the way decisions are made. The next section on bureaucracy in Jordan discusses this issue and explores how it may impact on sustainability integration into the accounting curriculum.

7.5.2 Bureaucracy

Integrating sustainability education into the accounting curriculum requires many different administrative procedures to be performed. These procedures consist of, but are not limited to, many approvals from both the university and the government. These procedures and approvals are complex in nature and consume time and effort. Such long procedures demotivate educators from taking more significant steps to integrate sustainability education into their curriculum. EP15 says:

The accounting study plan is updated by the department's committee after considering the instructor's recommendations. This should be also justified and supported with the knowledge fields imposed by the HEAC. I think that there are many procedures to modify the plan which should start from the Department, the College Council and after approving the amendment, it will be raised to the Board of Deans to decide whether to accept it or not.

EP15 explains in the case where the accounting department in a Jordanian university has agreed to adopt sustainability accounting education, the department then has to conduct many different reviews and obtain different approvals from different parties. These parties, according to the Education Audiovisual and Culture Executive Agency (2017), include the Dean of Business Faculty, the Deans Council, the Ministry of Higher Education and the HEAC. All these administrative procedures reflect a centralised style of decision-making which makes modifying the accounting curriculum to include sustainability education difficult and complex.

Denny, Donnelly, McKay, Ponte, and Uetake (2008) believe that bureaucracy in Jordan is common and well-known in all parts of the government, because Jordan in general adopts a centralised style of decision-making which can also result in administrative slackness in performing activities. Unlike the U.S. federal government, where strategic planning occurs within agencies in conjunction with the White House-based planning and budgetary staff, only

the Ministry of Planning in Jordan is responsible for strategic planning (Denny et al., 2008) and reflects top-down management style of decision-making where top management passes decisions to lower levels for implementation. Barsoum and Mryyan (2014) note that the higher education system in Jordan has a highly centralised structure, where the system is centrally governed under the jurisdiction of the Ministry of Higher Education and Scientific Research.

Barsoum and Mryyan (2014) explain that the Ministry's role is to set policies and make decisions relating to all Jordanian universities, including the authorisation for establishing new private universities and new programmes and the allocation of funds among public universities. In addition, all senior appointments in public universities have to be approved by the Ministry through its Higher Education Council; in addition, the Prime Minister also receives nominations for presidents of public universities and confirms the nominations of the presidents of private universities. Hussein (2014) writes that deans of public universities must be approved also by the Ministry through its Higher Education Council. As a result of this bureaucratic structure, all important decisions have to follow the top-down decision-making style where the Ministry of Higher Education makes the decision and passes it down to universities for implementation.

This way of managing the education system has been long criticised. For example, Pascale (1990), Heckscher and Donnellon (1994), and Tsai and Beverton (2007) argue that the top-down style of management promotes a strong inward-looking culture and that it keeps universities away from external realities. Davies (2002) argues that the centralised setting of curriculum and policies symbolises a pressure and strict control on educators. Ungerlieider (1992) argues that the more a school is subject to centrally-mandated changes, the more superficial the changes become. Thus, the top-down decision-making style impacts on the decision to implement sustainability education in accounting and business curriculum. As EP5 explains:

The issue is not only with integrating sustainability into accounting curriculum. Any other changes we try to make will need a really long time to be approved. In most cases, our suggestions are not taken into consideration. Nothing goes smoothly particularly in public universities. We [educators] just apply what they [university management and the Ministry of Higher Education] want. They apply Pharaoh's³³ way as stated in the Quran³⁴ when he said: "...I but point out to you that which I see (myself); nor do I guide you but to the Path of Right!" I think we need to entirely restructure the way of interactions and communications.

³³ Pharaoh is a ruler in ancient Egypt.

³⁴ Reference for full verse: The Quran, q40vs29

EP5 is concerned about the overall way decisions are made in Jordanian universities. He suggests that the needs of educators are not met as a result of the top-down management style of decision-making. Further, EP5 elucidates that the top management's way of treating educators has been likened to the approach of ancient ruler of Egypt³⁵, who simply passed his own decisions to the people for implementation and suggests the same approach is still followed even today. EP5's viewpoint is very concerning, as this implies serious challenges to the integration of sustainability education into the Jordanian accounting curriculum where the country's top-down management style means that educators lack power and legitimacy to make important decisions regarding their urgent claims.

Nor is the matter of centralised decision-making in Jordan restricted to planning issues only. The majority of participating educators believe that bureaucracy in Jordan is found even at an implementation level that does not even require a serious decision-making process. For example, they indicate that sustainability education may require field visits to the industry sector, but that getting permission for these kinds of visits would prove difficult due to the complex administrative procedures. EP19 asserts:

I repeat that there is a real problem concerning the field visits that require obtaining many approvals from the university, such approvals are not only confined to the university because the targeted place to visit [company or factory] will also not welcome the visitors without taking prior consents from the higher administration.

EP19 indicates that the matter of Jordan's centralised decision-making is endemic as most, if not all, decisions require centralised approvals irrespective of whether they are critical or not. Jreisat (1989) and Nonneman (2013) believe that Jordan, as well as other Middle Eastern countries, has advanced through a bureaucratic regime and that even the simplest decisions require centralised approvals from different parties. This view suggests that for Jordan to advance, the country needs to reconsider its decision-making processes at both the planning and implementation levels.

The interview findings on bureaucracy indicated that most participating educators prefer the bottom-up decision-making style. Tsai and Beverton (2007) argue that bottom-up decision-making offers more effectiveness through its flexibility and approachability. Fleurke and Hulst (2006) argue that decentralised administration is more effective and efficient in terms of implementation of benefits and local choices. Levin (2007) also emphasises that, in the higher

³⁵ This is the exegetics of the verse mentioned in the quotation (Ref: The Quran, q40vs29)

education sector, the bottom-up style of decision-making symbolises both the decentralisation of authority and the creation of different committees (e.g., accounting educators in a particular university) which share authority. Levin (2007) further stresses that this style of decision-making leads to better decisions relating to teaching and learning, use of resources and learning outcomes. Davies (2002) believes that decentralisation is a power-sharing model which is essentially democratic in ethos. Stinette (1992) believes that decentralisation helps bring the bottom-up decision-making process closer to educators and students in the learning environment.

Sustainability education requires the engagement of both academic and nonacademic institutions in setting its objectives (Lagos, 2011; Sabri & El-Refae, 2006). Sabri and El-Refae (2006) explain that this engagement requires decentralisation in decision-making, as it appears clearly, for example, in the higher education system in the United Kingdom where universities are autonomous and self-governing bodies and are not owned by the state, although they are government-funded. Each UK university is responsible for the standards and quality of its programmes and has its own internal procedures for obtaining appropriate standards and quality (Quality Assurance Agency for Higher Education, 2019).

Such internal procedures include designing, approving, monitoring, and reviewing programmes of study through a participatory process that includes external examiners, staff and students' feedback, reports from any professional bodies, and employers. This process can result in modifications to the curriculum (Quality Assurance Agency for Higher Education, 2019; Sabri & El-Refae, 2006). Jordanian educators need the same sort of flexibility to integrate sustainability education into the accounting curriculum without any restraints from both the Ministry of Higher Education and the university management. The higher education system in Jordan needs freedom and less bureaucracy in decision-making (Khader, 2010). The next section discusses the institutional challenges that impact upon the integration of sustainability education into the accounting curriculum.

7.6 Institutional Challenges

Integrating sustainability education into the accounting curriculum in Jordan also faces some institutional challenges. Institutional challenges arise from institutions' behaviour. The relevant institutions include universities, business organisations, professional accounting bodies, and the government. The salient stakeholders in this study raised several institutional challenges. These relate to the stakeholders' active role in the integration of sustainability

education into accounting curriculum. There appears to be a significant lack of synergies amongst stakeholders about this integration. Institutional challenges relate also to corporate sustainability practices, including sustainability reporting.

7.6.1 Stakeholders' Active Role: Educators' View

Showing the importance of integrating sustainability education into the accounting curriculum in Jordan requires cooperation from different stakeholders. Each stakeholder i.e., universities, industrial organisations, professional bodies, and the government has a key role to play in ensuring that sustainability accounting is recognised and accredited (Khan, 2011; Ngwakwe, 2012; Schaltegger & Burritt, 2000; Tilbury, 2011). However, the majority of interviewed educators believe that the key role of other stakeholders has been inactive. EP6 clarifies:

...and, so, I can tell that companies, government and the professional body are not helping us in highlighting the need for sustainability accounting implementations and the potential benefits generated from these implementations. I believe that their help will even make the student more interested in studying about sustainability accounting as an integral part of the accounting curriculum.

EP6 highlights the key role of stakeholders in supporting sustainability accounting education in Jordan. The majority of interviewed educators feel that the absence of sustainability education in the accounting curriculum is not their fault. Most educators agreed that they would like to see sustainability education integrated into the accounting curriculum. The educators' stance here is in line with Blanthorne et al. (2007) who found that there is willingness in educators to integrate sustainability education into the business and accounting curriculum. However, the most interviewed educators believe that other stakeholders are not helpful in supporting the issue and do not take an active role on this important issue. These educators also focused specifically on the lack of an active role by the professional body and employers (industrial organisations) in underpinning the importance of sustainability education in business and accounting curriculum in Jordan. EP19 explains:

An important way that we use to update study plans is understanding the demands of the labour market and the profession. For instance, the internal audit course currently becomes one of the important subjects in Jordan due to both its relatedness to CIA and the labour market. Thus, most universities focused on updating their study plans to add such a subject as an independent course.

EP19 suggests that sustainability accounting is not of interest to either the profession or industry in Jordan. For this reason, the majority of the interviewed educators hesitate to support the integration of sustainability education into their accounting curriculum. The profession and industry's lack of interest in sustainability accounting, as suggested by EP19, can be explained

by the literature. For example, Gray and Bebbington (2001), Deegan (2002), Adams, Frost, and Webber (2004), and Sharma and Kelly (2015) argue that accounting practitioners in general have been trained on the traditional accounting curriculum, and so they tend to ignore sustainability practices and education. Hutaibat (2005) and Nassar et al. (2013) believe that Jordanian practitioners have been also trained and educated on the traditional accounting curriculum, which makes them lack interest in sustainability issues. Frank et al. (2011) argue that the profession and business organisations should activate their key roles in supporting sustainability by including materials on sustainability accounting in the proficiency accounting exams such as those of CMA and CPA. Employees too could be encouraged to seek accountants who are trained to deal with sustainability issues.

However, while the majority of interviewed educators feel that the absence of sustainability accounting education is not their fault, some participating educators believe that the educators are not playing an active role in supporting sustainability accounting education in Jordan. These few educators suggest that it is the educators' responsibility to raise awareness in the Jordanian society, including in other stakeholders, towards sustainability education. EP17 opines:

I think it is all our responsibility as accounting educators. If we provide many recommendations about the importance of sustainability accounting, the HEAC will approve this type of education and it will be seriously taken into consideration, especially if the recommendations are made according to high quality research (doctorate level) and from developed countries. We also are the most capable to provide sustainability awareness to society through conducting sustainability research and sponsoring public lectures about sustainability in our lives; let's be honest and confess our shortage in this field.

EP17 argues that educators should activate their key role in supporting the adoption of sustainability accounting education in Jordan. EP17 believes that educators have power and legitimacy to integrate sustainability education into the curriculum and that they can communicate with the HEAC and explain the importance of integrating sustainability education into the accounting curriculum. EP17 argues that, if educators do research on sustainability accounting and show the society the importance of sustainability education, the HEAC will seriously consider it in the accounting curriculum. In other words, EP17 believes that the absence of sustainability accounting education is because it is currently not an urgent claim for educators.

The literature clearly underpins the role of university and educators in showcasing sustainability in business and accounting schools. For example, Sharma and Kelly (2014) believe that tertiary education is not effectively equipping business students with the necessary

sustainability knowledge and skills, despite its key role. Lozano (2007) and Su and Chang (2010) argue that universities need to bring change to their way of thinking and perceiving matters that can help to implement sustainability education into their curricula. Scott et al. (2012) argue that it is necessary to integrate sustainability education in business and accounting curriculum, because universities powerfully influence the ways in which humans think and make decisions. Thus, the Jordanian accounting educators, as an integral part of business schools, can be the start point from which to launch sustainability awareness and research in Jordan by urging the HEAC to include it into the accounting curriculum.

7.6.2 Stakeholders' Active Role: Industry's View

Industry presented a contradictory view to that of the educators. The majority of interviewed industrial practitioners believe that it is not their responsibility to integrate sustainability education into the accounting curriculum. They believe that their role in this area is minor and immaterial. It seems that industrial organisations, particularly employers, are unaware of their role in showcasing sustainability accounting. IP3 argues:

I think it is unfair to say that sustainability accounting is not taught because of us! We do our best to serve the society and environment! We give donations and if needed we can hire people from rural communities. What is needed to know is that we have nothing to do with teaching sustainability accounting. The question, why sustainability education is not integrated, should be forwarded to universities who teach, the profession who sets the professional exams (e.g., JCPA) and the Ministry of Higher Education who confirms and agrees on study plans.

The focus of industry practitioners is again on only the social aspects of sustainability and shows a lack of awareness of the role that the workplace should play in supporting sustainability accounting. Employers should ask for graduates who have some sustainability knowledge and skills if they want to support sustainability accounting at both the education and practice levels. Frank et al. (2011) believe that the growing number of employers who ask for graduates equipped with sustainability knowledge and skills can be a strong indicator of businesses' role in supporting sustainability accounting. However, this is not the case at all in Jordan. IP5, when asked about their role in hiring graduates who have sustainability knowledge, said:

No, this does not make sense to us, when we ask for employees, we ask for accountants who have the degree in accounting to hire but we cannot look at their transcript to see if they got a sustainability accounting course in their bachelor'; this does not make sense to us, and I don't think there will be any organisation interested in the courses given to their employees at a university level as long as these degrees are recognised in Jordan.

IP5 indicates that business organisations in Jordan do not consider sustainability knowledge and skills when recruiting. It is clear that most industrial practitioners are not interested in their role in supporting sustainability education or practices. However, it seems that the majority of industrial practitioners in Jordan do not really understand what sustainability accounting is, because even the donations made by organisations (as discussed before) are not treated from a sustainability accounting perspective but from a tax accounting perspective. Rahahleh and Sharairi (2008) believe that the industrial zones in Jordan have poor, if any, implementations of sustainability accounting, including implementations of environmental management accounting and CSR.

7.6.3 Stakeholders' Active Role: Profession's View

The majority of interviewees from the accounting profession believe that stakeholders such as universities and industrial organisations in Jordan do not play their role in showing the importance of teaching and practising sustainability accounting. This viewpoint contrasts with educators' and industrial practitioners' views, which indicate that they have done their best on the sustainability issue. Unlike educators and industrial practitioners, the participants from the accounting profession do not deny their important role in supporting sustainability accounting. Participants from the accounting profession agree that they are not supporting the issue of sustainability accounting throughout their practices. PP2 suggests:

...yes, even the global professional accounting bodies including the big auditing companies do not require their members to take an interest in sustainability accounting. We (local profession) in Jordan have to follow the global profession. Sustainability accounting does not occur within what has been vocationally taught in universities nor exist within our professional examination like the JCPA and CMA. If the big auditing companies are not responsible for observing corporate sustainability practices then why should companies worry about such practices?!

PP2 indicates that business schools as well as business organisations in Jordan lack interest in sustainability accounting, because the Jordanian (local) accounting profession does not require them to adopt sustainability. PP2 also explains that the Jordanian accounting profession is unable to make decisions regarding sustainability education or practices, because it has to follow the standards of the global profession, which do not require sustainability practices (e.g., GAAP, IFRS). It seems that the accounting profession is an isolated body in Jordan that has no power to influence corporate sustainability practices or accounting education. It appears that the Jordanian profession's lack of power to regulate corporate sustainability practices is due to its inability to gain legitimacy from the global profession. For example, imposing a new

sustainability accounting standard and including it to the IFRS, so that it becomes obligatory for all organisations to follow it would overcome this problem.

It also appears that the profession's lack of power has also led to a lack of interest in the profession as regards playing an external guidance role in the accounting education by, for example, accrediting some accounting courses and participating in setting the accounting curriculum objectives. This lack of interest can be explained by the governmental challenges (see above) where it is found that the Ministry of Higher Education alone controls the curriculum through the HEAC. As a result, it seems that as long as the current accounting education is able to meet the need of businesses to have accounting graduates able to work according to the current profession's standards including the GAAP and the IFRS, the Jordanian accounting profession's claims to include sustainability education into the accounting curriculum are not urgent.

The literature, however highlights, the key role of accounting professions in supporting sustainability accounting education and corporate sustainability practices. For example, Greenwood, Suddaby, and Hinings (2002) argue that professional accounting bodies can create legitimacy for corporate practices throughout the profession's standards and regulations. Humphrey et al. (1996) argue that professional accounting bodies should have a powerful impact on showing the importance of sustainability accounting and that they can be a significant barrier to the development of sustainability accounting. Humphrey et al. (1996) and Tingey-Holyoak and Burritt (2009) suggest that the powerful impact of professional accounting bodies may lie in their active, key role in accrediting sustainability accounting courses and determining the core and appropriate courses in accounting education. These legitimisation processes, if undertaken in Jordan by the accounting profession, can activate the integration of sustainability education into the accounting curriculum.

7.6.4 Stakeholders' Active Role: Government's View

The interviewees from the Ministry of Higher Education and Scientific Research believe that integrating sustainability education into the business and accounting curriculum requires recommendations from university accounting educators. They indicate that it is the role of educators to provide the HEAC with the important materials to be included in the curriculum. Participant GP2 can be taken as a representative of the government's view. GP2 explains:

...such integration will require an approval from the HEAC. We do not remember that we have been asked to integrate sustainability issues into the accounting

curriculum or any other curriculum. I think the shortage initially comes from universities since these universities should communicate with us and tell us what they want to add; we as the Ministry of Higher Education do not object to any of the new materials to be integrated if these new materials fit with the discipline's knowledge fields.

GP2 indicates that integrating sustainability education into the accounting curriculum is the decision of accounting educators and not the government. This viewpoint completely contradicts the educators' viewpoint discussed under the governmental challenges above, where it was found that the government strictly controls the accounting curriculum. The interviewees from the Ministry and the HEAC argue that the Ministry's role is confined to getting a panel of accounting experts taken from different universities to agree on what is being proposed for integration. GP5, who has a senior position in the HEAC, states:

I have been a person in charge in the HEAC and I can tell that adding sustainability education to the study plan is not our responsibility. We form a panel of accounting experts to determine the important materials to be involved in the bachelor's study plan of accounting as well as the knowledge fields of accounting as a major.

He continued:

This panel consists of expert accounting educators taken from different main universities in Jordan and they themselves determine the appropriate knowledge fields for the accounting discipline. All universities then follow these knowledge fields in setting their accounting courses in the study plan. Yes, the integration of sustainability requires our approval as the HEAC, but this approval is given if the representatives from the accounting educators approve this integration.

However, the panel GP5 refers to is formed by just one person and for a particular purpose only; it is, therefore, not a permanent panel. GP5 added:

...the panel is formed only when needed. I call the well-known accounting educators and ask them to be members of the panel. This can be a random selection so that we are more reliable and trustable. Those members of the panel are trusted people and they know how to modify the accounting curriculum, and what to add and remove from it.

GP5 argues that integrating sustainability education into the accounting curriculum is not the responsibility of the government (HEAC). He explains that the HEAC forms a panel of accounting educators to decide what to include in the accounting curriculum, and the HEAC approves the panel's decision only as an authoritative party. In other words, GP5 attempts to indicate that the government is not controlling accounting education in Jordan. Rather, it is the panel of accounting educators which controls the accounting curriculum, and so, if accounting educators want to add sustainability education into the accounting curriculum, the panel should

recognise the educators' willingness and make the integration. However, GP5 indicates that he selects and calls educators he believes to be suitable to form the panel. GP5, therefore, claims that the process of selecting accounting educators to form the panel is purely random.

It appears that the HEAC controls accounting education because the HEAC is the only party responsible for forming the small panel of accounting educators who determine the accounting curriculum content in all Jordanian universities. It appears that these educators do not represent the large number of accounting educators in all Jordanian universities. The government's strategy of forming a panel of educators to determine the accounting curriculum content should be critiqued, because it has led the majority of accounting educators' losing power and legitimacy to make academic decisions. The panel referred to and formed by GP5 can be considered to be a government body and not a universities' body. Ngo (2014) argues that if governments play a definitive role in higher education, all the panels formed by it are actually an integral part of the government's body, even if they operate from outside government buildings (e.g., from a university campus).

7.6.5 Stakeholders' Active Role: Students' View

The students' view on stakeholders' role was limited, as not many responses were provided. Unlike the educators' response which is specific and based on long experience, the students' response was generalised due to their lack of knowledge and experience of sustainability accounting. Nevertheless, it can be understood from students' responses that most of them confirm the absence of all stakeholders' active role in the area of sustainability's integration into the curriculum. SP7 opines:

Jordan has, unfortunately, a deep history of environmental ignorance; we all can see this everywhere! Nobody is caring for environmental issues or the standards of living in our society, but I'm not sure if accounting has something to do with this.

SP7 is aware of the social and environmental issues in Jordan. It appears that SP7 refers perhaps to the official parties in Jordan by saying *nobody is caring*, which can include the government, business organisations, professional bodies and universities. It appears that the majority of interviewed accounting students believe that Jordanian stakeholders are not actively playing their key role in supporting sustainability education and practice. SP7 also indicates that he is unaware of the role of accounting in addressing environmental and social issues. This finding reveals that sustainability accounting education does not exist in Jordan. A study by the World Bank (2010) shows that Jordan's long ignorance of sustainability issues has led to unaffordable environmental consequences.

The majority of interviewed students, when asked about their role in integrating sustainability education into the accounting curriculum, indicate that this integration is not their responsibility.

SP10 comments:

I'm in my fourth year of study. I have never been asked to give my opinion about the study plan. In some few courses we were asked to evaluate our teachers at the end of the semester but never asked to comment on the study plan. I don't think that students can have a role in modifying the study plan because our teachers know better than us. They teach us what is appropriate for our future.

SP10 indicates that accounting students in Jordan are not asked to give feedback on the accounting curriculum. This finding reveals that accounting students do not possess any power or legitimacy to integrate sustainability education into the accounting curriculum. However, SP10 indicates that accounting students do not need to give any feedback on the curriculum because their educators are more experienced in curriculum issues. It appears that accounting students have no urgent claims to participate in curriculum development in Jordan, as they believe that their educators know what courses will help their students in their future. In other words, students accept any recognised courses in the accounting curriculum without question. It seems that if sustainability accounting education is adopted, students will simply accept it as part of the trusted accounting curriculum.

The literature, however, shows that students should not simply be receivers of knowledge. For instance, the Department for Business Innovation and Skills (2011) in the UK suggests that students should have a salient role and should participate in curriculum development to include contemporary courses and knowledge. Students' role comes through providing their educators with sufficient and effective feedback. Figueredo and Tsarenko (2013) argue that universities should give students the opportunity to participate in sustainability activities and setting sustainability courses. The theoretical framework developed for this PhD study (chapter 4) suggests that Jordanian accounting students should participate in sustainability accounting education through their 'internal guidance' role acting as internal stakeholders.

7.6.6 Corporate Sustainability Practices: Educators' View

According to the majority of interviewed educators, it was found that there is a clear lack of sustainability practices in Jordan which creates a challenge for implementing sustainability education in the business and accounting curriculum. An obvious example of the lack of corporate sustainability practices in Jordan is the issue of sustainability reporting. The majority of interviewed educators believe that mandatory reporting does not exist in Jordan and that

voluntary reporting is very low. This view is supported by KPMG's (2015) survey which found that sustainability reporting practices are the lowest and weakest in Middle Eastern and African organisations compared to those in the rest of the world. According to the educators, sustainability reporting in Jordan needs to be supported by government legislation and legal enforcement. Without these industrial organisations will not commit to sustainability and, as a result business schools, will keep ignoring sustainability issues in their curriculum. EP3 clarifies this point:

If there were national requirements and governmental control and observation that [make a] claim for reporting and frequent company disclosure, then it (sustainability accounting course) will become a mandatory subject.

EP3 suggests that the integration of sustainability education into the accounting curriculum needs to be supported by corporate sustainability practices, which are currently poor due to the weak enforcement of governmental laws and regulations. According to Murillo-Luna et al. (2008) and Schaltegger and Burritt (2010), government legislation and laws form a legislative pressure on organisations that oblige a company to disclose and report on the required sustainability information. Qadir et al. (2010) and Mustafa, Alz-Stamm, and Scott (2016) argue that although the Jordanian government has passed environmental legislation, laws and regulations, the government faces difficulty in enforcing these. This weak governance leads to a lack of sustainability reporting and practices and so constitute a challenge for sustainability education. The majority of interviewed educators believe that the lack of environmental legislation enforcement in Jordan is due to a lack of governmental power in limiting negative corporate practices. EP10 opines:

...and I think the government is afraid that if they make strong control on these organisations, they (the organisations) will close and move the business to other countries with less regulations which may hurt the overall economic situation in the country.

EP10 argues that businesses, and particularly their shareholders, know that Jordan needs their local investment to refresh the poor economic situation, and, thus, provides them with the power to manipulate, if not ignore, some government regulations and laws. EP10 believes that in the meanwhile the government of Jordan has to ignore some bad corporate practices, since the government pressure may lead businesses to shut down and move to another country with less legislative pressure. Khanna and Palepu (1997) believe that governments' focus on controlling business strategies may be incorrect, particularly for emerging markets.

The majority of interviewed educators believe that industrial organisations in Jordan not only adopt unsustainable practices, but also go even further. They state that the business realm in Jordan is able to make use of its widespread relationships for manipulation purposes and to take many and different advantages of its surroundings. EP10 gave a good example about not only the lack of corporate sustainability practices, but also the means industrial organisations use to gain a reputation for sustainability without practising sustainability. EP10 states:

...hey, have you ever thought how ISO 1401 is granted here in Jordan? Most companies attempt to obtain it and they succeed... Private hospitals in Jordan, which are private organisations, are very powerful to the extent that they use inappropriate ways to eliminate their hazardous and dangerous wasted materials although they have the ISO certificate. The ISO committee may pay a visit to these organisations once a year to see how they go on, but the dates of these visits are previously known by the hospital and so they know how to deceive the committee.

EP10 presents this example to show how powerful business organisations in Jordan are. EP10 indicates that business organisations show great unwillingness to practise sustainability, and if they have to practise sustainability to gain, for example, reputation, they try to manipulate these sustainability practices (greenwashing). EP10 also provides evidence that business organisations in Jordan are powerful and can avoid the government laws and regulations one way or another. It appears that Jordanian business organisations are aware of the business case for sustainability whereby sustainability is used to enhance their financial performance and make them appear to be good citizens (e.g., by obtaining ISO accreditation). However, if it is possible for these organisations to gain the positive sustainability outcomes (e.g., reputation) without actually practising sustainability, they will not hesitate to do so. Carroll and Shabana (2010) and Dhaliwal et al. (2012) argue that business organisations appreciate the business case for sustainability practices. Yet, organisations are ready to adopt greenwashing if they can (Hahn & Reimsbach, 2014). Such institutional behaviour has led to a lack, if not absence, of sustainability practices which is, according to the findings of the institutional challenges, one reason for the absence of sustainability education in the business and accounting curriculum in Jordan.

A few of the interviewed educators, however, have a slightly different viewpoint about the lack of corporate sustainability practices and its impact on sustainability education in business schools. They believe that business schools should take the lead and change corporate practices, so that these practices become consistent with what is being taught in business schools, not vice versa. If this is the situation, then the current lack of corporate sustainability practices is

not the reason behind the absence of sustainability education in the business and accounting curriculum. EP4 suggests:

...and I think everybody knows that Jordan is suffering from bad industrial practices; however, it is unfair to completely blame companies for such practices. Who taught these companies the way to run the business as usual, and the way to generate as much net profit as possible?! We (business and accounting educators) have done so for such a long time and we still do it! In my opinion, and I know some may not like this, the current corporate practices are as a standard and normal result of business and accounting education since its advent.

EP4 clearly argues that business schools should lead and direct corporate practices because these practices were learnt somewhere in business schools and learners simply believed in and applied what they had learnt. EP4 indicates that educators never intended to produce future managers able to address sustainability issues. As a result, the lack of corporate sustainability practices is the result current practitioners never having been taught to practise sustainability. The role of business schools should not be confined to meeting the needs of businesses (employers) only. This role is much greater, because it should lead and direct business practices towards achieving the public's interests in the country instead of merely meeting the shareholders' interests. Sen et al. (2010) argue that, because sustainability education is not sufficiently included in business and accounting curriculum, current managers and accountants are not sufficiently qualified to bring real change to corporate practices. Sen et al. (2010) also believe that sustainability education, if integrated into the business and accounting curriculum, will produce future managers and accountants able to make the required change to future corporate practices and achieve the sustainable development agenda in a particular context.

7.6.7 Corporate Sustainability Practices: Industry's View

In line with educators, the majority of interviewed industrial practitioners believe that it is important to encourage organisations to practise sustainability; however, they feel that the absence of mandatory reporting and the lack of voluntary reporting is not their fault as long as they are committed to the regulations and standards issued by the accounting profession. IP1 indicates:

I prefer mandatory reporting so that companies have to change their policies and strategies to deal with sustainability issues. We cannot decide what to do as accountants, it's the management's and employer's job. However, no one can force the employer to change their company's practices as long as these practices are acceptable to the IFRS and GAAP.

A level of recognition concerning the lack of sustainability reporting in their organisations was found among the industrial practitioners. This recognition reinforces studies by Rahahleh and Sharairi (2008) and Rahahleh (2011) who found insufficient sustainability reporting and insufficient accounting disclosure in Jordanian industrial organisations. However, IP interviewees tended to blame both their employers and the Jordanian accounting profession for the current corporate practices.

Furthermore, the majority of interviewed industrial practitioners believe that business schools have also contributed to the lack of sustainability practices in Jordan. IP1 explains:

I think accounting educators aim to meet the needs of employers and so they teach the type of accounting that only meets the needs of employers which is mainly the financial accounting because making profit is the only concern of employers. The lack of sustainability practices I think has impacted on the type of accounting being taught in universities.

The majority of IP interviewees claim that universities, including business schools, can be responsible for the lack of business sustainability practices in Jordan. IP4 mentions:

...I simply apply what I have learnt mainly in university, and what I am learning in courses held by the company...I am successful in my work and everything is great!

It is difficult to find fault with the way this participant thinks about his work performance because, for a long time, he has simply been doing what he was trained to do. The business school that granted this interviewee his bachelor's degree in business or accounting should be blamed for not teaching him along with his classmates about the importance and sensitivity of sustainability matters. This finding is in line with Bebbington and Thomson (2001) and Fakoya (2015) who argue that current business schools have not taken even basic sustainability education seriously in their curriculum. Thus, instead of only meeting the needs of current employers, business schools should commence teaching sustainability to bring change to the future practices of business organisations in Jordan.

7.6.8 Corporate Sustainability Practices: Profession's View

The majority of interviewees from the accounting profession also believe that there is a lack of business sustainability practices in Jordan. This, they believe, has contributed to the absence of sustainability education in the accounting curriculum. However, the participants from the Jordanian accounting profession believe that the main reason for the lack of corporate sustainability practices is because of employers themselves, because knowledge of sustainability practices is not one of the requirements employers include in their job recruitment

process. PP4 states:

...and labour market constitutes a challenge to sustainability education because employers do not require the applicant to have either knowledge about sustainability accounting or skills to practise it.

The aim of universities, particularly business schools, of meeting only the needs of employers is again the main point highlighted by the professional participants. In other words, as long as employers do not require sustainability knowledge in their organisations, there is no need to provide this type of knowledge in universities. According to Frank et al. (2011), employers are powerful enough to influence the corporate practices and accounting curriculum; consequently, sustainability education can be found in countries where employers require sustainability practices in their business as usual. However, Klingenberg and Kochanowski (2015) argue that recruiters do not really understand sustainability, and this ignorance creates a dilemma for educators in terms of how to craft adequate educational experiences because employers' needs are not clearly expressed.

When PP4 was asked about the profession's role in supporting corporate sustainability practices, he stated:

...the issue is that we can do nothing to help as long as the company follows the IFRS and GAAP...perhaps the government can force companies to improve their sustainability practices.

PP4 indicates that the Jordanian accounting profession is powerless and has no urgent claims to improve corporate sustainability practices, because such practices are not required by the global profession (e.g., IFAC). It seems that, although the sustainability issue is theoretically important, it is difficult for sustainability to gain the same level of importance as other areas in terms of its implementations unless there are clear and specific standards to follow, for example, the IFRS. Making such clear and specific standards is also difficult due to the broad and ambiguous definition of sustainability (Williams et al., 2011). Gaining the same level of importance becomes even more difficult particularly in developing countries where organisations do not make the environment and societies at their top priority.

7.6.9 Corporate Sustainability Practices: Students' View

All interviewed students believe that there is clear evidence on the lack of corporate sustainability practices in Jordan. It was found that most participating students share a similar view to that of the majority of interviewed educators in which students think that the business realm in Jordan is very powerful to the extent that the government is unable to control business activities, particularly those that impact adversely on the environment. SP4 suggests:

... (Jordan's environmental concerns) *lead factories and organisations to run businesses outside Jordan, if the government will seriously consider any environmental reforms.*

The students highlighted the ability of businesses in Jordan to resist the government's attempts to impose legislative, environmental enforcement on them through environmental reforms. SP4 indicates that business organisations are aware that Jordan needs them to keep operating inside the country in the interest of the overall economic situation of Jordan, even though their practices have a negative impact on the environment and society. In other words, businesses in Jordan push the government to accept their current practices. It seems that business organisations in Jordan are aware that less governmental legislation helps them meet their urgent claims to grow faster and achieve profit maximisation, especially as committing to environmental legislation is costly.

Khanna and Palepu (1997) suggest less governmental legislation should be imposed on business organisations in the developing markets particularly, so that these businesses can maximise profit and grow faster. However, such growth involves sustainability initiatives, as evidenced by the high level of environmental degradation. The policies of emerging markets in developing countries aim at attracting foreign investors who are seeking less governmental legislation on their businesses (Zahid et al., 2019). These policies, however, have adverse impacts on both society and environment (Hishan et al., 2019; Qureshi, Elashkar, et al., 2019; Qureshi, Yusoff, et al., 2019). The government, as a stakeholder, has a key role in preventing corporate adverse practices, although research in this area is limited (Dahan, Doh, & Raelin, 2015). However, the government of Malaysia does offer one example; it has initiated policies and incentives to encourage cleaner production and sustainable industrialisation (Qureshi, Rasiah, Al-Ghazali, Haider, & Jambari, 2019).

However, the businesses' resistance to the government's environmental legislation is not the only reason behind the lack of corporate sustainability practices in Jordan. SP10 recalls:

I remember once I went in a trip to the river of Jordan, it was terrible! All types of pollution can be found there! Once, I read in Ammon news (a local news agency) that many industrial companies fill the river with their waste materials. I wonder why there isn't anybody able to stop this! I know how to treat the cost of waste materials from an accounting perspective but I never thought of the link between waste materials and the environment; nobody talked to us (students) about that!

The student here attempts to highlight two main points: first, there is a lack of accountability in Jordan since nobody is able to stop the current bad corporate practices and second, education is not supporting sustainability practices through increasing students' environmental

accounting knowledge and awareness. These two points highlight the current lack of corporate sustainability practices and the well-known lack of accountability in Jordan. For example, Alshawabka (2019) found that Jordan's water pollution, particularly of the River Jordan, is due to a lack of corporate sustainability practices, and more specifically water accounting practices, which reflect a deep lack of accountability in Jordan. Meanwhile, the worldwide literature supports the role of education in enhancing corporate sustainability practices (see the literature review chapter). In Jordan, Abu-Alruz et al. (2018) believe that universities are not encouraging students' engagement in sustainability issues. Such engagement will increase students' knowledge and awareness of sustainability dimensions. Sustainability engagement also encourages students to think critically and wonder what is meant by the 'good' business in society (Sharma & Kelly, 2015). The next section discusses the social challenges.

7.7 Social Challenges

The salient stakeholders participating in this study highlighted the lack of general social accountability and awareness as the social challenges of integrating sustainability education into the business and accounting curriculum. According to Andersson (2006), social awareness of sustainability helps a society perceive its dominant role in practising accountability, because sustainability aims to make business organisations responsible for their externalities to society. According to Courtice and Van der Kamp (2013), increasing social awareness of sustainability is important, because it leads to shifting societal norms, something which is a significant challenge to sustainability implementations. Sustainability implementations are influenced by the values and attitudes of people, because people's actions and behaviours are a result of their values and attitudes (McFarlane & Ogazon, 2011).

For example, people in the U.S. consume far greater resources than the rest of the world does and produce much more waste including mechanical industrial wastes and environmental pollutants (McFarlane & Ogazon, 2011). As a result, the role of American society should be notably greater than that of many of its counterparts in the sustainability movement and the advancement of sustainability education (McFarlane & Ogazon, 2011). The role played by society in the U.S can perhaps be noted through the high rates of sustainability reporting in America. According to KPMG (2020), sustainability reporting rate in U.S organisations had reached 98% by 2020 compared to 92% in 2017. This societal role can be practised through accountability which forces businesses to achieve the society's purpose of helping its members

to live a ‘good life’ (Sharma & Kelly, 2015). The following sections explain the interviewees’ views on the social challenges in Jordan.

7.7.1 Social Awareness on Sustainability and Accountability: Educators’ View

The majority of participating educators believe that, even though people are suffering from the industrial externalities³⁶, there is a general lack of awareness in the Jordanian society that they need to practise their role effectively in supporting the case for sustainability, EP3 mentions:

...people are unaware of their powerful role in making companies cooperate with you (the researcher and all academics who support sustainability in business), the Ministry of Environment and the Ministry of Industry to practise sustainability and commit to the environmental laws and regulations.

EP3 is arguing society should play an increasing role in demanding corporate sustainability practices and sustainability education in business and accounting curriculum. EP3 used the word “powerful” perhaps to highlight the society’s right to accountability and the society’s strength in delegitimising adverse corporate practices through its definitive role (highest level of salience) i.e., having power, legitimacy and urgent claims to see sustainability education and better corporate sustainability practices. The definitive role of society in demanding sustainability practices and education is also because of the ‘social contract’ between society and organisations (Deegan & Rankin, 1996; Wanjan, 2006). A society should be aware of the integrative theories that support its stance in front of organisations. According to Siltaoja and Onkila (2013), integrative theories argue that business organisations depend on society for their progression, growth, and even their existence. However, the definitive role of society requires deep societal awareness so that individuals can work together to put pressure on corporate practices.

Alshawabka (2019) found that Jordan suffers from a general lack of social awareness of the importance of natural resources and the environment and that this has led to a lack of accountability and pressure to change Jordan’s adverse industrial practices. The majority of interviewed educators suggest that the Jordanian society is not demanding sustainability education and practices due to a lack of sustainability awareness, which if addressed, can be a way to push for the implementation of sustainability education in the accounting curriculum. EP3 continues:

Unlike Jordan, Scandinavian companies as well as those in New Zealand, Australian, and Britain are all from the models of sustainability because they have

³⁶ See ‘Jordan at a glance’ chapter for more details about industrial externalities in Jordan.

very high environmental standards and solid environmental laws supported by the society. Thus, companies' breaches are subject to a very high debate in the media, parliament, government and other people who are quite aware of their important role as members in society. Students form a big proportion of the Jordanian society, and their education is one way to increase awareness.

EP3 highlights the importance of social awareness, as it helps the Jordanian society understand their definitive role in mitigating existing and future environmental issues. EP3 indicates that due to a lack of awareness, the Jordanian society is unable to be like societies in other developed countries and support the government of Jordan in enforcing environmental legislations on businesses. Schaltegger and Burritt (2010) believe that societies should be aware of their key role in supporting sustainability by putting pressure on business organisations' behaviour and supporting the government legislation imposed on these organisations. EP3 suggests that sustainability education should be an integral part of the university curriculum to increase Jordanian society's awareness of its key role in supporting sustainability issues.

7.7.2 Social Awareness on Sustainability and Accountability: Students' View

As found from the interviews with educators, students also point out the lack of social awareness on sustainability and accountability in Jordan. The majority of interviewed students believe that the obvious, existing environmental issues in Jordan are due to a lack of social awareness on sustainability issues. SP1 suggests:

There is a massive lack of awareness as well as lack of understanding of the importance of the environment to human beings. I think people just do not care for what does not directly impact on them.

Perhaps SP1 mentioned the lack of awareness in a very general way using the term "human beings" because one can argue that students are indeed aware of the environmental degradation not only in Jordan but also worldwide (e.g., climate change). In Jordan, the lack of sustainability awareness is deep to the extent that even students can notice it. Almbaideen (2018) reported that people in Jordan thought that the donations made by organisations represent sustainability business practice. SP1 believes that the lack of social awareness has led people to care about what only directly influences their daily lives. Gray (1992) argues that societies should be aware of the way their natural capital³⁷ is used by business organisations. Some interviewed students were not sure if only the layperson's awareness will be enough to stop bad corporate practices. They believe that public awareness must be associated with activities

³⁷ Natural capital, as explained by Gray (1992), is the biosphere including its two parts: the immutable such as the ozone layer, and the renewable such as water, air and agricultural products. Due to lack of awareness, people at an individual level may think these two parts indirectly influence them, and so are not important.

of official parties such as the government, the media, the university, and the employer. SP8 opines:

I honestly cannot imagine that people's awareness can put enough pressure on companies to change their practices. This happens perhaps in movies! I think all parts of the society must be aware of their roles in promoting sustainability practices...universities can support these practices through education, the government's support is through imposing environmental laws, the media's role also is in showing the importance of sustainability and teaching people how to live sustainably; none of these issues is seen here (in Jordan) because there is no awareness nor executive parties to increase awareness.

SP8 notes that awareness does not create itself, as there must be someone who creates and increases awareness, and that 'someone' is all official parties in the Jordanian society. One could, therefore, argue that the social contract between society and organisations cannot be effective unless all elements of the society have total societal awareness of their role in supporting sustainability issues and which would improve corporate sustainability practices in future. Sharma (2000) argues that different sectors in society should cooperate to improve corporate sustainability practices.

7.7.3 Social Awareness on Sustainability and Accountability: Profession's View

The majority of participants belonging to the accounting profession believe that a general lack of sustainability awareness has hindered sustainability practices and education. PP2 explains:

The issue here is that people who should be involved in the process of sustainable development do not perceive the importance of sustainability accounting, whether practice or education. I mean by people, teachers, students, employees, and employers.

The majority of interviewees from the accounting profession believe that universities (academics) as well as industrial organisations (practitioners) in Jordan are unaware of the importance of sustainability education and practice. Supporting this profession's view, Khader (2010) believes that the lack of academic awareness and accountability is a key challenge in promoting sustainable development in Jordan. Wright (2002) argues that the lack of social awareness and accountability is a major challenge to sustainability implementations. The lack of awareness in Jordanian business organisations is evident in the obvious environmental negative externalities of unsustainable business practices (see country context chapter). The majority of interviewees from the accounting profession suggested that the government is the most appropriate salient stakeholder group which will be able to increase sustainability awareness in the Jordanian society via its different ministries. PP4 clarifies:

Yes, we can contribute in increasing sustainability awareness but it is much better to ask the government for help. While we are only one team, the government has many different teams to spread awareness. Take, for example, the Ministry of Environment, the Ministry of Industry, the Ministry of Agriculture, the Ministry of Education, the Ministry of Culture, etc., such ministries are closer to people and know how to reach and deal with all society's layers.

The accounting profession group of stakeholders believes that the government of Jordan has a more effective influence in increasing public awareness of sustainability issues that lead to better accountability and corporate practices. Almbaideen (2018) reported that the lack of awareness in Jordan has led to weak accountability and so weak corporate sustainability practices in businesses.

One professional interviewee, however, highlighted the role of business schools in raising social awareness throughout the student body in all business' disciplines. PP5 states:

...our universities are filled with students who belong to every Jordanian family in the country. Business schools should immediately add an optional course on society and organisation or on corporate sustainability that presents very general sustainability topics that aim only to increase societal awareness. This course must be with discounted tuition fees, if not for free, so that all students are attracted to enrol in it.

PP5 here suggests a way to increase awareness in society and make students familiar with sustainability topics. PP5 focused on students as a way to spread awareness in society because students form a significant proportion of the society. In Jordan, and according to the latest statistics (those for 2017), business schools alone had 11023 enrolled students from all over the country (Ministry of Higher Education and Scientific Research, 2018). The number of enrolled students has been used by some studies as a good tool that could support and promote sustainability education and awareness in society (see, for example, Adelman, 2004; Galbraith, 2009; Salequzzaman & Davis, 2003).

7.7.4 Social Awareness on Sustainability and Accountability: Government's View

The majority of interviewed government employees also believe that there is a lack of social awareness of sustainability issues in Jordan. They believe that this lack of awareness has prevented them from gaining more impact and control over some of the of industry's adverse practices. The government interviewees indicate the need for societal help and support to stop bad corporate practices but acknowledge that will require a high level of social awareness. GP3 mentions:

We would love to see what sustainability advocates are talking about! We wish to see that everything is alright and people are happy! But don't you (the researcher) think that a such thing will need to a massive awareness of all people in Jordan?! Schools and university teachers need to tell their students about sustainability; employers and managers need to show sustainability practices to their employees; and we, along with the media, have to talk about sustainability everywhere; it is all our responsibility, not only the government's responsibility.

This finding is in line with students' viewpoint that there should be a shared responsibility amongst stakeholders to increase social awareness of sustainability. This viewpoint is the most rational, as all stakeholders should contribute in raising the level of awareness about sustainability in Jordan. Sharma (2000) and Cordano et al. (2003) argue that increasing sustainability awareness in society leads to better corporate practices; however, it requires synergies in society's efforts. Having better corporate practices also requires graduates to be equipped with sustainability knowledge and skills.

One interviewee occupying a high position in the Ministry of Higher Education, however, focused on the role of higher education institutions. He suggests that higher education institutions can make an entire society transition towards sustainability matters in Jordan. He believes that universities have a vital role in increasing social and environmental awareness. He also believes that universities should help Jordanian society to understand its role in bringing about change to the status quo. GP5 opines:

I agree that we have a role to play in this regard (increasing social awareness), but I still believe that our Ministry of Higher Education has played a vital role in increasing the social awareness of sustainability matters. I don't know about the position of sustainability in our business schools, but you (the researcher) cannot deny that we do care for sustainability issues throughout our widespread public universities. For example, the Hashemite University of Jordan has a very sustainable campus in which they use solar power to support the entire campus with needed energy. Also, sustainability issues are well considered in faculties such as agriculture, environment and engineering. This has contributed in increasing people's awareness of the importance of addressing sustainability issues at an individual level.

GP5 believes that universities are able to increase the social awareness of sustainability issues by giving real examples and practical cases along with theoretical knowledge on how to make changes to the individual's daily activities so as to become more sustainable. According to Kates (1995) and Ravetz (2006), this change in individual's daily activities is complex, as it requires society-wide shifts in priorities and perspectives. Managing this societal shift brings uncertainties due to the unexpected behaviours of human beings (Laws et al., 2004). Thus, to be able to make the change, Lozano (2006) and Holm et al. (2016) argue that universities need

to change all its aspects of their activities, including the curriculum and courses provided and the campus management. Supporting the finding of GP5, Stephens, Hernandez, Román, Graham, and Scholz (2008) argue that universities hold a unique position in society in terms of engendering support for sustainability, because they are important places of knowledge production, knowledge perpetuation, and knowledge dissemination.

GP5 highlights different ways Jordanian universities can spread sustainability awareness in society. These include having a sustainable campus (lead by example) and teaching sustainability issues in sustainability-related faculties. Expectations about universities' support of societal awareness and change towards sustainability practices can differ from society to another based on different cultures and contexts. However, Stephens et al. (2008) argue that there are four general categories of views on how universities can support societal awareness and a transition towards sustainability practices. First, universities can model sustainable practices for society because sustainable behaviour should start with oneself by promoting sustainability practices in the campus environment (as indicated by GP5's example of the Hashemite University's sustainable campus). As indicated by GP5, teaching society how to maximise sustainable behaviour is already partially happening in certain faculties e.g., environment, agriculture, and engineering, but not in business schools.

Second, universities teach students how to cope with complex sustainability issues through providing these students with skills of integration, synthesis, and system-thinking. This second category however, requires a change to the curriculum (Colucci-Gray, Camino, Barbiero, & Gray, 2006). Third, universities can show the society that they are conducting real-world problem-based research targeted at addressing the urgent sustainability issues facing their society. Lastly, universities are also able to promote and enhance engagement between individuals and institutions from outside universities (e.g., government, a professional body and industry). According to GP5, it seems that Jordanian universities might be supporting sustainability issues partially as per the first category; however, none of the remaining three categories is applied particularly by business schools.

7.8 Summary

This chapter presented the first part of the qualitative findings of this study. These findings discussed the current challenges to the integration of sustainability education into the Jordanian accounting curriculum. These challenges were classified into were identified through the Nvivo thematic analysis of the different views of participating salient stakeholders.

The educational challenges indicate that it is difficult to teach sustainability in the accounting curriculum because it is a relatively new concept with no clear definition, which makes it difficult to understand without philosophical underpinnings. It is found that sustainability education tends to rely on qualitative knowledge, something which is rare in the accounting curriculum. The educational challenges also indicate that sustainability accounting education requires teaching and learning pedagogies that are different from the pedagogies used in Jordan (e.g., guest speakers, focusing groups, and field visits). It was also found that there is a lack of teaching and learning resources in the domain of sustainability accounting education. The integration of sustainability education into the accounting curriculum was also found to be challenging due to the overcrowded accounting curriculum.

The ideological challenge indicates that the value relevance of sustainability to accounting was either lost or unclear. According to participants, sustainability and accounting have contradictory goals, and so teaching sustainability accounting will weaken the accounting curriculum. It was also found that industrial practitioners perceive only the social dimension of sustainability, which is usually used for marketing and tax reduction purposes. The governmental challenges show that integrating sustainability into the accounting curriculum requires less governmental control over the curriculum and giving more autonomy to accounting educators. It was also found that bureaucracy slows down the process of decision-making and so discourages educators' efforts to integrate sustainability education into the accounting curriculum.

The institutional challenges show that there is a lack of corporate sustainability practices and reporting in Jordan which impacts negatively on sustainability accounting education. It was found that employers do not require sustainability education in job candidates. The institutional challenges also indicate that there is an inappropriate distribution of power, legitimacy, and urgency amongst salient stakeholders, which makes their roles inactive in supporting sustainability education in the accounting curriculum. Finally, the social challenge shows that there is lack of sustainability social awareness and accountability in Jordan and that this impacts on the key role in society's legitimating of adverse corporate practices and supporting sustainability education. While this chapter investigated the challenges of integrating sustainability into the accounting curriculum, the next chapter discusses the findings on the benefits of integrating sustainability education into the accounting curriculum in Jordan.

Chapter 8

Interview Findings on the Contextual Benefits of Sustainability Integration into the Jordanian Accounting Curriculum

8.1 Introduction

This chapter is an extension to chapter 7. Chapters 7 and 8 address the third research question of this study, which is: What are the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum? While chapter 7 presented and discussed the challenges of sustainability integration into the accounting curriculum, this chapter presents and discusses the benefits of this integration. These benefits are understood as benefits to Jordan if sustainability education is integrated into the accounting curriculum. The following sections identify and discuss these benefits from the salient stakeholders' perspective.

8.2 Benefits of Sustainability Integration into the Jordanian Accounting Curriculum

The literature review demonstrates that integrating sustainability education into business and accounting schools results in different benefits for students, business organisations, and society. For instance, teaching sustainability education equips accounting students with sufficient knowledge of sensitive global issues such as climate change and global warming. It also enables them to think critically and analyse different situations (Gray et al., 1994). Burritt et al. (2009), Schaltegger et al. (2010), Christ and Burritt (2013), Mistry et al. (2014), and Doorasamy (2016) believe that sustainability education improves future corporate sustainability practices, which, in turn, contributes positively in the overall societies' prosperity and transparency, saving the natural capital and reaching for a higher quality of life (Gray, 1992, 1993, 1994, 2006a; Scott et al., 2012).

Similarly, the Jordanian salient stakeholders participating in this study highlighted a range of benefits of sustainability integration into the accounting curriculum. These benefits were classified into three main themes: benefits for the current traditional accounting curriculum, benefits for the current accounting students, and social and environmental benefits. Figure 8.1 shows how the main themes and the related subthemes emerged from the Nvivo thematic analysis used in this study.

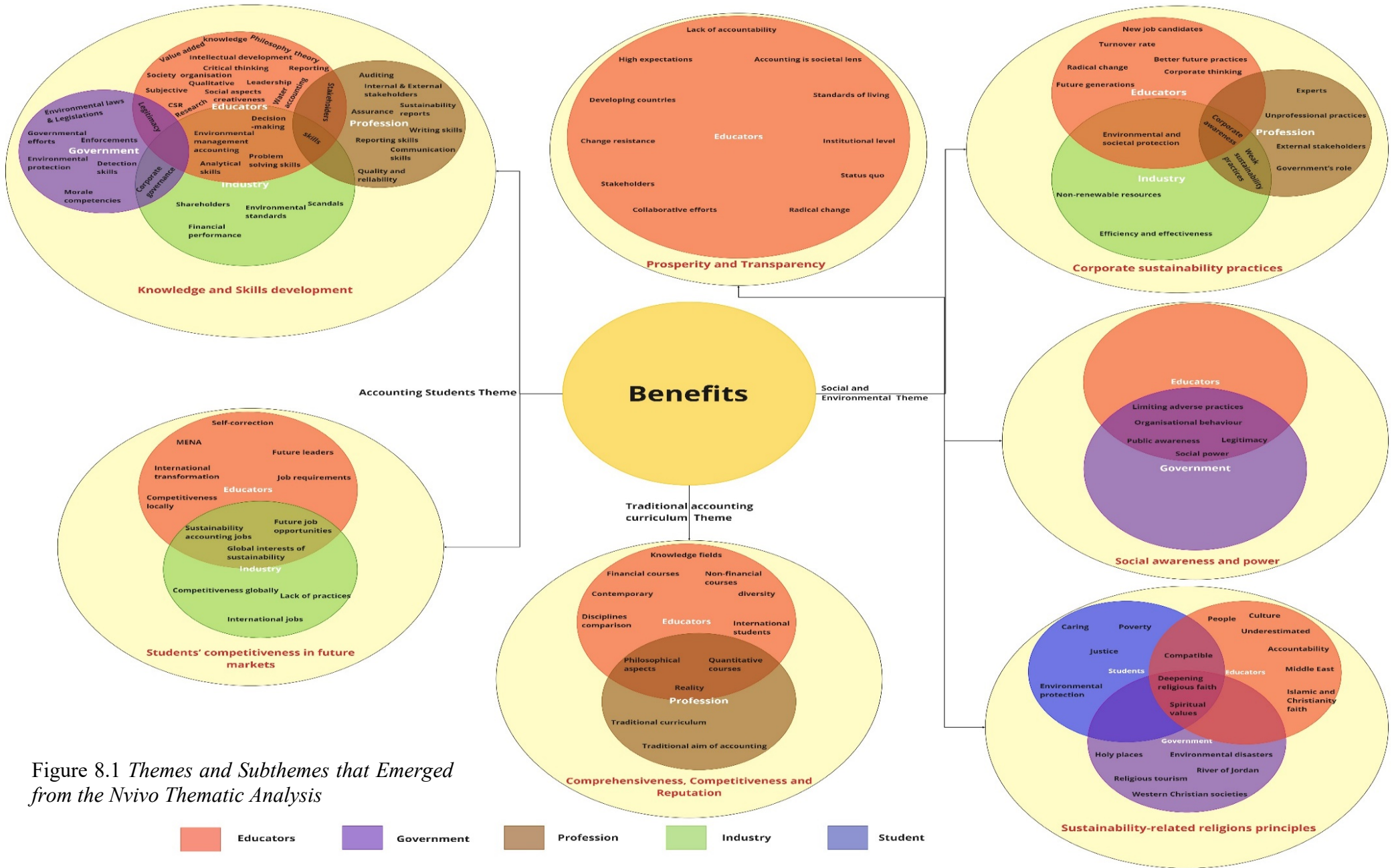


Figure 8.1 Themes and Subthemes that Emerged from the Nvivo Thematic Analysis

8.3 Benefits for the Current Traditional Accounting Curriculum and Education

The majority of interviewed stakeholders believe that the integration of sustainability education into the accounting curriculum will bring significant benefits to the accounting curriculum and education. Sustainability education, if integrated, will make the accounting curriculum and education more comprehensive, competitive, and reputable. The following subthemes discuss the stakeholders' views.

8.3.1 Comprehensiveness, Competitiveness and Reputation: Educators' View

Even though the current accounting curriculum is overcrowded and overwhelmed with courses, as previously discussed in chapter 7, the majority of interviewed educators believe that the current accounting curriculum is not comprehensive. They believe that sustainability accounting education has different characteristics that distinguish it from all other current accounting courses in the curriculum. Current accounting courses in Jordan support only the conventional part of accounting without covering philosophical aspects of nonfinancial accounting (Nassar et al., 2013). According to the majority of interviewed educators, adding sustainability accounting is very similar to broadening and diversifying the scope of accounting functions and roles in society. The educators' view indicates that sustainability accounting will add value to the current accounting curriculum, making it more comprehensive, balancing it between financial and nonfinancial accounting:

Sustainability accounting adds to the diversity of the study plan. Although it is not considered in the knowledge fields of the discipline, it adds important and long-neglected philosophical aspects of accounting. This is important in social science and accounting. Sustainability accounting expands the cognitive areas covered by the study plan of accounting. (EP6)

EP6 highlights a missing part of accounting education where philosophical qualitative aspects of accounting are neglected. Sustainability accounting enriches this neglected part of accounting education because it is based on more theoretical work than on quantitative numbers. The educators perceive that sustainability accounting adds value to the current accounting curriculum because it does not fit any of the existing knowledge fields, which makes it completely new to the current curriculum.

The HEAC's required accounting fields of knowledge cover mainly quantitative accounting areas and this focus has impacted on the current accounting curriculum in that it lacks comprehensiveness and diversity in its content. It appears that the current accounting

curriculum follows the traditional school of accounting of Friedman (1970) and aims only to teach ways of accounting to achieve corporate profit maximisation (Lamberton, 2005b). Integrating sustainability education into the accounting curriculum will change this traditional view of accounting, according to the majority of interviewed educators. EP1 states:

Personally, I consider adding sustainability accounting to the study plan useful because it offers a new perspective in accounting, making the study plan more contemporary and much familiar with what really happens in people's lives.

EP1 indicates that understanding what really happens in people's lives requires a continuous update to the accounting curriculum to address areas that are of concern to a broader group of stakeholders. Wally-Dima (2011) and Devi et al. (2012) support this educator's view and explain that the current accounting curriculum should meet the needs of stakeholders. Accordingly, sustainability education should be integrated into the accounting curriculum because sustainability education focuses on stakeholders' perspectives and needs (Chulián, 2011; Scott et al., 2012).

The majority of interviewed educators also believe that sustainability education, if integrated into the accounting curriculum, will provide more advantages that are competitive because the comprehensiveness of the accounting curriculum enhances the curriculum's ability to compete worldwide. For instance, EP16 indicates:

Our accounting study plan needs to cover important contemporary topics such as sustainability accounting and forensic accounting to stand high if compared to its counterparts in developed foreign countries, and to be very attractive to international students who are an important indicator of a university's reputation worldwide.

EP16 suggests that sustainability accounting education can add a competitive advantage to the accounting curriculum by becoming more attractive to international students. EP16 also indicates that this competitive advantage can enhance a university's worldwide ranking, which is an important concern for Jordanian universities. According to the World Bank (2016), Jordan's system of higher education is considered one of the best in the Middle East, in addition to the existence of regional universities operating in Jordan (Ministry of Higher Education and Scientific Research, 2016). Jordan's universities have offshore partnerships as a result of cooperation agreements between Jordan and universities worldwide (Bataineh, 2008).

These offshore partnerships have helped attract international students to consider Jordanian universities as a potential place in which to continue their study. Thus, it becomes important to have a very competitive curriculum that encourages these students to study in Jordan. Globally,

sustainability education in the accounting curriculum enhances the competitive advantages of the curriculum because a growing number of organisations (employers) are giving priority to the recruitment to graduates with a sustainability background (Frank et al., 2011). Atwood, Coperine, and Hart (2016) too found that more and more organisations are hiring sustainability professionals who are skilled in sustainability reporting. Meeting this market requires integrating sustainability education into business and accounting curricula by helping prepare professionals in sustainability.

The majority of interviewed educators also believe that sustainability education in the accounting curriculum leads accounting education to gain an enhanced reputation from society. EP4 argues:

...and there is an important point here I would like to mention, which is the extent of society's appreciation and respect for accounting as a specialisation and profession. I think sustainability accounting contributes to that. Accounting does not have enough appreciation and respect from society if compared to medicine and engineering. This is because there is no direct interaction with members of society through the profession of accounting. Accountants deal with a very limited number of people, usually colleagues, whereas the doctor addresses all people in a particular society. Engineers' work is also visible to all people through infrastructure works. I believe that sustainability accounting has an important role in promoting and highlighting the role of accounting in serving the community directly and thereby gaining greater appreciation from society.

EP4 believes that societies appreciate only what is very tangible to them and appreciate only what brings immediate benefits. EP4 explains that societies appreciate disciplines such as medicine and engineering because these disciplines can meet the direct and immediate needs of people, whereas only a few members of a society are aware of the accounting role in providing indirect social services. Chulián (2011) and Khan (2011) argue that sustainability accounting education can teach accounting students the way to deal and interact with a wider group of stakeholders and that in the future sustainability accounting practices will expose accountants to wider groups of stakeholders in the society. This development, in turn, will alert society's members to appreciate accounting and its role in serving them.

8.3.2 Comprehensiveness, Competitiveness and Reputation: Industry's and Profession's Views

In line with the educators' view, most interviewed industrial practitioners believe that sustainability accounting education will enlighten the philosophical part of accounting since the current accounting curriculum explains ways to practise accounting but not why these

practices developed and where they came from. Accounting students as a result acquire the skills of practising accounting but not the knowledge of accounting. This knowledge of accounting requires teaching the philosophical view behind accounting practices, a view which is perceived to be difficult to teach, as discussed before in the educational challenges (chapter 7). Nevertheless, this philosophical part is perceived to add comprehensiveness and competitive advantage to the current accounting curriculum. For instance, IP2 opines:

I think a course on sustainability accounting will add value to accounting education because philosophical issues will be introduced to students who are not familiar with this type of knowledge. Even we are not so familiar with the reasons behind what we practise. We are skilful and can practise with closed eyes but we are not really aware of the philosophical reasons behind such practices.

IP2 believes that accounting education has neglected the philosophical aspects of accounting that explain and justify accounting practices. The overall findings indicate that most industrial practitioners believe that sustainability accounting is more about theory than numbers. Nevertheless, Peoples (2009) believes that it is necessary to prepare a generation of business leaders with the understanding and tools necessary to make critical decisions based on more than just the numbers. The current Jordanian accounting curriculum is inadequate for this preparation of future business leaders. Nassar et al. (2013) support the industrial practitioners' view, since they believe that the current accounting curriculum in Jordan is based on merely conventional accounting.

The interviewees from the accounting profession in Jordan also highlighted a gap in accounting. Similar to the educators, they explained that their requirements do not cover all accounting aspects, but focus mainly on the quantitative information produced by accounting functions. The majority of interviewed participants from the accounting profession believe that sustainability education, if integrated into the accounting curriculum, will make a significant contribution in changing the aim of the accounting curriculum to one that serves wider and different layers in the society because, as they suggest, sustainability accounting considers stakeholders along with shareholders and provides a comprehensive focus on both financial and nonfinancial information. PP1 explains:

Sustainability accounting may change the objectives of the accounting study plan. These objectives focus only on maximising the shareholders' wealth. The sustainability course may take the curriculum far beyond numbers where nonfinancial information has more consideration and is treated seriously.

PP1 believes that sustainability accounting education can help change the traditional aim of accounting where only profit maximisation matters. IP1 indicates that the current accounting

curriculum in Jordan is inadequate because it ignores nonfinancial accounting aspects that include sustainability issues. Scholars have long argued that the current business and accounting curriculum is inadequate in preparing students for the current and future business environment (Andrews & Higson, 2008; Cranmer, 2006; Jackson, 2010; Sikka, Haslam, Kyriacou, & Agrizzi, 2007; Washer, 2007). A potential reason for this inadequacy could be the curriculum's significant focus on the accounting techniques that provide only financial information (Kelly & Alam 2009). The findings in this section from the industry and accounting profession's viewpoints indicate that the accounting curriculum should be more comprehensive and include nonfinancial aspects such as those found in sustainability topics in order to better equip students with an understanding of current and future business environments. The next section discusses the benefits for accounting students.

8.4 Benefits for Accounting Students

The majority of participating stakeholders believe that the most important benefit of integrating sustainability into the accounting curriculum is its influence on accounting students as a group of stakeholders. Accounting students are a critical focal point because they will be directly influenced by sustainability education, if it is integrated. They are also the future leaders who will consider sustainability issues in their business and management decision-making processes (Robinson, 2012; Wachholz et al., 2014; Zeegers & Clark, 2014). Figueredo and Tsarenko (2013) believe that students' interest in sustainability issues will influence their future practices and decisions. Thus, the promotion of sustainability initiatives by higher education institutions is an important way to influence students to make future sustainability implementations (Figueredo & Tsarenko, 2013). Different subthemes emerged from this study's thematic analysis as regards benefits for accounting students. These subthemes relate first to students' knowledge and skills development and secondly, to students' future employment competitiveness. These benefits are discussed below.

8.4.1 Knowledge and Skills Development

According to the majority of interviewed salient stakeholders, sustainability accounting education benefits accounting students because it introduces them to different and important new areas of knowledge. They also believe that these new sustainability areas of knowledge help accounting students to enhance their existing skills and develop new skills. Liu (2003) indicates that students can benefit from new knowledge (such as sustainability accounting) because it helps them acquire new skills. According to Liu (2003), new knowledge enables

students to think, remember, and employ the newly acquired knowledge in problem-solving. Although all the participating stakeholders support this subtheme (knowledge and skills development), the interviewees have different expectations about which sustainability knowledge areas sustainability accounting education in Jordan should include and the skills that it should develop for accounting students. The following sections discuss the different stakeholders' views on this subtheme.

8.4.1.1 Knowledge and skills development: Educators' view

The majority of educators in this study believe that integrating sustainability education will expand students' knowledge fields. They believe that sustainability accounting is a new field that will add value to students' knowledge and skills development. Any change in the curriculum also brings a change in the knowledge areas acquired by students. EP6 mentions:

...and I think we have to teach students such materials (sustainability accounting). Otherwise, students who graduate today will have the same knowledge as those who graduated 30 years ago because the accounting curriculum has not changed.

EP6 believes that integrating sustainability education into the accounting curriculum will update the curriculum and will benefit students. The literature review supports the knowledge development students acquire because of sustainability education in business and accounting curriculum. For example, since 1994 a range of key international declarations have highlighted the importance of sustainability education in business and accounting curricula where sustainability education can develop important new knowledge and skills. These declarations³⁸ include, but are not limited to, COPERNICUS University Charter for Sustainable Development (1994), Luneburg Declaration (2001) and the Gaborne Declaration for Sustainability in Africa (2012) (Tilbury, 2011; Wals, Weakland, & Corcoran, 2017).

Most of the educators believe that sustainability accounting would extend students' areas of knowledge because the current traditional accounting curriculum provides students only with one type of knowledge that relates to financial matters and ignores social and environmental issues:

By teaching sustainability accounting, I think, students will be exposed to the accounting treatments for a company's social, economic, and environmental impacts. This perspective is completely new in our accounting education. I think students will need this new perspective in the new era of corporations where

³⁸ See the literature review chapter for further details about these declarations

businesses worldwide today are required to make decisions based on more than financial statements. (EP17)

EP17 believes that sustainability accounting will expand students' knowledge beyond financial aspects to nonfinancial aspects including the environment and society. EP17 also believes that covering nonfinancial aspects including the environment and society in the accounting curriculum is required today because businesses in future will need graduates able to make decisions related to environmental and social issues from an accounting perspective. Gray and Collison (2002) and Peoples (2009) argue that the traditional accounting education is inadequate in preparing future managers (students of today) to make environmental and social decisions because nonfinancial information that relates to environmental and social events requires accountants to be more subjective and rational in their decisions-making process. Chulián (2011) argues that sustainability accounting education equips students with a type of knowledge that focuses on intellectual development, which helps them think more subjectively than the professional skills usually developed by the traditional accounting education do.

The majority of interviewed educators provided meaningful insights into how they think sustainability accounting is expected to help develop students' areas of knowledge. The majority believe that sustainability accounting education in Jordan should help equip accounting students with knowledge about the nature of the relationship between organisations and societies. EP20 and EP10 respectively suggest:

I think a course on sustainability accounting will develop a good knowledge about the relationship between companies and society. I know that the industry sector does not really care for society, so I hope the course can develop knowledge about how can we challenge the practices of this sector. For example, the sustainability course is expected to explain why it is important for companies to positively treat stakeholders.

The course also should explain how sustainability accounting plays a role in protecting society throughout different knowledge areas of sustainability. These knowledge areas reflect the role of sustainability accounting in preserving society from, for example, poverty, unemployment, injustice and environmental disasters. I think that sustainability accounting aims to explain the corporate responsibility for its society.

Both EP20 and EP10 believe that sustainability accounting develops students' knowledge of social aspects and their relationships with organisations. The majority of educator interviewees perceived that the current traditional accounting education does not seriously introduce students to the area of knowledge that relates to organisations and society. The educators believe that sustainability accounting can explain the relationship between organisations and

society through its social dimension. They suggest that different topics can be found under the wider title of ‘organisation and society’, and that the most popular is the CSR concept. Sustainability accounting education in Jordan should include CSR to cover the social dimension of sustainability. According to the International Institute for Sustainable Development (2013), society has to be an integral part of the definition of sustainability in order to balance the needs of current and future generations. Deegan and Rankin (1996) argue that society is a dominant stakeholder which plays a legitimating role in addressing businesses’ negative externalities.

The majority of interviewed educators believe that sustainability accounting also develops students’ knowledge of philosophy and theories that support sustainability practices. They believe that knowledge makes the students able to think subjectively and to have a more holistic and comprehensive view about a situation that needs a decision. Gray et al. (1994) and Kelly and Alam (2009) support this view. They indicate that a holistic view makes business leaders more realistic and confident in making the right decision since there is a philosophical view that supports this decision. Educator interviewees EP15 and EP3 respectively point out:

...students should also gain sufficient understanding by knowing the deep philosophical meaning of sustainability and applying it on the ground, equipping themselves with related theories.

...to understand theories such as stakeholder and legitimacy and their relations with long-run corporate performance and existence.

Their views highlight the importance of understanding theories in decision-making. This understanding, if it exists, indicates a significant development of students’ knowledge. It was found that current accounting students in Jordan have almost no concept of the philosophical aspects of accounting, in particular, the theories that support sustainability accounting. This finding was also discussed in the educational challenges of integrating sustainability education into the accounting curriculum in chapter 7 of this study.

Most interviewed educators also believe that sustainability accounting education develops students’ knowledge of reporting and disclosure. EP8 clarifies:

I think sustainability accounting enables students to compare between the way to prepare traditional financial statements and annual reports and the way to prepare sustainability reports. This is I think one of the most important forms of knowledge sustainability accounting will develop.

Similarly, EP6 states:

Sustainability accounting should provide students with knowledge of nonfinancial disclosure; that is as important as financial disclosure. Sustainability accounting includes topics such as integrated reporting, global reporting initiatives and CSR disclosure.

Educators are of the view that Jordanian accounting students are well versed in how to prepare and use financial statements and reports, but that is not the case when considering sustainability reporting and its related terms such as CSR disclosure, IR and GRI. Educators indicate that current accounting students in Jordan have never heard of such terms in their accounting curriculum. When discussing sustainability matters in accounting, sustainability reporting has a strong presence. Sustainability reporting is important because corporate sustainability practices without reporting remain confined to a very limited number of internal stakeholders such as managers and employees. Only sustainability reporting can deliver sustainability practices to a wider group of stakeholders, particularly external stakeholders.

Unerman (2007) and Murillo-Luna et al. (2008) argue that sustainability reporting is one of the most critical issues because there is always stakeholder pressure and, sometimes, government legislation requiring mandatory information on corporate sustainability practices. According to Burritt and Schaltegger (2010) and Hopwood et al. (2012), accounting has a key role in preparing corporate sustainability reports. For example, Yakhou (2012) believes that it is the job of accountants to disclose sustainability performance metrics and help organisations formulate, implement, and disclose their environmental strategies.

One interviewed educator highlighted an important area of knowledge development that sustainability accounting education could consider. This area relates to water accounting. EP10 opines:

Well, for me I would suggest that a course on sustainability accounting should focus on the prominent role played by water accounting and its role in increasing the productivity of one unit of agricultural water. The agricultural sector is the first sector that suffers from the depletion of fresh water. Sustainability accounting has a role emphasising the importance of reusing treated wastewater in irrigation as an alternative to freshwater for domestic use. Although the agricultural sector constitutes the lowest income sector of the national economy, it is the largest sector that contributes effectively to reducing unemployment because Jordan is an agricultural and semiarid country.

In EP10's opinion, water accounting and management are important concerns for Jordan's economy. Water accounting is a topical issue in developed countries like Australia and New Zealand. However, in Jordan, water accounting will be a new area of knowledge. Jordan

requires such an area of knowledge because, according to the Central Intelligence Agency (2020), Jordan has very limited resources of fresh water and it suffers from severe water scarcity. Hadadin and Tarawneh (2007) believe that these freshwater resources are insufficient to fulfil the needs of both domestic consumption and agricultural and industrial use. Thirty-five per cent of Jordan's water is polluted (World Bank, 2010). A study by Alshawabka (2019) shows that even specialists in accounting in Jordan are not aware of the water accounting concept and how it is employed to save these limited freshwater resources from depletion. This lack of knowledge suggests that sustainability accounting education should include the concept of water accounting.

A number of interviewed educators also believe that they would expect a sustainability accounting course to develop students' qualitative knowledge. Acquiring this knowledge direction could be an important element in developing students' creativeness. EP6 mentions:

Many accounting students do not find themselves in the professional technical aspects of accounting that are based only on numbers. Here, students will have the opportunity to be creative in the philosophical aspects of accounting and in dealing with nonfinancial accounting knowledge.

It was found that one of the major challenges of teaching sustainability is that sustainability content is more qualitative than quantitative in nature. Interviewees perceive that this aspect makes it more difficult to teach sustainability and to explain the concepts³⁹. However, the educator interviewees believe that some accounting students perform better in qualitative courses (e.g., those on research in accounting, commercial law, and research methods). They suggest that sustainability accounting education can help students become more creative and open to more opportunities:

I think if we teach accounting for sustainability, we will open student' eyes on new topics and areas of interests that enable students to have new research horizons for their postgraduate studies. (EP15)

EP15 believes that sustainability accounting education can expand future research opportunities for students to include qualitative approaches. From my own experience and knowledge of Jordan, researchers in this country focus only on quantitative approaches that most, if not all, postgraduate students used to complete their masters' research. One of the interviewed educators challenges the strength of a qualitative research approach:

³⁹ These educational challenges are discussed further in chapter 7.

I wonder how you [the researcher] can analyse data collected by interviews! Every participant will tell you something different, which makes it impossible to analyse! I suggest that you re-write the interview questions using a multiple-choice form so that answers are determined by you. This way you can analyse data and get specific results. (EP21)

This educator, who holds a PhD in accounting, does not believe in the benefits of qualitative research. It appears from the findings that qualitative research is almost unknown in Jordanian universities; nevertheless, Jordanian academics have strong research skills and they publish in high-ranked journals. For example, academics working in the University of Jordan have so far published more than 17000 research papers in local and international refereed and reputable journals (The University of Jordan, 2020). However, some of the educators still maintain that sustainability accounting education is expected to benefit accounting students by expanding their knowledge and skills and opening new ways of doing qualitative research.

When questioned about the skills required by accounting students, the majority of educators suggest that sustainability accounting education should develop analytical skills and critical thinking in students that influence their decision-making and problem-solving. These educators further believe that teaching sustainability accounting will enhance analytical and critical thinking skills as an integrated part of the overall leadership skills required to support sustainability issues. EP10 comments:

Accounting for sustainability should encourage students to think out of the box and understand the long-term impact of current decisions on both the environment and society. Such decisions need a deep analysis to detect whether they are good or bad for the environment and society, considering also their financial impact on the company...sustainability accounting, no doubt, helps prepare skilful future leaders able to address future sustainability issues.

EP10 indicates that sustainability accounting is different from mainstream courses in accounting because sustainability accounting leads accounting students to think about businesses differently. EP10 suggests that teaching sustainability accounting helps prepare good future leaders because current students (future leaders) will acquire analytical and critical thinking skills. EP10 suggests that such skills make students able to distinguish between what is good and bad for their society and environment and so able to address future sustainability challenges.

Adams, Heijltjes, Jack, Marjoribanks, and Powell (2011) argue that leaders who think critically are assumed to consider more elements that may influence, or be influenced by, their decisions (e.g., society and the environment). They also argue that analytical and critical thinking skills

lead leaders to take proactive steps to protect both society and the environment from being vulnerable to business practices. Gray et al. (1994) believe that sustainability accounting education upgrades students' level of thinking to become critical, particularly, by highlighting social and environmental dimensions in students' minds. Chulián (2011) argues that sustainability accounting education helps develop students' analytical and critical thinking and prepares them to be rational future decision-makers able to solve problems beyond simply those relating to business financial matters.

Schaltegger and Burritt (2010) and Yakhou (2012) indicate that sustainability accounting helps decision-makers assess the long-term impact of their current decisions on both society and the environment. This viewpoint is evident in the interview findings of accounting educators in Jordan. For instance, EP1 explains:

Students should learn how to make managerial decisions that take into account the interest of both society and the environment as well as the interest of the company. [The] decision-making process needs knowledge and skills at the same time. I think sustainability accounting is the best accounting course that can help students develop their ability to analyse situations before making critical decisions in managing environmental issues of businesses in future.

Here EP1 is signalling the impact of decision-making on the three dimensions of sustainability (environment, society and economy) and that managerial decision-makers should consider these three dimensions seriously before making their decision. EP1 indicates that sustainability accounting education including environmental management accounting provides students with analytical and critical thinking skills for future managerial decision-making. Bennett and James (1997), Burritt (2004), and Wahyuni (2009) argue that environmental management accounting provides the analytical tools required to fulfil decision-makers' information needs to help assess the impact of decisions before they are taken.

The majority of interviewed educators believe that critical thinking requires the thinker to be sceptical and be able to criticise existing situations in the organisation. According to EP16:

Sustainability accounting helps students express their ideas, opinions, and attitudes concerning sustainability practices within current industrial companies. Sustainability accounting can improve students' self-confidence to criticise inappropriate practices bravely using their power of reporting inappropriate practices to society.

This accounting educator thinks that students, who are the future leaders, should develop analytical and critical thinking skills so that they can use these skills to stand up against inappropriate practices. EP16 indicates that such a use of skills might be unusual in Jordan as

it requires encouragement and self-confidence to stand up a business' usual practices. Kelly and Alam (2009) argue that sustainability accounting education helps prepare students to challenge inappropriate corporate practices with confidence. They argue that sustainability accounting education increases students' awareness of their position as an integral part of society and salient stakeholders.

Campbell (2007) argues that analytical and critical thinking skills help leaders be responsible for their surroundings. These surroundings are much bigger than the traditional boundaries of their organisations because all elements of a society can be involved in corporate practices. The viewpoint expressed by the majority of interviewed educators supports this argument. They believe that leaders who are equipped with leadership skills including analytical and critical thinking skills can understand current and possible scenarios relevant their decisions, and so they contribute more effectively to solving global and local problems, whether directly or indirectly. EP2 suggests:

...here I'd like to highlight that students' perception of sustainability accounting will be expanded gradually over time. Practising sustainability accounting and analysing situations under a critical thinking lens will contribute significantly to solving complex issues of sustainability in Jordan and worldwide. At least, some of our students absolutely will occupy some critical positions in future. If they took sustainability issues in their decisions, they would change the mind of their businesses to consider current or potential social and environmental problems, which is a massive positive contribution to the country.

This accounting educator indicates that sustainability accounting education will have a significant impact on current accounting students and that the sustainability accounting education will be a starting point for a long journey of sustainability practices in students' careers as future leaders. EP2 also believes that sustainability accounting education will help future leaders (today's students) change the 'business as usual' modus operandi and lead them to consider sustainability practices as an essential part of overall corporate practices. Educators argue that this will be the most significant contribution of sustainability accounting education in Jordan because changing businesses' traditional way of thinking is the way to solve current and potential sustainability problems. Lamont and Molnár (2002) and Adams et al. (2011) argue that sustainability accounting education prepares students to think critically on how to change the way their organisations think about running the business.

8.4.1.2 Knowledge and skills development: Industry's view

The majority of the industrial practitioners believe that sustainability accounting education will develop new knowledge areas in accounting students. These participants believe that sustainability accounting education, if adopted, should enhance the role of management accounting in improving sustainability practices through the concept of environmental management accounting. IP4 opines:

I believe that management accountants play a prominent role in decision-making in organisations. Decision-makers need a source of information to make the best appropriate decision. Management accountants are this source of information. Decision-makers are guided by the quality of the information provided by management accountants. Management accountants sometimes contribute to saving the organisation from significant financial losses by emphasising the importance of committing to the concept of sustainability and protecting the environment and its natural resources from depletion.

IP4 highlights the key role of management accounting in the decision-making process. Unlike management accounting, environmental management accounting will be a completely new area of knowledge for Jordanian accounting students. Wahyuni (2009) argues that environmental management accounting is a key tool that affects the decision-making process. According to the IP interviewees, accounting students need to explore this area of knowledge so that they can make good decisions in future.

IP4 further elaborates:

Unfortunately, we can view the role of environmental management accounting clearly only in developed countries. Many companies in developed countries adhere to environmental standards in their industries. For example, Scania, the Swedish manufacturer of cars that has obtained a huge reputation due to its sustainable practices in which environmental management accountants helped top management achieve huge profits through sustainability practices. On the contrary, see what happened to the German company Volkswagen. This company breached the European environment standards through manipulation of specifications. This scandal became a worldwide sensation and incurred loss of reputation that led to a loss in financial performance.

IP4 emphasises his concern over current management practices and how future management accountants can be impacted without awareness of sustainability accounting concerns:

This environmental scandal was due to bad management practices at that time when the company was unaware of the importance of involving environmental management accountants in their decision-making process. Our future management accountants should be aware of such cases and their impact worldwide. I am sure that students today, if they study a course on sustainability accounting, will be able to detect many different practices in the Jordanian market

that are quite similar to what Volkswagen did. I wouldn't specify companies' names but go and investigate, for example, what is happening generally in the cement and phosphate companies.

IP4 highlights an important area of knowledge that students would acquire if they studied sustainability accounting and the importance of making decisions based on information obtained from environmental management accountants. The example cited by IP4 relates to the case where the Environmental Protection Agency (EPA) found that many Volkswagen vehicles being sold in the USA had a hidden defect in their engines that could have been detected during the engine testing stage and changed accordingly to improve results (Hotten, 2015). The German car giant has since admitted cheating on test results in the USA (Hotten, 2015).

This scandal has resulted in a series of overwhelmingly devastating consequences for direct and indirect Volkswagen stakeholders (Mansouri, 2016). Eventually, Volkswagen confessed that there have been irregularities in tests to measure carbon dioxide emissions levels. Martin Winterkorn (the CEO) said that his company had broken the trust of customers and the public, and he resigned (Hotten, 2015). The company should have followed different strategies, particularly in corporate governance and environmental management to avoid all these consequences (Endrikat, Hartmann, & Schreck, 2017). Mansouri (2016) noted that the company had been unable to allocate sufficient budgets to commit to the EPA standards, and this was a significant weakness in their approach in environmental management accounting.

The Volkswagen example shows the importance of environmental management accounting in improving decision-making. Prior studies argue that management has a key role in supporting sustainability practices using the tools of environmental management accounting (Ngwakwe, 2012; Schaltegger & Burritt, 2010; Wagner & Schaltegger, 2003). Management accounting enhances the quality of the information provided to decision-makers (Eccles & Krzus, 2010; Yakhou, 2012). Rahahleh and Sharairi (2008) note that, unfortunately, Jordan's industry suffers from a lack of environmental management accounting practices and implementations. The interview findings from industrial practitioners highlight this critical issue and the importance of accounting students' needing to develop this knowledge about environmental management accounting and that it can be done through sustainability accounting education.

When questioned about the skills required by accounting students, the majority of industrial practitioners suggest that sustainability accounting education should add different analytical skills other than the ones that accounting students already acquire from other accounting courses. IP3 states:

Well, I think current employees including myself have good analytical skills; however, we are not sure if the skills we have can serve sustainability practices. For example, I can analyse any business case and see if it is profitable or not, I can also prepare a feasibility study for any industrial project. I use management accounting and cost accounting for this purpose. However, I am not sure how employees can use analytical skills to support sustainability practices.

IP3 believes that traditional accounting education is unable to equip future leaders with the right type of analytical skills that support corporate sustainability practices, even though it does equip them with sufficient analytical skills to determine profitability and analyse financial cases. This issue was also highlighted by IP1 who suggests:

One important thing here I'd like to say, a sustainability accounting course should develop skills other than what is being taught in accounting courses; these skills should be different from the analytical skills developed, for example, by the financial statement analysis course.

The industry view asserts that the analytical skills developed by sustainability accounting education are assumed to serve the society and the environment rather than the corporate financial issues. Accordingly, one could argue that analytical skills can be divided into two parts whereby dealing with financial events requires analytical skills that are different from the ones required to analyse a nonfinancial event (e.g., sustainability information). These skills are required in addition to those analytical skills that may include the ability to measure nonfinancial events in a monetary unit.

Gray et al. (1994) argue that sustainability accounting education can equip students with analytical skills that help them deal specifically with the environmental and social dimensions of sustainability. Wahyuni (2009) argues that sustainability accounting education equips accounting students with the needed skills to analyse corporate social and environmental concerns using environmental and management accounting tools to make related decisions.

In contrast to the majority of industrial practitioners participating in this study, IP5 expressed a different viewpoint. He believes that even though sustainability accounting education is assumed to serve both the society and environment, it is more important to focus on the economic dimension of sustainability. In other words, the skills acquired should significantly address the needs of shareholders. IP5 comments:

...students should be able to analyse the impact of their sustainable decisions in the long term. These decisions may be for the interest of society and environment, but, at the same time, have a very dangerous impact on financial performance. It becomes critical for the coming leaders to have the exact right decision that considers the interests of not only the environment and society but also the financial

targets of the companies. In the end, we are not a non-profit organisation. Future leaders must be very skilful to know how to make the balance accurately between the company's needs and other needs, giving the priority to their workplace; otherwise, they will end up working in a charitable firm.

IP5 has a concern that sustainability accounting education will lead to increased corporate sustainability practices which, in turn, will impact on corporate financial performance. IP5 asserts that if sustainability accounting is taught it should not ignore the economic dimension of sustainability in favour of other dimensions (society and the environment). IP5 indicates that when taught sustainability accounting should strongly consider the balance between shareholders and stakeholders, something which requires very skilful accountants. It seems that IP5 tends to support the traditional accounting school of Friedman (1970), which argues that the ultimate goal of an organisation is to maximise profit.

8.4.1.3 Knowledge and skills development: Profession's view

Similarly, most interviewed participants from the accounting professional body believe that a course on sustainability accounting would benefit current and future accounting students in Jordan because a sustainability course can extend and develop students' areas of knowledge. PP1 states:

In my opinion, I feel that a course on sustainability accounting should teach students the way to observe sustainability practices, how to understand sustainability reporting, and how to make sure that what is written in such reports is the truth. Sustainability practices have a stronger presence in the banking sector than industry here in Jordan; however, nobody even professionally can actually investigate (audit) these sustainability practices to ensure their reliability.

PP1 indicates that stakeholders cannot trust current business sustainability reports in Jordan because these reports are not professionally audited. PP1 argues that even the auditing companies in Jordan do not know how to ensure that corporate sustainability practices and reports are not greenwashing. PP1, therefore, believes that sustainability accounting education should help accounting students understand ways to ensure the reliability of corporate sustainability reports. In other words, PP1 believes that sustainability accounting education should be about auditing sustainability reports.

Manetti and Becatti (2009) argue that the purpose of auditing sustainability reports is to express a professional opinion on the reliability of sustainability information provided by these reports. Auditing and assurance are a core subject in sustainability accounting. Perego and Kolk (2012) and Fagerström, Hartwig, and Cunningham (2017) argue that sustainability reporting is not a

random process. It should comply with specific standards and guidelines carefully published by, but not limited to, the GRI, IR, Sustainability Accounting Standard Board, the Fédération des Experts Comptables Européens, and the Institute of Social and Ethical AccountAbility.

In Jordan, there is a level of sustainability reporting in the industry sector, although it is weak and lacking appropriate disclosure (Hazaima et al., 2017). A study on the Jordanian industrial sector by Jubarah (2018) found that there is a role for external auditors in auditing the extent of compliance in disclosing the environmental, social, and economic dimensions of sustainability. The study found that the disclosure of the social dimension is high, compared to the remaining dimensions. However, the expectations of the Jordanian accounting profession are perhaps too high because Boiral, Heras-Saizarbitoria, and Brotherton (2019) argue that auditing sustainability reports, unlike financial auditing, is not necessarily based on well-recognised standards and well-established professional bodies with clear requirements in training and experience. The nonexistence of well-recognised standards with clear requirements may confuse accounting students who lack basic knowledge on sustainability concepts.

When questioned about the skills required by accounting students, the majority of participants from the accounting profession believe that sustainability accounting education will develop students' communication skills including reporting skills. Research indicates that communication skills and reporting are important for the job of accounting. The traditional school of accounting requires accountants to communicate with internal stakeholders in the organisation (e.g., shareholders, management and other colleagues). However, today, accountants are responsible to all stakeholders, whether internal or external, and they have to communicate with most types of stakeholders one way or another to meet their expectations (Silva, Nuzum, & Schaltegger, 2019).

Bradfield (2009) argues that sustainability managers must have good communication skills for two reasons. First, they need to engage when speaking to small and large groups. Second, they need to deliver well-written reports that explain complex issues to “people who want the Cliffs Notes⁴⁰ version in plain English; it is essential to get to the point” (p. 375). Environmental managers are required to communicate technical issues to nontechnical stakeholders (Bradfield, 2009). PP2 asserts:

⁴⁰ Cliffs-Notes: A series of booklets with summaries and basic analyses of work.

...it must be taken into account that the corporate sustainability practices require management including accountants to deal with several groups of people.

PP2 highlights the importance to organisations of different groups of stakeholders. Moneva et al. (2006) argue that stakeholders are no less important than shareholders and that the stakeholders' perspective is gaining momentum; consequently, accounting practices have to address a broader set of stakeholders' views. Strong communication with those stakeholders requires good communication skills particularly in writing reports. Reporting is a major communication tool that accountants use to pass information to stakeholders (Burritt & Schaltegger, 2010). PP4 explains the importance of communication skills:

Well, I hope that a course on sustainability accounting improves the annual reports of companies. We do not audit nonfinancial information but I have read different annual reports as an auditor. I can tell that many reports are not well written, particularly, the reports of local organisations. I think managers or accountants cannot disclose information about corporate governance, CSR, and sustainability in a clear way for readers. They are, however, great at preparing financial statements and taxes.

PP2 also thinks that students need good communication skills:

...students should be able to simplify their sustainability reports in future to external users. They should be able to write their reports properly so that most people can understand the reports and be convinced of them.

It would appear that current practitioners are not sufficiently skilful in preparing reports that include nonfinancial information. The accounting profession interviewees believe that sustainability accounting education should enhance accounting students' communication skills, particularly, their report writing skills. Anderson (2012) argues that good communication skills are one of the most important characteristics of successful accountants and auditors because they need to report to internal and external stakeholders.

For example, accountants report to internal stakeholders (managers) about sustainability information obtained through sustainability accounting systems (Schaltegger & Burritt, 2010). Such reports should be well written so that managers can easily take a decision based on them. Auditors also communicate with managers and audit committees and discuss and make agreements about risks and internal controls (Yanti & Astuti, 2016). Thus, accounting students would benefit from sustainability accounting education as it enhances their communication skills of reporting to both internal and external stakeholders.

8.4.1.4 Knowledge and skills development: Government's view

Because the government participants are not accountants, their responses were more general and not directly related to accounting as a specialisation. Nevertheless, the two interviewed participants⁴¹ from the Ministry of Environment strongly believe that business schools in general ignore teaching students about corporate governance and the environmental laws and regulations. GP4, who has a managerial position at the Ministry of Environment, states:

My daughter is studying business administration at the University of... Once I asked her if she had learnt anything about the environmental laws that companies have to consider in their daily work. She had no idea about that! This is weird! I wonder how they (universities) teach business students the way to run a business without telling them about the relationship between businesses and government! Governments control businesses practices whether they (businessmen, employers and business educators) like it or not!

GP4 believes that the business programme is inadequate in preparing graduates for the business and government connection relating to the environment. Haddad, Sbeiti, and Qasim (2017) found that the relationship between businesses and governments is understood from a corporate governance perspective, but that this has a limited presence in the accounting curriculum, giving rise to further education adequacy issues. Nonfinancial governmental matters such as meeting the requirements of the ISO to cope with environmental laws is another issue that is ignored in businesses and accounting education:

Companies do not really appreciate our massive efforts of issuing suitable laws that protect the environment and society from being vulnerable to business practices. These laws are carefully developed but only a few businesses are aware of their implementations and long-term benefits... the sustainability course should make students understand, at least, some of our most important environmental laws and the reasons behind such laws. (GP3)

Seder and Abdel-Jabbar (2011) write that the Ministry of Environment in Jordan has issued a series of environmental laws to limit adverse corporate practices and protect the environment and natural resources from degradation and exploitation. Al-Zubi (2011) indicates that these laws and regulations are enacted to enhance sustainable development in the country. However, the current environmental consequences of business practices in Jordan⁴² can offer strong evidence that these laws are not implemented or are only superficially implemented.

⁴¹ The study had 5 government participants.

⁴² See chapter 2 for details about the environmental consequences of businesses in Jordan.

Interviewees from the government also believe that teaching sustainability matters will improve students' moral competencies and equip them with detection/investigative skills. GP1 explains:

Students (future employees) need to know how to pass information about inappropriate practices within companies. They should work as observers in the workplace and tell the government about illegal practices, which are in most cases hidden corporate practices. There must be a way for the course to convince students to cooperate with us in future for the interest of our society and environment.

GP1 believes that there are many “hidden corporate practices” that affect both the society and environment and that the government is unable to detect these practices. The interviewed educators also highlighted the issue of hidden corporate practices⁴³, which indicates that businesses have the power to manipulate practices without being accountable. GP1 hopes that the ability of students to discover the inappropriate hidden practices will be enhanced by sustainability accounting education. Sustainability accounting education should make students aware of the possibilities of such practices' existing in their future workplace and potential ways to detect such practices. GP4 suggests:

...students need to be able to detect smartly companies' bad practices that affect our society and the environment. I focus on the word 'smart' here. They should be very smart to detect the hidden practices that are unknown usually to most employees. I guess teaching sustainability helps students do so.

GP4 refers also to the hidden corporate practices that need to be investigated and disclosed by a skilful detective/investigator working in the organisation. The question in this case is how sustainability accounting education would help equip students with detection/investigative skills. The answer can be derived from the argument of Gray et al. (1994) and Chulián (2011) who argue that sustainability accounting boosts students' thinking about what is good or bad for their society and environment and how to protect them from being vulnerable to businesses' practices. The answer also can be derived from Boyce (2004) who argues that a course on sustainability accounting education urges students to realise the limitations of their work in future.

8.4.2 Students' Competitiveness in Future Markets: Educators' and Industry's Views

The majority of accounting educators and industrial practitioners participating in this study believe that sustainability accounting education will enhance students' ability to compete for a

⁴³ See chapter 7, corporate sustainability practices: Educators' view.

good job position in the market. They believe that this is an expected result of the knowledge and skills accounting students acquire from sustainability accounting education. EP19 comments:

I agree we don't have labour markets for sustainability accounting today. Nevertheless, I think within 10 years, companies in Jordan and other Middle Eastern countries will have to introduce new job titles that relate to both forensic and sustainability accounting. In one way or another, they have to cope with the global interest in sustainability issues in general. They cannot keep ignoring it forever. Students will be able to cope with these changes in future if they have studied sustainability accounting.

This accounting educator believes that sustainability practices have potential in the future for creating more job opportunities in the sustainability field. The interviewees perceived that potential candidates should have sufficient sustainability knowledge and skills to be able to compete for and occupy these new types of job positions. This view is supported by Bradfield (2009) who believes that integrating sustainability education into business schools' curricula is essential to prepare future business leaders able to make a career in sustainability and occupy future potential positions in the area of sustainability such as a Corporate Director of Environmental Affairs.

The majority of educators participating in this study believe that Jordanian corporate sustainability practices will help Jordan to cope with the global market and demands. Accordingly, future job requirements will be different from those of today. Meeting changing needs and demands requires education to better prepare students. EP9 states that:

As long as companies are not separated from their milieu, they have to keep their eyes on the social and environmental aspects. These companies know that one day they will have to meet the global market's requirements, which is under massive pressure from global societies and NGOs. I optimistically believe that the near future of our Jordanian industry will witness a big change in sustainability practices because the world is pushing toward such practices and sustainability is gaining power over time. We should prepare our students for this change to meet future requirements.

EP9 supports the view that corporate sustainability practices are global but also affect corporate sustainability practices locally (in Jordan). For example, Renner, Sweeney, and Kubit (2008) argue that there has been an international transformation in corporate practices whereby organisations are adopting low carbon and sustainable economic strategies. This shift has created more green jobs in both developed and developing nations (Renner et al., 2008). This global and local future improvement of corporate sustainability practices will require a reconsideration to how well prepared accounting students are to address these improvements.

Frank et al. (2011) believe that a growing number of employers are now looking for graduates with sustainability-related knowledge and skills who are able to propose new ideas regarding positive environmental initiatives that are compatible with profitable business practices.

The industry's view is slightly different from the educators' view in that the majority of industrial practitioners highlight the students' competitiveness in global markets but not in Jordan's local markets. IP4 mentions:

Sustainability accounting will enhance students' marketability and competitiveness in getting a job in the international market, where sustainability practices exist.

IP4 does not think that sustainability practices implementation will evolve in developing countries. He believes that sustainability accounting education will increase students' competitiveness in the global market, particularly in developed countries, where the interest in sustainability issues is stronger. IP4 indicates that sustainability accounting education can help accounting students who plan to occupy job positions in international organisations to be competitive internationally. The next section discusses the social and environmental benefits.

8.5 Social and Environmental Benefits

The findings indicate that sustainability accounting education will bring benefits by enhancing not only the accounting education curriculum, but also students' knowledge and skills. Such benefits will also flow ultimately to both society and the environment indirectly. This is a logical benefit of integrating the social and environmental dimensions into accounting students' thinking. Gray and Collison (2002), Peoples (2009), and Chulián (2011) argue that today's students and the leaders of tomorrow are an integral part of their surroundings and so their behaviours influence their society and environment. Stakeholders participating in this study believe that sustainability accounting education will benefit both society and the environment.

The thematic analysis performed in this study highlighted four different related subthemes including corporate sustainability practices, social awareness and power, sustainability-related religious principles and prosperity, and transparency. The following sections discuss the different stakeholders' views on these benefits (subthemes).

8.5.1 Corporate Sustainability Practices: Educators', Industry's and Profession's Views

The majority of interviewed educators, industrial practitioners, and employees from the accounting profession believe that one of the most important benefits of sustainability accounting education in the long term is improving corporate sustainability practices through

a gradual increase in the corporate awareness and knowledge of sustainability issues. The interviewees perceive that this gradual increase will be due to the turnover rate in organisations where the retiring staff are replaced with new fresh graduates equipped with sustainability education. EP17 and EP19 posit:

Bearing in mind the current structure of the accounting study plan within Jordanian universities, our graduates will provide nothing to their companies in relation to sustainability issues. Thus, educating our students for sustainability is necessary. (EP17)

...these students will be considered more prepared and aware to apply sustainability accounting in companies in future compared with other predecessors in the labour market. (EP19)

These two educators explain that sustainability accounting education will help supply organisations with new job candidates (graduates) who have knowledge and a way of thinking that is different from that which exists currently in organisations. This finding is supported by Gray and Collison (2002) who believe that sustainability accounting education provides organisations with generations of accountants able to address the public interests and environment. They emphasise that sustainability accounting education improves sustainability practices, which directly benefits both the society and the environment. EP16 and EP19 clarify this idea:

...and sustainability accounting should help prepare students to be changing components in industrial companies to find better sustainability practices. As a result, its impact, in the long run, will be positively reflected in both ecology and society. (EP16)

If sustainability accounting has been provided and taught in the study plan for long periods and in a way appropriate to the Jordanian environment, then, in my opinion, the Jordanian corporate practices will radically change in the next 15 years and all the country will notice this change. (EP19)

These educators perceive that sustainability accounting education will lead to better future corporate sustainability practices, which in turn will lead to better social and environmental circumstances. EP11 and EP17 provide further support to this viewpoint:

Educating students about sustainability will produce a future generation able to implement sustainability in all institutions in Jordan including universities, companies, and governmental institutions. (EP11)

I think this is the intrinsic goal. Serving the society and environment is the meaning of providing such (sustainability) education. In Jordan, people are struggling with the blatant encroachments of corporations on the environment and society. I think educating students about sustainability will prepare them to feel and realise how

critical environmental and societal issues are and protect their society and environment from being vulnerable to bad corporate practices. (EP17)

The majority of interviewed educators perceive that sustainability education can bring change in the future at an institutional level in Jordan because accounting graduates, who are assumed to have studied sustainability accounting, work in all types of institutions (e.g., public and private sectors). They believe that future leaders who are equipped with sustainability education will be able to perceive the sensitivity of sustainability issues in the field and so improve corporate sustainability practices. Sharma (2000), Cordano et al. (2003), and Hahn and Reimsbach (2014) argue that sustainability education makes students more considerate of and sensitive to sustainability issues and suggest that future business leaders will appreciate corporate sustainability practices.

The views of both the industry and accounting profession also support the views of educators. Most industrial practitioners see sustainability accounting education as a way to improve corporate sustainability practices and so to protect society and the environment from being vulnerable to bad business practices. IP2 and IP1 respectively provide their viewpoints:

Teaching sustainability accounting can serve both the society and environment through the adequate understanding of sustainability implementations in different companies and so preserve the non-renewable resources, the optimal utilisation of these resources and achieve luxury for the community to have a better future.

...and guiding companies to practise what is good for their society and the surrounding environment.

These two industrial practitioners believe that corporate sustainability practices have a direct impact on society and the environment and that by improving these practices in the future through sustainability accounting education the social and environmental circumstances in Jordan will improve. This viewpoint is supported by Unerman (2003), Gray (2010), and Akisik and Gal (2011) who argue that organisations through their practices have a strong impact on societies and economies and the environment in which they operate.

The majority of the industrial practitioners also expect that society may benefit from improving the efficiency and effectiveness of current, weak sustainability practices. IP5 explains:

Most Jordanian companies have allocations for scientific research and sustainability. However, these companies cannot use allocations properly because they have no experience in sustainability and sustainability accounting. Therefore, these allocations are spent in any possible way only to prove the process of disbursement of the provision for the benefit of society and environment.

IP5 believes that in future sustainability accounting education will help organisations find new innovative ways of serving their society and environment and improving the current business sustainability practices. Khan (2011) argues that the lack of sustainability accounting education hinders implementation and understanding of corporate sustainability practices. Prior studies found that the weak and low level of current sustainability practices was due to deficiencies in the academic knowledge of practitioners (Christ & Burritt, 2013; Doorasamy, 2016). The interviewee findings overall indicate that sustainability accounting education is expected to improve the academic knowledge of future Jordanian leaders.

The majority of interviewees from the accounting profession also raised the issue of current weak practices and their impact on society. In their opinion, sustainability accounting education will help improve current sustainability practices and so reduce the gap between society's needs and corporate practices. PP5 comments:

I remember when I was working in the Audit Bureau of Jordan, the cement companies were allocating the amount of money to the municipality that belongs to the area in which they operate to compensate for the industrial negative effects in the city. However, such a method of compensation does not consider the best method as it allows for a high possibility of financial corruption. I think sustainability accounting experts can create more effective methods that enable the industry to serve its local ecology and society.

According to PP5 experts could improve current sustainability practices by helping to train these experts. The professional participants also believe that sustainability accounting education can influence corporates to become sustainable, without the need for governmental oversights. PP2 suggests:

...creating an internal awareness for companies about the importance of changing their approach of treating the society and environment without the need for laws and legislations' enforcements. Sustainability accounting helps companies be more responsible to stakeholders in general.

PP2 believes that sustainability accounting education in the long term will raise internal awareness in organisations to the extent that there will be no need for legal enforcements that require companies to practise sustainability. Prior studies indicate that there needs to be a revolution here in the way of thinking and perceiving matters (Deegan, 2002; Haskin & Burke, 2016; Su & Chang, 2010).

8.5.2 Social Awareness and Power: Educators' and Government's Views

The majority of the educators and government employees in this study believe that the Jordanian society will benefit from sustainability accounting education through increasing

societal awareness and power. This increased awareness, in turn, they believe, will limit adverse corporate practices. This viewpoint supports the social challenges discussed in chapter 7 where it was found that the lack of sustainability practices and education is due to a lack of social awareness and power. Both the educators and government interviewees perceive that sustainability accounting education will increase social awareness in future and strengthen the society's position in encountering bad corporate practices. Educators strongly support this stance. For example, EP12 and EP19 argue that:

...there will be a significant impact on the environment and society in the long term, where the level of public awareness will be raised, which necessarily leads to monitoring companies' behaviour and assessing their social and environmental performance. (EP12)

...and social solidarity will increase. As a result, companies will have to change their reluctant way of serving society and improve the quality and types of services. (EP19)

The educators believe that societies are salient stakeholders because they are not only influenced by corporate practices but can also influence these practices. This idea is supported by the salient stakeholder theory where managers are assumed to give priority to society's needs due to its power, legitimacy, and urgent claims. According to Mitchell et al. (1997), society is a 'dominant stakeholder' in that it possesses both power and legitimacy attributes.

Thus, if society has urgent claims (e.g., to integrate sustainability education into the accounting curriculum, and to improve corporate sustainability practices), it becomes, according to Mitchell et al. (1997), a 'definitive stakeholder' possessing the three attributes of power, legitimacy, and urgency. Consequently, society has a high level of salience to influence both managers' decisions around corporate sustainability practices and education providers' decisions around integrating sustainability education into business schools' curricula. Sustainability accounting education will help activate society's salient role in influencing current business practices.

Most Jordanian government interviewees also support the educators' views. They highlighted the level of social awareness and power as a major benefit of integrating sustainability education into the accounting curriculum. GP1 and GP3 state:

There is no doubt that teaching sustainability will help society's members distinguish between companies that are environmentally friendly and those that are not. This distinction will make people leave companies with bad practices and deal with environmentally friendly ones. (GP1)

I think society will be able to help the government prevent bad practices of companies because society will dislike dealing with such hazardous companies. This forces these companies to consider social and environmental aspects while running the business. (GP3)

The government interviewees are aware of society's key role in pushing business organisations towards better corporate sustainability practices. They indicate that society possesses power and legitimacy to change corporate practices to meet society's needs (claims). These interviewees, however, believe that the Jordanian society is unaware of its salient role as a definitive stakeholder and that sustainability accounting education can help increase the needed social awareness. Deegan (2002) argues that societies have a dominant role in influencing business practices. Siltaoja and Onkila (2013) indicate that society should be aware of its role in the business realm to ensure that corporate practices meet their needs and claims.

8.5.3 Sustainability-related Religious Principles: Educators', Government's, and Students' Views

The majority of interviewed educators, government employees, and students believe that sustainability accounting education will deepen religious faith and develop spiritual values in the society and that this will lead to better sustainability practices at not only the institutional level but also an individual level. Jordanian tertiary education aims to deepen the Islamic faith and develop spiritual values (Ministry of Higher Education and Scientific Research, 2016b). The majority of the participating accounting educators believe that sustainability education and religions are compatible because both focus on environmental and social issues. EP6 comments:

Religions have a great role in influencing the preservation of the environment and serving the community. There are countless examples supporting sustainability from the Holy Quran, Hadith, Bible, and Torah, especially in the Middle East and Jordan where the culture of people is very much dependent on religions, and their practices are closely linked to it. Therefore, this aspect and its active role in sustainability should not be underestimated. Religions in the Middle East establish a philosophy of accountability and sustainability.

EP6 perceives that sustainability practices link to the good deeds required by religions. Alpay, Özdemir, and Demirbaş (2013) indicate that all divine religions encourage people to keep their environment safe and clean and ask people to seek goodness while dealing with each other. These beliefs indicate that clarifying the link between religions and sustainability practices can be a catalyst for accounting students to study more about sustainability issues and practise sustainability in their future workplace because, as Robbins and Rubin (2013) suggest, these

students are an important and integral part of their society where religions, cultures, and traditions have a top priority.

One can, therefore, argue that Middle Eastern societies including Jordanian society will benefit from sustainability education because it will help Jordanians to uphold their religious principles and in doing so protect the environment and increase the good deeds in societies.

Government interviewees also support the educators' views. They believe that sustainability education will help mitigate environmental disasters in Jordan, particularly in important and holy places such as the River of Jordan. GP3 posits:

I just hope that sustainability education alerts students of the importance and sensitivity of the River of Jordan to Christian people. This is a very holy place but full of pollutions! Many companies use the river to eliminate their waste! This also impacts on religious tourism.

The government's participant highlights a significant concern regarding the impact of bad corporate practices on Jordan's holy places. The River Jordan is a holy place for both Christians and Jews as Jesus once passed through it and used its water. However, the river is incredibly polluted and that has affected the religious tourism in Jordan and saddened religious people (Alshawabka, 2019; ECOPEACE/Friends of the Earth Middle East (FoEME), 2014b). GP3 hopes that showing accounting students the consequences of corporate practices on the River Jordan will encourage them to protect such holy places from being vulnerable to bad corporate practices in the future. Doing so will benefit not only Jordanian society but also religious tourism.

A number of accounting students participating in this study believe that religions can work as a driver of better sustainability practices. SP9 mentions:

If sustainability means to protect the environment, fight poverty, and bring more justice, then sustainability is not a new idea but only a new word. Even in primary and high schools, we (students) were taught that God loves those who are considerate to their surroundings, people, animals, and plants.

This student believes that the Jordanian society appreciates the sustainability idea because it is supported by religions and that those who practise sustainability actually worship God through their sustainability practices. This finding indicates that sustainability accounting education is a socially accepted/desired norm and so provides educational providers with the right (legitimacy) to adopt it. According to Mitchell et al. (1997), salient stakeholders possess the legitimacy attribute if their decisions are within a society's socially accepted norms.

8.5.4 Prosperity and Transparency: Educators' View

As shown in chapter 6 (questionnaire findings), salient stakeholders believe that the most important role of sustainability accounting education is to highlight and underpin the need for accountability and transparency in business practices that will lead to more prosperity in the Jordanian society. The majority of interviewed educators also reconfirmed this important role for sustainability accounting education as a benefit to Jordanian society. They believe that a lack of transparency and accountability is leading to the lack of prosperity in the country. EP10 argues:

Accountants are the link between the decision-maker in companies and the environment and society. Accountants work as a lens that enables the society to see and realise the nature and consequences of companies' practices. This, in turn, enables the society to practise accountability on these companies. If we (Jordanian people) really want to improve our standards of living, we have to look for ways to improve accountability in all institutions in the country.

EP10 believes that accountability is a way to achieve prosperity in Jordan. He indicates that accounting helps society practise accountability because accountants are responsible for disclosing corporate practices to society. In other words, EP10 is trying to say that accounting plays a vital role in helping the society practise accountability because accounting passes on important social and environmental information to related stakeholders who then exert pressure (accountability) on organisations to correct their inappropriate practices. As a result, this accountability leads to higher standards of living (e.g., less corruption, better corporate governance, and environmental protection).

These findings are reinforced by Gray (1992) who suggests that accounting is a tool to create accountability and transparency. Further, Deegan and Gordon (1996) believe that accountability helps create a just society among business organisations. They argue that accountability is an important strategy to legitimise corporate existence if social and environmental needs are not met. Scott et al. (2012) argue that integrating sustainability into main business schools' curricula will result in a higher quality of life because sustainability education is a way to enhance accountability. Jordan suffers from a lack of accountability, particularly public accountability and unequal distribution of power (Jreisat, 2018). Thus, most interviewed educators believe that integrating sustainability education into the accounting curriculum will help the Jordanian society perceive its dominant role in practising accountability.

However, one interviewed educator argues that sustainability education will not be effective in changing the status quo radically, as he believes that this change requires time and outstanding collaborative efforts on the part of stakeholders who actually do not want to change. EP7 argues:

Look! I cannot deny that education including sustainability education is important to improve the world including Jordan. But, don't be (the researcher) too optimistic in your view! The implementation of accountability, corporate governance, transparency, and any other related terms are influenced by too many factors other than education. Companies as well as any other institutions know what is right and wrong but they simply do what meets their interests whether it is right or wrong. The lack of sustainability education is not the reason for the lack of good practices. What is in the real world is much different from what is in textbooks and research papers! I encourage you (the researcher) to go ahead but don't expect much change to the current situation of the third world countries because they simply don't want to change.

EP7 suggests that sustainability education can have a role in societies' development and prosperity, but strongly believes that this role will not be important at all because it will not bring a radical change to the status quo of developing countries. Viewpoints such as EP7's have been noted in prior studies. For example, McKernan (2007) argued that the issue of sustainability is not seriously important and will lose its momentum over time. Nevertheless, the overall findings of this study are against EP7's argument. Numerous prior studies have highlighted the importance of sustainability practices and education in enhancing social accountability (see, for example, Gray, 2019; Gray et al., 2014).

8.6 Summary

This chapter addressed the study's third research question: What are the challenges and benefits of integrating sustainability education into the Jordanian accounting curriculum? The chapter particularly addressed the benefits of integrating sustainability education into the accounting curriculum in Jordan. This chapter found that Jordan is expected to benefit from the integration of sustainability into the accounting education.

Both the educators and industrial practitioners who participated in this study believe that integrating sustainability education into the accounting curriculum will benefit the curriculum itself as doing so enhances its comprehensiveness, competitiveness, and reputation. The views of educators, industrial practitioners, accounting professionals, and government indicate that this integration will benefit accounting students through developing the knowledge and skills required to treat sustainability issues in their future workplaces.

According to both educators and industrial practitioners, students' competitiveness in future markets will become enhanced. Interviewees also believed that sustainability accounting education will benefit the overall society and environment in Jordan. The views of educators, industrial practitioners, and the accounting profession indicate that sustainability accounting education leads to better future corporate sustainability practices, which then reflect positively on the overall conditions of society.

In addition, the views of both educators and the government suggest that sustainability accounting education will increase the social awareness in Jordan and so help society wield the power to change adverse corporate practices. Their views, along with students' views, indicate that sustainability accounting education will strengthen commitment to the religious principles that support sustainability issues. Lastly, the educators' view suggests that sustainability accounting education will bring more prosperity and transparency to the country overall. The next chapter develops a salient stakeholder-driven model to integrate sustainability education into the accounting curriculum and addresses the final research question in this study: How can an integrated sustainability accounting model be developed in the Jordanian accounting curriculum?

Chapter 9

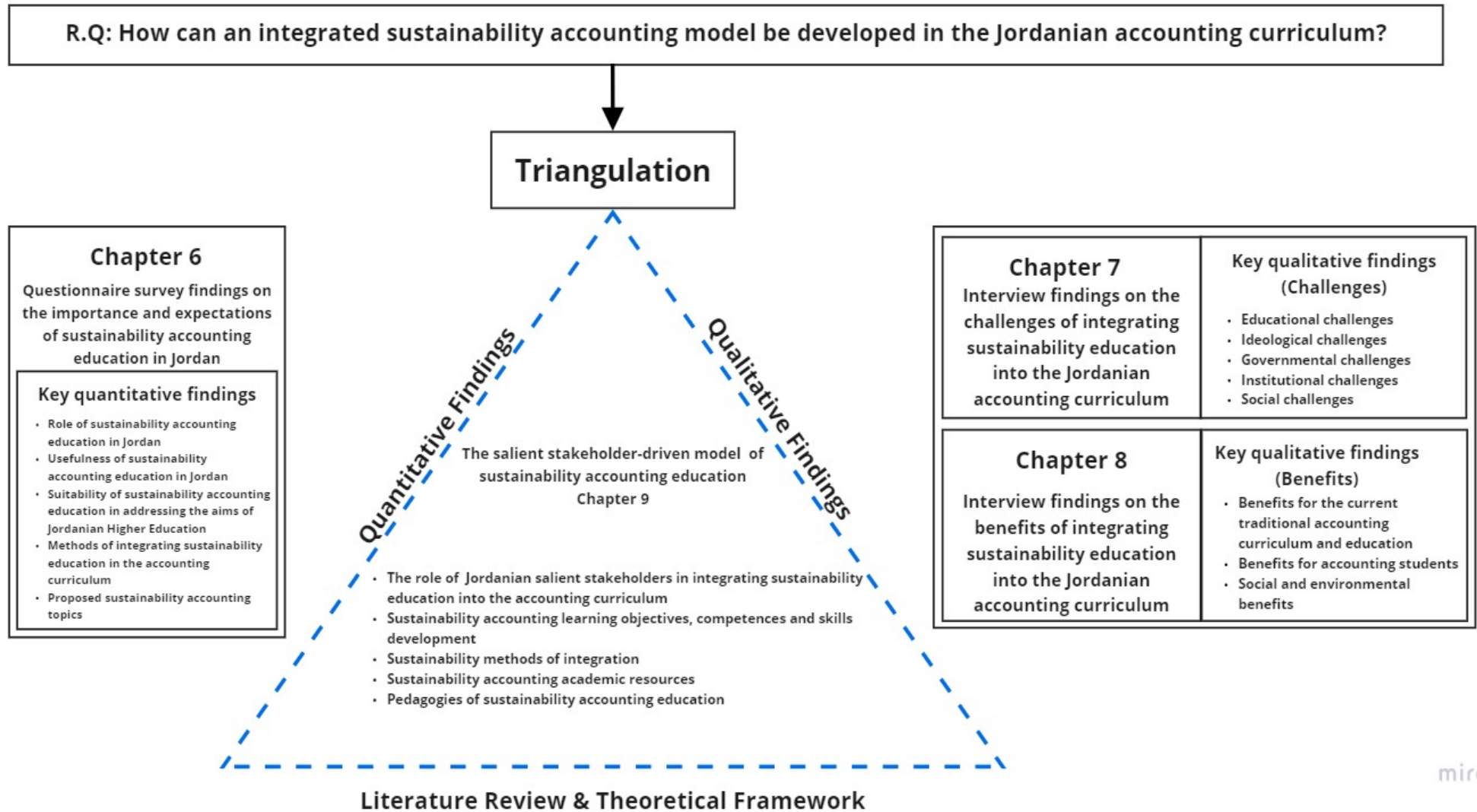
Integrating Sustainability Education into the Jordanian Tertiary Accounting Curriculum: A Salient Stakeholder-driven Model

9.1 Introduction

This chapter triangulates the findings of chapters 6, 7, and 8 to identify the Jordanian salient stakeholders' key perceptions on the integration of sustainability education into the accounting curriculum. A methodological triangulation is used where both quantitative and qualitative methods have been adopted to conduct the study. The researcher also adopts data triangulation in which he collects data from different resources. The purpose of this study's triangulation is to converge quantitative and qualitative data to develop a salient stakeholder-driven model of sustainability accounting education in Jordan (see Methodology and Method chapter). Based on the triangulation, the chapter develops a salient stakeholder-driven model to integrate sustainability education into the Jordanian tertiary accounting curriculum. In so doing, it addresses the last research question of this study: How can an integrated sustainability accounting model be developed in the Jordanian accounting curriculum? The model developed in this chapter integrates sustainability education into the accounting curriculum by considering both the influence and needs of different salient stakeholders in Jordan. Stakeholders' influence is understood in this study through stakeholders' role in integrating sustainability education into the accounting curriculum. The model was developed in light of both the literature review and the theoretical framework developed for this study.

The chapter develops the model through discussion of the following issues: 1. the Jordanian salient stakeholders and the integration of sustainability education into the accounting curriculum in terms of the influence of the Jordanian salient stakeholders on the integration process; 2. the necessary learning objectives, competencies, and skills development, and related sustainability areas of knowledge; 3. the methods required to integrate sustainability education into the accounting curriculum; 4. the academic resources needed for sustainability accounting education; and, 5. teaching and learning pedagogies and students' performance assessment. The chapter then develops the model and concludes with a summary. The following conceptual map (Figure 9.1) shows how the triangulation was used to develop the salient stakeholder-driven model of sustainability accounting education in Jordan.

Figure 9.1 Conceptual Map of the Salient Stakeholder-driven Model of Sustainability Accounting Education in Jordan



Source: Author

9.2 Jordanian Salient Stakeholders' Roles in the Integration of Sustainability Education into the Accounting Curriculum

Table 9.1 provides a summary of how salient stakeholders' attributes are currently distributed amongst the Jordanian salient stakeholders according to the findings of the study, and how they should be distributed according to the literature and the theoretical developed framework of this study to facilitate the salient stakeholders' involvement in integrating sustainability education into the accounting curriculum within Jordan's universities. Table 9.1 shows the triangulation of the findings, literature review, and theoretical framework in terms of the roles of salient stakeholders regarding sustainability integration into the accounting curriculum in Jordan and what they should be to be successfully involve in the integration process.

Table 9.1 *Jordanian Salient Stakeholders' Roles in Integrating Sustainability Education into the Accounting Curriculum*⁴⁴

Stakeholder	Current situation (Findings)	Expected (needed) situation (The Literature)	Stakeholders' involvement in the integration process (Theoretical Framework)
Accounting Educators	Dependent (Legitimacy & Urgency)	Definitive (Power, Legitimacy & Urgency)	Autonomy
Business Organisations (Industry)	Dangerous (Power & Urgency)	Dependent (Legitimacy & Urgency)	External Guidance
Accounting Profession	Discretionary (Legitimacy)	Dependent (Legitimacy & Urgency)	External Guidance
Government (Ministry of Higher Education and HEAC)	Definitive (Power, Legitimacy & Urgency)	Dependent (Legitimacy & Urgency)	Control
Accounting Students	Nonstakeholders	Demanding (Urgency)	Internal Guidance

Source: Author

⁴⁴ Key words that relate to salient stakeholders' roles have been italicised in the discussion of this chapter.

Table 9.1 shows that salient stakeholders should play specific roles for sustainability education to be integrated into the accounting curriculum in Jordan. Educators should have *autonomy* to make the integration decision and to be able to plan for it. Both business and the accounting profession should *guide* the integration process *externally* by providing educators with their suggestions and their needs for sustainability accounting education. The government should *control* only general education policies and give *autonomy* to educators to integrate sustainability education into the accounting curriculum. Students should *guide* the sustainability integration process *internally* by giving their educators feedback on the educational process of sustainability accounting.

However, these Jordanian salient stakeholders need to have an appropriate distribution of *power*, *legitimacy*, and *urgency* to be able to become involved in the process in the right way. It is currently challenging to integrate sustainability education into the accounting curriculum in Jordan because of the inappropriate distribution of *power*, *legitimacy*, and *urgency* amongst Jordanian salient stakeholders. The triangulation of findings concludes that currently educators possess *legitimacy* and *urgency* (*dependent*); businesses have *power* and *urgency* (*dangerous*); the accounting profession has *legitimacy* only from the society (*discretionary*); and, the government possesses the three attributes of *power*, *legitimacy* and *urgency*, whereas students own none of these attributes. However, the literature and theoretical framework suggest that accounting educators should possess the three attributes of *power*, *legitimacy* and *urgency* (*definitive*); businesses, the accounting profession, and the government should possess *legitimacy* and *urgency* (*dependent*); and, accounting students should possess the *urgency* attribute (*demanding*). The following discussion provides the details of the triangulation that led to the results in Table 9.1.

The statistical findings in chapter 6 indicate that there is a concern that both businesses and the accounting profession lack a role in supporting sustainability. The overall view of the participating stakeholders suggests that it is important to integrate sustainability education into the accounting curriculum because it will ‘enhance the future sustainability practices of industries’ (Mean (M) for overall stakeholders = 4.05, i.e., important). However, business organisations do not support sustainability practices or sustainability education. One participating industrial practitioner (code: Ind21, questionnaire survey part 7) indicated that teaching sustainability accounting is useless because corporate sustainability practices are ignored and not implemented in Jordan. This finding indicates that business organisations are inactive in supporting sustainability accounting education and practices.

With regard to the accounting profession's role, the overall view of the participating stakeholders suggests that integrating sustainability education into the accounting curriculum is important because it will 'change the focus of the accounting profession away from financial accounting only and towards the inclusion of nonfinancial accounting' (M for overall stakeholders = 3.56, important). It is understood from this quantitative finding that the overall view of stakeholders is that the accounting profession is not playing its role effectively in supporting sustainability accounting education because the profession's current focus is merely on financial (traditional) accounting.

The institutional challenges explored in chapter 7 (qualitative findings) focused on the inactive role of salient stakeholders in supporting sustainability accounting education. These findings show that while the educators support sustainability accounting education, this support remains theoretical and the integration of sustainability education into the accounting curriculum is beyond their control. In other words, educators lack the *power* to integrate sustainability education into the accounting curriculum. Educators believe that their lack of *power* is due to the *definitive* role of the government in strictly *controlling* the accounting curriculum. Cooperation is, therefore, required from other stakeholders to stand up to the government's *definitive* role⁴⁵. According to the educators' view, the integration process necessitates cooperation from other salient stakeholders including business organisations and the accounting profession.

The institutional challenges show that the educators believe that other stakeholders discourage educators' support of sustainability accounting education. These stakeholders are, in particular, the accounting profession and employers (industrial organisations). The educators argue that both the accounting profession and employers have a critical role in pushing for the integration of sustainability education into the accounting curriculum. For example, the findings of chapter 7 show that the majority of educators argue that the accounting profession can highlight the importance of sustainability accounting by including it in their professional exams. They also suggest that employers should require sustainability accounting knowledge and skills in their recruitment process so that they improve their corporate practices. The literature supports the qualitative findings of the educators and underpins the important role of the accounting profession and business organisations in supporting sustainability accounting practices and

⁴⁵ The government's *definitive* role is found to be a major challenge as explained later in this section.

education (see, for example, Deegan, 2002; Frank et al., 2011; Gray, 2019; Gray & Bebbington, 2001; Ngwakwe, 2012; Schaltegger & Burritt, 2010; Tingey-Holyoak & Burritt, 2009).

The statistical findings of chapter 6, however, indicate that the industrial practitioners' stance reveals not only a lack of awareness of their important role in supporting sustainability education and practices but also an unwillingness to integrate sustainability education into the accounting curriculum. These statistical findings show that the industry group of participants is less supportive towards integrating sustainability education into the accounting curriculum than the groups are: i.e., educators, accounting professionals, and the government (M for industry regarding the methods of integration i.e., the entire part 5 of the questionnaire survey is = 3.63, compared to 3.82, 3.75, and 3.99 respectively).

Industry's stance reveals a claim not to support sustainability accounting education and industry's stance is supported by the institutional challenges. These challenges show that the view of industry (business organisations) contradicts the educators' view about the inactive role of businesses in supporting sustainability. These findings indicate that the industry's view suggests that integrating sustainability education into the accounting curriculum is not their responsibility at all. Industry tends to believe that its role in supporting sustainability accounting education is minor and confined to the social dimension of sustainability only. In the view of industry, industrial organisations are doing their best to serve the society and so are supporting sustainability education and practices.

The institutional challenges show that the accounting profession's view contradicts the views of both educators and industry. According to the accounting profession, both educators and industrial practitioners are not playing their roles effectively in supporting sustainability education and practices due to the lack of corporate sustainability practices and the traditional accounting curriculum currently adopted. The findings show that the accounting profession's view has also recognised the profession's important role in supporting sustainability accounting education and practice. In terms of the institutional challenges, the majority of participants from the accounting profession believe that the profession is not playing its role effectively as the profession focuses on financial (traditional) accounting (as evidenced in the statistical findings on the profession's role above).

The institutional challenges indicate also that most participants from the accounting profession believe that they, as a professional group, cannot influence the accounting curriculum and industrial sustainability practices as long as corporate practices are compatible with the IFRS

and GAAP. The requirements of these bodies could be a reason why the Jordanian accounting profession's focus is on only traditional accounting. This situation indicates not only that the local profession lacks *power* and *urgency* to influence accounting education but also that, as long as corporate practices meet the global profession's standards, the local profession is not concerned about this situation. Greenwood et al. (2002) argue that professional accounting bodies create legitimacy for corporate practices and so they should have power. Tingey-Holyoak and Burritt (2009) argue that professional accounting bodies can influence the accounting curriculum by giving accreditations to sustainability accounting courses and by determining the core and appropriate accounting courses.

As indicated above, there are clear conflicts and confusion amongst the findings on the three views of educators, industry, and profession about their roles in integrating sustainability education into the accounting curriculum in Jordan. The question which, therefore, arises from this discussion is: Why does this conflict exist in Jordan? This study next discusses three major reasons for this conflict and confusion. These are: the government's *definitive role*; and, the educators' *dependent role*; businesses' *dangerous role*; and, the accounting professions' *discretionary role*.

9.2.1 Government's Definitive Role and Educators' Dependent Role

First, the issue of *power* and *control* between educators and the government (Ministry of Higher Education and the HEAC) has led to this conflict and confusion. The findings reported in chapter 6 (questionnaire survey, part 7) highlighted this conflict where one participating educator (code: Edu9) indicated that universities cannot integrate sustainability education into the accounting curriculum unless the HEAC changes its requirements to include sustainability education. This finding shows that educators within Jordanian universities lack *power* to make a change and that they are *controlled* by the government.

The governmental challenges revealed in chapter 7 also strongly highlighted the debate between educators and the government. This conflict between educators and the government over possessing the *control* over the accounting curriculum has led educators to accuse other stakeholders of being inactive, and educators are calling for the profession and industry to assist and support their efforts to gain *control* over the accounting curriculum. The governmental challenges indicate that educators lack *control* over 'what they teach' and on 'how they teach', and so they lack the *power* to change and develop the accounting curriculum to meet the needs of the society and environment. The literature disagree with these findings about the educators'

lack of *control*. For example, Jongbloed et al. (2008) recognise educators as *definitive* stakeholders with the highest level of salience. Alves et al. (2010) argue that educators are an essential part of the educational process and should be *definitive* stakeholders since their absence from the educational process leaves universities unable to function.

Bui et al. (2017) believe that educators should have *power* due to their formal authority in student teaching and assessment and should have *legitimacy* due to their key role in the tertiary education process. Society also perceives educators as the most important group of stakeholders who officially teach university students. Bui et al. (2017) argue that educators should be able to exercise *autonomy* in their teaching practices and curriculum development and not be *controlled* by higher education institutions' managements and the government. Bui et al. (2017) also believe that educators should be able to address *urgent* claims because their policies are an important response to the claims of other stakeholders and the market.

Despite the educators' lack of *power*, *control*, and so *autonomy*, the statistical findings of chapter 6 indicate that educators in Jordan seemed to have the *legitimacy* to develop the accounting curriculum and include sustainability accounting in it. According to Mitchell et al. (1997), the *legitimacy* to make a decision is gained if the decision is socially accepted as a good deed, which was confirmed by the statistical findings. Overall, the participating stakeholders believe that sustainability accounting education will be useful for Jordan (the overall mean of total means of answers for the entire part 3 (usefulness of sustainability accounting education in Jordan) is = 3.70, important). This statistical finding is also supported by the qualitative findings of chapter 8 (benefits of sustainability accounting education). These qualitative findings show that sustainability accounting education carries different benefits for accounting education, accounting students, graduates, and the society and environment. These benefits give *legitimacy* to educators to decide to integrate sustainability education into the accounting curriculum.

Mitchell et al. (1997) suggest that *urgent* claims are those that are time-sensitive or important for the stakeholder. The statistical findings of chapter 6 indicate that educators have a major *urgent* claim, which is to integrate sustainability education into the accounting curriculum. They believe that integrating sustainability education into the accounting curriculum is important due to its key roles in Jordan (M for entire part 2 of the survey = 4.04), its usefulness (M for entire part 3 = 3.95), and, its suitability in addressing the aims of Jordanian higher education (M for entire part 4 = 3.78). These educators also indicate that they want to see

sustainability education integrated into the accounting curriculum (M for entire part 5 = 3.82), and they believe that the proposed sustainability accounting topics proffered in part 6 of the questionnaire survey are important (M for entire part 6 = 4.01). In other words, immediate action should be taken to start producing new generations with environmental and sustainability awareness and competencies, and so meet the educators' *urgent* claims.

The institutional challenges found in chapter 7 also indicate that educators in Jordan have the *urgency* attribute because they believe that there is a clear lack of corporate sustainability practices and there is a serious need to improve such practices through providing future leaders (current students) with sustainability accounting education. The qualitative findings of chapter 8 also support the *urgent* claims of educators in that the majority of educators believe that sustainability accounting education has various benefits that help Jordanian society mitigate the current and emerging environmental consequences of industry.

However, having *legitimacy* and *urgency* but being without *power* makes Jordanian educators appear to be *dependent* stakeholders who cannot bring change to the accounting curriculum. Powell and Walsh (2018) suggest that *dependent* stakeholders lack the *power* to achieve their will, although they have *urgent* and *legitimate* claims, and so they need to rely on others to carry out their will. In other words, any influence *dependent* stakeholders gain should be supported through the values of others. Therefore, the Jordanian educators initially seek help and support from the profession and industry accusing them of not activating their roles effectively as discussed above. Educators hope that, with the help of both the profession and businesses in Jordan, they can move from the *dependent* stakeholder level to the *definitive* stakeholder level and so add *power* to their *legitimacy* and *urgency*. According to Mitchell et al. (1997), *definitive* stakeholders are those who possess all three attributes of *power*, *legitimacy*, and *urgency*. As discussed above, the literature supports the educators' right to have *power*; however, if the Jordanian educators do not possess *power*—as this study found—then who does have it?

As the findings in chapter 6 show, the educators indicated that they are powerless to integrate sustainability education into the accounting curriculum because the government (HEAC) controls the accounting curriculum. The qualitative findings of chapter 7 support the educators' view as they highlight a key governmental challenge to sustainability accounting education in Jordan. This challenge is themed as *dominance* and *autonomy* in that most participating educators believe that the government in Jordan has absolute *control*, *power*, and *autonomy* in

decision-making relating to the accounting curriculum. It was found that this governmental challenge has led educators to consider only accounting courses that comply with the specific accounting fields of knowledge determined previously by the HEAC. The governmental challenges indicate that most educators believe that they are unable to integrate sustainability education into the accounting curriculum because sustainability accounting does not meet any of the accounting discipline's fields of knowledge imposed by the HEAC.

The triangulated findings, therefore, indicate that educators play only a teaching role in terms of meeting the governmental-educational policies of higher education. Educators are treated only as tools to prepare and deliver the contents of the courses predetermined by the Ministry of Higher Education and HEAC. The current Jordanian literature has recently found similar results to the governmental challenge found in this study. For example, Maali and Al-Attar (2020) found that accounting educators in Jordan are *powerless* to make the needed curriculum development because the government of Jordan *controls* the areas of knowledge for the accounting discipline and educators have to create accounting courses that deal only with these imposed areas of knowledge. They also found that the Jordanian government (Ministry of Higher Education and the HEAC) dispossesses the educators' decision-making *autonomy*.

The government of Jordan (Ministry of Higher Education and HEAC) also has a *legitimizing* role because, according to the Jordanian constitution, the government's mission is to legitimate and regulate the overall educational process including the primary, secondary, and tertiary (university) stages through the Ministry of Education and the Ministry of Higher Education (Hussein, 2014). For example, the Ministry of Higher Education sets the aims of Jordanian higher education and the related educational policies and regulations (Ministry of Higher Education and Scientific Research, 2016b). From the researcher's own experience in the context of Jordan, governmental regulations are obeyed, and most governmental actions seem to be socially accepted (which is the condition for having legitimacy), because the government (Prime Minister) is authorised and chosen directly by the King of Jordan.

Although the educators saw the role of the government of Jordan as a major challenge, the statistical findings in chapter 6 show that, overall, the participating stakeholders believe that sustainability accounting education can address the aims of higher education in Jordan (M for the entire part 4 (Sustainability accounting education addresses the aims of Higher Education in Jordan) = 3.56, i.e., important). This finding indicates that the government is supposed to support the educators' *power* and *legitimacy* to integrate sustainability education into the

accounting curriculum. The statistical findings also show that the government is a strong advocate for the issue of sustainability accounting education (M for the government = 4.32 for part 2 of the survey, 4.20 for part 3, 3.88 for part 4, 3.99 for part 5, and 4.20 for part 6, all higher than the means of other participating groups of stakeholders). This result indicates that the government has a strong willingness to integrate sustainability education into the accounting curriculum. If this is the case, the question of why the majority of educators highlight the government's role as a major challenge arises. This conflict between the quantitative and qualitative findings is explained next.

The government of Jordan has more *urgent* claims than implementing sustainability accounting education. Yapa (2003) argues that it is the responsibility of governments to meet the current market's needs for well-prepared graduates. Maali and Al-Attar (2020) found that the government of Jordan has a top priority and *urgent* claim in that business higher education must meet the traditional needs of business organisations (graduates who are able to maximise profit). This finding explains the educators' view noted above as to why sustainability accounting education does not fit the accounting discipline's fields of knowledge imposed by the HEAC. However, this discussion leads to an important question, i.e., why do the statistical findings of this study find a different *urgent* claim for the government in that sustainability accounting education does meet its higher education aims and the government is a strong advocate to sustainability accounting education? This issue is explained next.

Despite the governmental challenge found and highlighted by the educators, the findings in chapter 7 show that the government presents a contradictory view (the Ministry of Higher Education and HEAC). Chapter 7's findings on institutional challenges indicate that the government's view claims that educators have *power* and can influence the fields of knowledge and that they can integrate sustainability into the accounting curriculum. The government's view indicates that the fields of knowledge for the accounting discipline are determined by a committee of accounting experts who are all taken from universities and, therefore, are educators. It was also stated that the committee members are selected randomly by the HEAC only when needed (and are not a permanent body).

However, it can be noted here that this committee does not represent the large number of accounting educators working in the Jordanian universities; furthermore, when the committee is convened, it becomes part of a government body. Ngo (2014) argues that university-related panels/managements, if formed and chosen by the government, will be part of the government

body, even if they operate within the university campus. It seems that the government defence is weak compared to the educators' view and the Jordanian literature. It seems that the government only appears to support sustainability in accounting education.

The government should leave the matter of determining the accounting discipline's fields of knowledge to the accounting departments of Jordanian universities and lead the general educational process from an administrative perspective without interfering in academic issues. Alexander (2000) argues that governments should play an authoritative role instead of practising extreme *autonomy* and *control* over academic issues including study courses and programmes. Yapa (2003) and Seng (2009) believe that the government has an important authoritative role in observing the higher education institutions' performance and progress in light of the main governmental-educational policies. De Boer et al. (2007) argue that while governments represent state regulation, their role requires them to direct and regulate universities' behaviour without dispossessing educators' *power* to practise *autonomy* in decision-making.

The Ministry of Higher Education and the HEAC in Jordan should retain their *legitimacy* and *urgency* through regulating and supervising universities' progress. They should, however, reduce their *control* and *dominance* over academic matters including the areas of knowledge in the accounting curriculum. The findings suggest that the Jordanian Ministry of Higher Education and the HEAC should review their position as a *definitive* stakeholder and become a *dependent* stakeholder so that educators have the *autonomy* to integrate sustainability education into the accounting curriculum and make any further changes which they, as experts, feel are important. Importantly, the government should participate in the integration process by providing educators with *legitimizing* regulations and *urgent* claims but without exercising *power* over them.

Because any influence *dependent* stakeholders gain must be supported through the values of others (Powell & Walsh, 2018), the study's findings indicate that educators as *dependent* stakeholder must seek both the industry and the accounting profession's support to convince the government to remove its *definitive* role and to allow educators more *autonomy* in decision-making. The educators' call for the industry and profession's support point to the second and third reasons why there is conflict and confusion amongst the findings of the three views of educators, industry, and the profession about their roles in integrating sustainability education into the accounting curriculum in Jordan.

9.2.2 Businesses' Dangerous Role

Secondly, the statistical findings in chapter 6 indicate that industrial practitioners recognised the important role and the usefulness of sustainability accounting education in Jordan ($M = 3.98$ for entire part 2 and 3.89 for entire part 3 respectively). However, they were less motivated to support the proposed methods of integrating sustainability into the accounting curriculum ($M = 3.63$ for part 5). This finding indicates that when sustainability accounting education actually comes to the stage of implementing sustainability, industrial practitioners turn out to be less supportive of its integration, which means that sustainability accounting education is not a top priority for them.

The qualitative findings in chapter 7 indicate that businesses in Jordan influence the government's decision-making and policies to ensure that governmental decisions and policies prioritise the needs of business. Because education meets business' needs to have well-prepared graduates, businesses can influence governmental-educational policies. The institutional challenges discussed in chapter 7 indicate that business organisations in Jordan are more *powerful* than the government and can influence government policies and decisions. For example, the educators' view argues that the lack of corporate sustainability practices is due to the lack of government legislation and laws enforcement, which has affected the integration of sustainability education into the accounting curriculum. The educators' view highlights governmental weakness in dealing with business organisations in that most educators believe that the government has to meet the business needs and so ignores industry's environmental consequences so as to keep employers operating within the country's borders and so protect current investments.

The lack of corporate sustainability practices reported under the institutional challenges in chapter 7 indicates that business organisations currently are not interested in sustainability practices or sustainability education. Industries do not require sustainability knowledge and skills in their job applicants. This lack of corporate sustainability practices and the lack of sustainability accounting education indicate that businesses still focus on traditional accounting that aims to maximise shareholders' wealth. Accordingly, the Ministry of Higher Education and the HEAC have focused on accounting courses that aim to maximise profit and ignore sustainability education as an area of knowledge that is relevant to the accounting discipline.

Thus, it can be understood that the industry deliberately does not want to respond to the educators' call for support in asking the government to move from its current position as a

definitive stakeholder and to allow for more educator *autonomy* to integrate sustainability into the accounting curriculum because the government as a *definitive* stakeholder is serving the interests of businesses well. It seems that businesses in Jordan have the *power* to *control* the accounting curriculum, although this *control* is indirect and through the government. Business organisations have a right to seek graduates who meet their needs; however, these needs should not ignore others' rights to have good standards of living. Powell and Tilt (2017) believe that business organisations should think about creating new business models that help them become closer to sustainability. However, bringing about such a change requires that current employers and employees find a way to ensure the existence of future business leaders who are sustainability-educated.

Thus, Bui et al. (2017) argue that there is an alternative way to ensure the right of employers to meet their needs, i.e., by ensuring that employers can participate directly in universities' boards of administration and management. In this way, employers can gain *legitimacy* to influence the educational process (Bui et al., 2017). The findings, however, indicate that employers in Jordan prefer to influence the educational process through the government instead of attempting to participate directly in universities' boards of administration and management in a *legitimizing* way.

Businesses in Jordan do not have the *legitimacy* to influence the accounting curriculum directly for two reasons. First, they use the government as a *definitive* stakeholder to influence accounting education and curriculum, as discussed previously. Second, knowing that *legitimacy* is seen as a 'desirable social good' (Powell & Walsh, 2018), current corporate practices in Jordan are perceived as negative practices for both the society and environment (undesirable due to their lack of sustainability practices), which makes them untrustworthy in terms of their influence on accounting education. In other words, the lack of corporate sustainability practices forms a challenge and can negatively affect the accounting education in the same way that the current corporate practices negatively affect the environment and society. Thus, the Jordanian society will not give businesses the right to influence accounting education. Consequently, business organisations are left with both *power* (using the government as a tool) and *urgency* (meeting the needs of profit maximisation).

From the discussion on the current role of Jordanian businesses in influencing the accounting curriculum, business organisations in Jordan can be considered as *dangerous* stakeholders in that they possess both *power* and *urgency* as regards the accounting curriculum (without

legitimacy). Powell and Walsh (2018) argue that *dangerous* stakeholders use *coercive power*, which is often accompanied by socially *illegitimate* status. Business in Jordan should be more considerate of others' needs and rights and stop *coercing* the government to meet only its needs, which are undesirable for society. Businesses in Jordan have the *urgency* attribute but their *urgent* claims should match their rights to be supplied with graduates who can generate, but not simply maximise, profit.

Meanwhile, as mentioned before, Bui et al. (2017) support the *legitimizing* role of business in higher education through participation in universities' administrative boards. Consequently, businesses in Jordan, instead of using the government to meet their need to have graduates who are able to maximise shareholders' wealth only, should communicate with educators, university management, and the government to reach a solution that serves all stakeholders' interests. Businesses should help develop the accounting curriculum by playing an *external guidance* role whereby they provide educators with their recommendations and needs (De Boer et al., 2007). Moving the Jordanian government's position from being a *definitive* stakeholder to becoming a *dependent* stakeholder (as discussed before) will deprive businesses of the *power* attribute. Having both *legitimacy* and *urgency*, but without *power*, moves businesses from being *dangerous* stakeholders to becoming *dependent* stakeholders. Achieving this shift would help to integrate sustainability education into the accounting curriculum in Jordan.

9.2.3 The Accounting Profession's Discretionary Role

The third and last reason behind the conflict and confusion amongst the findings on the views of educators, industry, and the accounting profession about their roles in integrating sustainability education into the accounting curriculum in Jordan is related to the accounting profession's lack of a role in supporting sustainability accounting education in Jordan. The institutional challenges outlined in chapter 7 indicate that the Jordanian accounting profession is unable to effectively activate its role in supporting sustainability accounting education as it lacks *authoritative power* over development of the accounting curriculum (i.e., integrating sustainability into the accounting curriculum) and corporate practices.

These findings indicate that there are two reasons for the accounting profession's lack of *power*. First, the accounting profession worldwide does not mandate sustainability practices. As the institutional challenges in chapter 7 revealed the local professional accounting bodies are unable to include sustainability in their professional exams because they have to follow the accounting profession's global standards and principles (e.g., GAAP and IFRS). Second, it is

concluded that the businesses' influence over the government's educational policies and regulations (as discussed above) has contributed indirectly to the accounting profession's lack of *power* to support sustainability accounting education (in that the government, which is influenced by business, completely controls the curriculum). Consequently, the government is the only party responsible for meeting businesses' educational needs. These factors leave the accounting profession in Jordan unable to respond to the educators' call for support from the accounting profession and to push for developments to include sustainability education in the accounting curriculum.

The institutional challenges reported in chapter 7 indicate that the accounting profession in Jordan does not possess the *legitimacy* required to play a legitimating role in the development of the accounting curriculum. Nevertheless, this study argues that this profession's lack of *legitimacy* is due to the *definitive* role of the Jordanian government, whereas the Jordanian society grants *legitimacy* to the profession. This argument is supported by a triangulation of a number of the findings in chapters 6, 7, and 8. These are explored next.

The statistical findings reported in chapter 6 show that sustainability accounting education is important and useful for Jordan (M for entire parts 2 and 3 = respectively 3.76 and 3.70, important)⁴⁶. These statistical findings indicate that sustainability accounting education achieves the condition of *legitimacy* in that it is within Jordanian 'socially accepted norms. Thus, it can be argued that Jordanian society gives *legitimacy* to the accounting profession to push for the integration of sustainability education into the accounting curriculum.

However, chapter 7's findings show that the government's *control* over the accounting curriculum has given the accounting profession no space to participate in curriculum development. In other words, the government's *definitive* role makes the profession lose the *legitimacy* to participate. The qualitative findings in chapter 8 also support the statistical findings in that the majority of participants believe that sustainability accounting education will be useful not only for accounting students and education but also the overall society and environment through better future corporate sustainability practices.

Thus, it can be concluded that while the accounting profession in Jordan has the *legitimacy* attribute from society, it is unable to practise this *legitimacy* due to the government's *definitive* role. The literature supports the *legitimacy* of the profession and suggests that the accounting

⁴⁶ Parts 2 and 3 are respectively about the role and usefulness of sustainability accounting education in Jordan

profession has *legitimacy* from society to work as a regulatory agency that controls business practices and influence related educational disciplines such as accounting. For example, Greenwood et al. (2002) argue that professional bodies have a *legitimizing* role with regard to corporate practices. Powell and Walsh (2018) indicate that the accounting profession in developed countries such as the UK possesses the *legitimacy* attribute in that it grants accreditation to accounting education.

Concerning the issue of whether the Jordanian accounting profession possesses the *urgency* attribute, the findings of this study show that the participants from the profession presented contradictory perceptions. Chapter 6's statistical findings show that the accounting profession believes in the importance of sustainability accounting education in Jordan (M for the profession = 3.84 for part 2, 3.82 for part 3, 3.76 for part 4, 3.75 for part 5 and 3.93 for part 6, all important). In other words, these statistical findings indicate that the accounting profession in Jordan considers the integration of sustainability education into the accounting curriculum as an *urgent* claim due to its importance. However, the accounting profession, as reported in chapter 7 (institutional challenges), believes that the profession is doing its best and can do no more as long as corporate practices are compatible with international standards and education is meeting businesses' needs, even though there is no sustainability education. This view indicates that the profession has no *urgency* for immediate action toward including sustainability accounting education.

Thus, the Jordanian accounting profession does not possess the *urgency* attribute and remains inactive so long as corporate practices and accounting education continues to reflect the global profession's principles and regulations around traditional accounting. The literature contradicts this finding, as it suggests that the professional accounting body possesses the *urgency* attribute because of the successive calls for reforms in accounting education. For example, Bui and Porter (2010) and Webb and Chaffer (2016) argue that much of the reform to the accounting curriculum has been supported by calls from professional bodies worldwide. Such calls do not exist in Jordan.

On the basis of the above discussion about the profession's role, the accounting profession can be considered to be a *discretionary* stakeholder. Mitchell et al. (1997) identify *discretionary* stakeholders as those who possess only the *legitimacy* attribute. According to Powell and Walsh (2018), *discretionary* stakeholders have no *power* to change the status quo or *urgent* claims for this change. Powell and Walsh (2018) argue that there is no pressure to engage in a

relationship with *discretionary* stakeholders. To engage in a relationship with other stakeholders (government and educators in Jordan) and position itself between them, the accounting profession should possess the *urgency* attribute and enhance the *legitimacy* it has from Jordanian society (e.g., participate in the accreditation process of the accounting discipline).

As mentioned before, the literature supports the profession's role in reforming accounting curriculum through its calls for change and reform and its accreditation of the discipline (Bui & Porter, 2010; Webb & Chaffer, 2016). These successive calls for change show *urgency*, while the accreditation shows *legitimacy*. Possessing both *urgency* and *legitimacy*, the accounting profession will move from being a *discretionary* stakeholder to become a *dependent* stakeholder. The theoretical framework of this study also suggests that the accounting profession's participation in curriculum development should come through its important role in giving *external guidance* in that the profession should *guide* the integration process of sustainability accounting education *externally*. The accounting profession accordingly has the *legitimacy* to participate in goal setting and to offer advice to achieve its *urgent* claims (De Boer et al., 2007).

From the above discussion overall, this study concluded that there were three reasons why the conflict and confusion amongst the views of Jordanian salient stakeholders (government, educators, industry and profession) regarding their roles in integrating sustainability into the accounting curriculum was found. The government as a *definitive* stakeholder plays a *definitive* role and so exercises full *control* over the accounting curriculum. As a result, accounting educators lack the *autonomy* to integrate sustainability into the accounting curriculum. Their lack of *autonomy* is due to their lack of *power*, despite the fact that they have *legitimacy* and *urgent* claims. Consequently, educators constitute a *dependent* stakeholder.

Business organisations use the *definitive* role of the government as a tool to influence the accounting education indirectly. They practise *power* over the government in order to meet their *urgent* claims of having accounting graduates who are able only to maximise profit. They act like a *dangerous* stakeholder in that they have *power* and *urgency* to influence the accounting education, but not *legitimacy*. The accounting profession is unable to make a change despite its *legitimacy*. The findings suggest that it lacks *power* and its claims are not *urgent*. The accounting profession accordingly appears to be a *discretionary* stakeholder.

This discussion on the roles of Jordanian salient stakeholders (government, educators, businesses, and the accounting profession) can be summarised in the following way. The theoretical framework developed for this study (chapter 4) suggests that the Jordanian salient stakeholders should be involved in integrating sustainability education into the accounting curriculum in a specific scenario. According to this scenario, the government should only *control* general educational policies, educators should have *autonomy* to make decisions, and both business organisations and the accounting profession should *guide* the integration process *externally*.

The salient stakeholder theory and the literature review suggest that in order to reach this scenario, the government, business organisations, and the accounting profession should act like a *dependent* stakeholder (having only *legitimacy* and *urgency*) and the educators should act like *definitive* stakeholders (having *power*, *legitimacy*, and *urgency*). In this way, salient stakeholders in Jordan will be able to implement sustainability accounting education and raise a new generation of business leaders and owners who will not leave their country and go to operate businesses in countries with less environmental legislation and thus threaten the economic situation of Jordan.

However, the triangulation amongst the findings in chapter 6, 7, and 8 show that the government of Jordan is currently acting like a *definitive* stakeholder (having *power*, *legitimacy*, and *urgency*); the educators are acting like a *dependent* stakeholder (having only *legitimacy* and *urgency*); business organisations are acting like a *dangerous* stakeholder (having *power* and *urgency*); and, the accounting profession is acting like a *discretionary* stakeholder (having only *legitimacy*).

This study, therefore, concludes that there is a deep lack of synergies amongst Jordanian salient stakeholders and an inappropriate distribution of *power*, *legitimacy*, and *urgency*. The educators, the accounting profession, and the government should cooperate to see how they could meet not only the needs of business but also the society and environment's needs. This cooperation should also be in coordination with business organisations. As the party that can deal directly with other parties including the educators, the profession, and business organisations, the government should take a bold lead. The next section discusses the Jordanian students' role in integrating sustainability education into the accounting curriculum.

9.2.4 Accounting Students as Nonstakeholders

The statistical findings in chapter 6 show that the accounting students as a group of participating stakeholders are moderately aware of the importance of sustainability practices and education (M for student = 3.74 for part 2 of the questionnaire survey, 3.59 for part 3, 3.62 for part 4, and 3.59 for part 6, all important). These findings indicate that students have *urgent* claims to include sustainability education into the accounting curriculum. However, it was found that students were neutral towards the importance of the methods of integrating sustainability education into the accounting curriculum (M for students = 3.36 for part 5 of the questionnaire, neutral/moderately important). This result shows that the students are hesitant about studying sustainability accounting education.

This hesitation can be explained by the findings obtained from the open-ended question reported in chapter 6 and the educational challenges found in chapter 7. These findings show that students have a concern regarding the potential impact of sustainability accounting education on their academic performance. Accordingly, students may have claims towards sustainability practices but not education (e.g., accounting students' protests about climate change does not necessarily mean that they believe it is important to study sustainability accounting). As a result, it is concluded that accounting students in Jordan do not have *urgent* claims relating to the integration of sustainability education into the accounting curriculum, despite their slight awareness of the environmental issues surrounding them.

Chapter 7's analysis of the institutional challenges indicated that participating accounting students are aware of the current lack of corporate sustainability practices. However, the ideological challenges section in chapter 7 indicates that these students are unaware of the value relevance of sustainability accounting due to their lack of basic knowledge on sustainability accounting. The findings of chapter 8 show that the students tend to appreciate sustainability practices in terms of religious teaching. In other words, the students' view suggests that sustainability is part of the 'socially accepted norms', which provides them with the *legitimacy* to advocate for sustainability education. However, due to the *definitive* role that the government of Jordan plays in *controlling* the accounting curriculum, accounting students have no *power* or *legitimacy* to integrate sustainability education into the accounting curriculum.

Thus, the triangulation of findings shows that Jordanian accounting students lack the three attributes of *power*, *legitimacy*, and *urgency*. Powell and Walsh (2018) argue that students, despite being part of the educational process, have no or little influence over the curriculum.

They are simply receivers of knowledge. Mitchell et al. (1997) classify those who do not have *power*, *legitimacy*, or *urgency* as *nonstakeholders*. Powell and Walsh (2018) argue that these *nonstakeholders* (students) do not have any type of relationship with the issue (influencing the accounting curriculum). Nevertheless, the literature supports the students' *urgency*. Students can still contribute to and influence the accounting curriculum if they increase their awareness of sustainability issues and their role in pushing for a more adequate education.

Bui et al. (2017) argue that students are the heart of the educational process, that they are the leaders of the future, and that the world will depend on no one but them. Bui et al. (2017) believe that students can be influential in changing universities' actions. Bui et al. (2017) argue that students' claims can be *urgent* concerning sustainability education. Jordanian accounting students have to think about how to move from being *nonstakeholders* to be at least *demanding* stakeholders. Mitchell et al. (1997) refer to those who have *urgent* claims, despite their lack of *power* and *legitimacy*, as *demanding* stakeholders. De Boer et al. (2007) suggest that students can help to achieve their *urgent* claims by giving feedback and suggestions to education providers.

The theoretical framework developed for this study suggests that Jordanian accounting students' role as a salient stakeholder should be through *internal guidance* on the integration of sustainability education into the accounting curriculum, a role which requires them to become a *demanding* stakeholder. The next section discusses the required content of sustainability accounting education in Jordan. This content is discussed through the learning objectives that it should achieve and the competencies and skills that it should develop.

9.3 Sustainability Accounting Learning Objectives, Competencies and Skills Development

The views of participating stakeholders found in chapter 8 suggest that sustainability accounting education will benefit accounting students. These views highlight the stakeholders' needs and the outcomes they expect from the integration of sustainability into accounting education. Accordingly, this study triangulated these views to highlight the learning objectives, competencies, and skills development that benefit the Jordanian accounting students.

Chapter 6's statistical findings show that the overall view of participating stakeholders suggests that the 'role of sustainability accounting information in the decision-making process' is an important topic to be considered in sustainability accounting education (M for overall

stakeholders = 3.88, important). According to the findings in chapter 8, the educators' view suggests that sustainability accounting should urge accounting students to think subjectively and rationally in their future decision-making in the workplace. In other words, sustainability accounting education has a role in changing the way decisions are made and should consider important factors such as society and the environment.

The educators' view indicates an *urgent* claim (due to the claim's statistical importance) to change the way decisions are made in the workplace. These educators do not have the *power* or *legitimacy* to meet their *urgent* claim by directly changing the current corporate practices of decision-making. Thus, educators want to gain *autonomy* to teach sustainability accounting education and raise new leaders able to change future decision-making practices.

Gray and Collison (2002) and Peoples (2009) argue that the subjectivity of students' thinking when making a decision can be achieved through focusing on the qualitative knowledge of nonfinancial information (e.g., sustainability information) and explaining its importance in improving the decision-making process. For example, Creel and Paz (2018) suggest that management accounting should highlight the qualitative aspects of decision-making (e.g., social and environmental aspects). In other words, management accounting is not only about numbers; there are also qualitative aspects to decision-making (e.g., impact of managerial decisions on environment and society).

The statistical findings also show that the overall view of participating stakeholders indicates that sustainability accounting education is important because it helps achieve one of the important aims of Jordanian higher education i.e., 'encouraging, supporting, and improving scientific research, especially the applied scientific research aims of community service and development' (M for overall stakeholders = 3.87). According to the educators' view in chapter 8, the qualitative aspects of sustainability accounting are also believed to open up a new research horizon (qualitative research) for students who plan to follow an academic career. According to Nassar et al. (2013), most accounting researchers in Jordan are more familiar with quantitative than qualitative research, and so they tend to specialise in quantitative research.

The triangulation between the educators' view and the statistical findings that the educators' claim regarding opening up new research horizons for accounting students is also a claim that aligns with the government's aims for Jordanian higher education. In other words, this claim can be achieved through the educators' *autonomy* in teaching sustainability accounting and

through the government's *control* over the general policies of business and accounting education (through governmental policies and regulations). The claim is *urgent* for both the educators (because it is statistically supported by the overall view of stakeholders) and the government (because it is one of the aims set by the Higher Education Ministry).

The statistical findings show that 'principles, guidelines, and regulations relating to corporate sustainability' is an important topic to be included in sustainability accounting education, according to the overall view of participating stakeholders (M for overall stakeholders = 3.87). These principles, regulations, and guidelines explain the relationship between corporations and societies. This quantitative finding is compatible with the educators' view (see chapter 8) which indicates that benefitting accounting students with new knowledge on sustainability accounting can start by teaching these students about how business organisations are related to the environment and society. According to Freeman (1984), the stakeholders offer an important lens through which this relationship between corporations and societies can be explained. Thus, sustainability accounting education in Jordan should consider advanced materials relating to organisations and society including, for example, stakeholder theory, CSR, and the principles of sustainability.

The statistical findings also show that the overall view of participating stakeholders suggests that 'disclosure of corporate sustainability accounting information' is an important topic for inclusion in sustainability accounting (M for overall stakeholders = 4.10). The educators' view in chapter 8 supports this statistical finding and suggests that sustainability accounting can benefit students by teaching ways to communicate sustainability information to stakeholders. Accordingly, sustainability reporting and an introduction to the GRI and IR can form an important part of sustainability accounting education in Jordan because, according to the KPMG (2015) and Hazaima et al. (2017), sustainability reporting is weak in Jordan and the Middle East. However, the statistical findings indicate that teaching about GRI and IR is perhaps too advanced for students who lack basic knowledge of sustainability accounting. Thus, this study suggests that only an introduction to GRI and IR should be considered in sustainability accounting education.

Chapter 8's qualitative findings show that one educator believes that sustainability accounting education will benefit accounting students because it will introduce students to issues relating to water accounting. According to Alshwabka (2019), water accounting is unusual and unique in Jordan to the extent that even Jordanian water management specialists do not know about it.

This ignorance may explain why only one accounting educator raised the issue directly despite its importance. There is no direct statistical evidence that supports the importance of water accounting. Nevertheless, the qualitative findings in chapter 7 did support it in that different participating stakeholders signalled the issue of water accounting indirectly when discussing water issues in Jordan (see, for example, the government's view in chapter 7).

Alshawabka (2019) found that water accounting is a critical issue that water management specialists need to consider seriously due to the poor industrial use of water resources and the water scarcity in Jordan. Thus, the educator's claim to the need to teach water accounting as part of sustainability accounting education can be considered as important, and so, an urgent claim. Accordingly, this study considers water accounting to be one of the important potential areas of knowledge within sustainability accounting education that will help future leaders (students of today) to understand wise ways to use water resources from an accounting perspective.

The statistical findings indicate overall the participating stakeholders believe that it is important to consider 'sustainability implementations in cost and management accounting' (M for overall stakeholders = 4.03) as an important topic in sustainability accounting education. This finding was further highlighted by the qualitative findings in chapter 8 where the view of industry suggested different potential objectives and areas of knowledge relating to sustainability accounting education that benefit accounting students in their future careers. The view of industry suggests that sustainability accounting education should focus on objectives relating to environmental management accounting to help accounting students practise sustainability accounting in future.

The view of industry highlights the importance of corporate environmental management accounting through, for example, showing the case of Volkswagen (discussed in chapter 8). Thus, sustainability accounting education in Jordan can highlight the role of environmental management accounting in mitigating adverse corporate practices with more focus on, for example, the corporate use of water. This approach fits not only the Jordan context that suffers, according to Rahahleh and Sharairi (2008), from a lack of environmental management accounting practices and implementations but also the Middle East context where water resources are limited.

Creel and Paz (2018) support the industry's view that teaching the 'sustainability implementation in cost and management accounting' is important as they argue that cost and

management accounting is the largest area of knowledge involving sustainability concepts. For example, the country context chapter of this study presented different examples of the lack of corporate sustainability practices in Jordan. Most of these practices are due to the use of inappropriate equipment that impacts on the natural resources (e.g., cheap filters in the cement factories that allow air pollution). This equipment was purchased on the basis of bad managerial decision-making relating to capital budgeting, which is a core subject in cost and management accounting. Creel and Paz (2018) suggest using capital budgeting examples as a way to teach students about sustainability accounting education. Students need to learn that purchasing more energy-efficient equipment is a good investment decision that saves money in the long run despite being expensive initially.

According to Creel and Paz (2018), such examples allow students to perceive that environmentally-sound decisions can still produce positive financial results and help students to add the qualitative aspects of decision-making to their learning experience and competencies. The industry's view indicates that, if sustainability has to be integrated into the accounting curriculum, it should focus on practical knowledge of financial matters including cost and management accounting and should show where sustainability can be used to generate profit. The industrial sector in Jordan should participate in forming sustainability accounting education by playing an *external guidance* role as a *dependent* stakeholder and pass its claims to education providers.

The qualitative findings in chapter 8 show that the profession's view suggests that sustainability accounting education benefits accounting students because it will teach issues relating to auditing sustainability reports. However, this study argues that the profession's view of teaching students about auditing sustainability reports is an exaggerated suggestion in the context of Jordan. Jordan suffers from a massive lack of sustainability reporting (Hazaima et al., 2017). Therefore, it is more appropriate to teach students how to prepare sustainability reports. This study's statistical findings can support this argument. Overall, the participating stakeholders ranked 'sustainability audit issues' as one of the three least important topics to be taught to accounting students in Jordan (M for overall stakeholders = 3.48). Nevertheless, that is not to say that auditing sustainability reports is not important, but rather that this issue is currently less important in the context of Jordan.

Jubarah (2018) argues that there might be a role for Jordanian auditors to audit sustainability reports. Thus, the profession's claim to teach auditing sustainability reports as a topic within

sustainability accounting education can be seen as rational, although statistically less important compared to other proposed topics. The profession, as *external guidance* to the development of sustainability accounting education, should participate in developing sustainability accounting education and pass its claim to education providers.

According to chapter 8's qualitative findings, the government's view suggests that sustainability accounting education benefits accounting students because it will help students understand issues relating to corporate governance and environmental laws and regulations that organisations have to seriously consider while running their business. This issue of corporate governance and environmental laws and regulations can be supported by the qualitative findings in chapter 7 which show that corporate governance and corporate commitments to the environmental laws and regulations are weak in Jordan, which forms a challenge to better sustainability practices.

Although the government of Jordan has issued different environmental laws and regulations it seems unable to force business organisations to commit to these laws. This situation indicates how *powerful* business organisations are in Jordan. If the government seriously wants businesses to commit to these environmental laws and regulations, it should help educators to have sufficient *autonomy* to start producing a new generation of future leaders who are aware of the importance of such laws and regulations.

Haddad et al. (2017) argue that there is weak corporate governance and a lack of commitment to environmental laws and regulation in Jordan. This situation can explain the inability of the government to enforce its environmental laws and regulations. Thus, the government's view suggests that sustainability accounting education should focus on corporate governance and raise awareness of the importance of current environmental laws and regulations so that future leaders respect these laws while running their businesses.

Haddad et al. (2017) believe that Jordan suffers not only from a lack of corporate governance but also from a lack of corporate governance topics in the accounting curriculum and an absence of environmental laws and regulations information in the curriculum. Thus, it becomes important to allocate a satisfactory proportion of topics in sustainability accounting education to environmental laws and regulations and some corporate governance issues, particularly those of accountability and transparency. The finding regarding the way businesses obtain, for example, ISO certification (see chapter 7) shows that businesses ignore or manipulate corporate governance practices and the related environmental laws and are not transparent.

The quantitative findings also support these qualitative findings in that the participating stakeholders overall believe that it is the role of sustainability accounting education to ‘highlight and underpin the need for accountability and transparency in Jordanian society’ (M for overall stakeholders = 4.11). In addition, the participants overall believe that sustainability education is useful because it ‘helps both government and industry to formulate future effective sustainability policies, guidelines, and strategies in Jordan’ (M for overall stakeholders = 3.72). The fact that the government’s view is supported by both the qualitative findings in chapter 7 and by the quantitative findings in chapter 6 indicates that the government’s view constitutes an *urgent* claim that needs to be seriously considered in sustainability accounting education in Jordan. Although the government as a *definitive* stakeholder currently has a dominant role in controlling accounting education in Jordan, it seems that the government significantly overlooked the importance of corporate governance and environmental laws and regulations in the accounting curriculum and has focused only on meeting the current business needs of profit maximisation.

Concerning skills development, the qualitative findings in chapter 8 on the views of both educators and industry suggest that sustainability accounting education benefits accounting students because it develops analytical skills and critical thinking and that these improve the decision-making process and problem-solving. This qualitative finding can be considered as an *urgent* claim because it is supported by the quantitative findings. The statistical findings of this study show that the overall view of participating stakeholders supports this qualitative finding because they ranked ‘developing students’ intellectual ability and critical thinking’ third in terms of its importance to accounting students (M for overall stakeholders = 4.01).

Gray and Collison (2002), Peoples (2009), and Chulián (2011) also support the educators and industry view here. Although the current accounting education helps develop analytical skills and critical thinking from a financial perspective (e.g., through a financial statements analysis course), the needed skills are assumed to serve the environment and society along with the economic dimension of sustainability (e.g., the ability to analyse the impact of current practices on both society and environment).

The qualitative findings in chapter 8 also suggest that the accounting profession believes that sustainability accounting education benefits accounting students because it develops communication skills through reporting. In other words, accounting students should have the ability to deal with internal and external stakeholders throughout the reporting process.

Preparing well-written reports requires communication skills. It can be argued that the profession's view forms an *urgent* claim for the profession in Jordan because, according to the statistical findings, the overall view of participating stakeholders supports the profession's view. The overall view of stakeholders suggests that sustainability accounting education is useful in 'promoting transparent sustainability reporting practices for external stakeholders' (M for overall stakeholders = 3.61, important).

Bradfield (2009) argues that transparent sustainability-reporting practices require sufficient knowledge of the report content and writing skills to produce a clear and understandable report, particularly for external stakeholders who are probably not specialised in corporate practices. This argument also can be supported by the statistical findings of this study. The overall view of participating stakeholders is that sustainability accounting education is useful in 'explicating the complex process of corporate decision-making regarding the impact of environmental and social sustainability practices and their consequences for Jordanian industry' (M for overall stakeholders = 3.61, important). This complex technical process should be translated into well-written reports that unspecialised people (external stakeholders) can understand.

Chapter 8's qualitative findings also show that the government's view suggests that sustainability accounting education benefits accounting students because it helps them develop detection/investigative skills so that they can uncover inappropriate and/or hidden practices within business organisations. There is no direct statistical evidence in the statistical findings of this study that supports the importance of developing investigative skills specifically. Nevertheless, according to Chulián (2011), analytical skills and critical thinking can help develop detection/investigative skills. As a result, the detection skills highlighted in the government's view can be seen as an integral part of the analytical skills and critical thinking highlighted previously in the educators' and industry's viewpoints. Table 9.2 summarises the key learning objectives, skills development, and related areas of knowledge of sustainability accounting education in Jordan that lead to preparing competent students in sustainability accounting. The next section discusses the methods of integrating sustainability into the accounting curriculum in Jordan.

Table 9.2 *Knowledge and Skills Objectives and Related Areas of Knowledge*

Stakeholders	Key Learning Objectives	Skills development	Areas of knowledge
Educators	<ul style="list-style-type: none"> • To develop accounting students' perceptions on the importance of the qualitative information of both the society and environment in the decision-making process • To enable accounting students from preparing sustainability and CSR reports in light of the main sustainability reporting standards of the GRI and IR • To provide accounting students with knowledge on water accounting • To help accounting students do qualitative research on current corporate sustainability practices 	<ul style="list-style-type: none"> • Analytical skills • Critical thinking • Problem-solving • Environmental decision-making 	<ul style="list-style-type: none"> • Organisation and society • CSR • Introduction to sustainability accounting concepts • Theories (stakeholders & legitimacy) • Sustainability reporting • Water accounting
Industry	<ul style="list-style-type: none"> • To help accounting students use management accounting tools to improve current corporate sustainability practices 	<ul style="list-style-type: none"> • Analytical skills • Problem-solving • Decision-making 	<ul style="list-style-type: none"> • Environmental management accounting
Profession	<ul style="list-style-type: none"> • To explain to accounting students how to consider sustainability issues in auditing corporate practices and reports 	<ul style="list-style-type: none"> • Communication skills • Reporting skills • Auditing skills 	<ul style="list-style-type: none"> • Auditing sustainability reports
Government	<ul style="list-style-type: none"> • To enhance accounting students' knowledge of corporate governance issues • To equip accounting students with sufficient knowledge of the current environmental laws and regulations, and increase their awareness of the importance of these laws and regulations to businesses 	<ul style="list-style-type: none"> • Detection/investigative skills 	<ul style="list-style-type: none"> • Business and the government • Environmental laws and regulations

Source: Author

9.4 Sustainability Accounting Methods of Integration

The statistical findings reported in chapter 6 show that, overall, the stakeholders who participated in this study have an *urgent* claim to integrate sustainability education into the accounting curriculum through two different methods of integration. First, the integration process should be through 'adding sustainability accounting topics to individual accounting paper sessions (e.g., lectures) within the existing accounting curricula structure' (M for the overall view of stakeholders = 3.98, important). Botes et al. (2014) support this method of integration. They argue that sustainability topics should be integrated into existing accounting papers. The educators' view on the educational challenges discussed in chapter 7 suggests that this method of integration is applicable. It does not require capacity in the current accounting curriculum because it does not increase the number of curriculum courses. Meanwhile, the

educators' view of the governmental challenges found in chapter 7 indicates that this method of integration does not require governmental approvals. In other words, the qualitative findings do not indicate challenges in integrating sustainability topics into existing accounting courses.

The second method of integration suggested by the statistical findings is 'developing a new compulsory stand-alone paper on sustainability accounting for inclusion in existing accounting curricula' (M for the overall view of stakeholders = 3.90, important). Christensen et al. (2007) and Stubbs and Schapper (2012) support this method of integration. They believe that stand-alone courses provide students with a more comprehensive and detailed explanation of sustainability concepts, principles, and implementations. However, the governmental challenges noted in chapter 7 show that the educators' view suggests that using a stand-alone sustainability accounting course requires approvals from the Ministry of Higher Education and the HEAC because the current accounting curriculum has to be based on the accounting discipline's 'knowledge fields' proposed by the Ministry and HEAC. The educators' view indicates that sustainability accounting does not fit these knowledge fields. This finding shows that the government is playing a *definitive* role by strictly *controlling* the current accounting curriculum.

In addition, the educational challenges examined in chapter 7 also show that integrating a sustainability accounting stand-alone course into the accounting curriculum is challenging. The views of educators, industry, and students indicate that the Jordanian accounting curriculum is overcrowded and overwhelmed with courses. Abu-Hola and Tareef (2009) and Fraij (2012) support these findings in that they believe that the accounting curriculum in Jordan is overcrowded and needs major structural reforms. Regarding ways to solve the issue of the overcrowded curriculum, the qualitative findings in chapter 7 show three different views relating to the educators, industry, and accounting students participating in this study. The educators' and industry's views suggest a reduction in the total number of the university requirements (general courses) for the accounting curriculum and the use of a contemporary accounting course, while the students' view suggests the use of fewer but more extensive accounting courses rather than the existing broad courses. These views are discussed below.

The educator would like to see a reduction in the total number of the university requirements (e.g., languages and military courses) because these courses are very general and do not relate to accounting as a study major. Removing such courses would create space to include courses such as a sustainability accounting course. However, the governmental challenges revealed in

chapter 7 show that the majority of educators believe that bringing about this change in the balance between the numbers of general courses and accounting courses is beyond their *control* due to the government's *definitive* role in *controlling* the curriculum's structure. Thus, some participating educators suggest the integration of sustainability accounting via the contemporary accounting course, as its integration is possible without governmental approval.

However, the qualitative findings in chapter 8 indicate that the use of the contemporary accounting course is perhaps not the optimal solution either. According to these findings (students' benefits of sustainability accounting, chapter 8), sustainability accounting education in Jordan should cover many different objectives and areas of knowledge and should develop different skills and competencies (as discussed in section 9.3 above). The contemporary accounting course capacity cannot cover all the sustainability objectives noted in chapter 8 because the course aims to present many different contemporary issues in accounting and considers sustainability as only one of these contemporary issues (see discussion of overcrowded curriculum, educators' view, chapter 7). The industry's view is in line with the educators' view; however, most industrial practitioners participating in the study stressed that the sustainability accounting course should not replace an existing accounting course. In other words, it is not acceptable, according to the industry view, to replace a 'traditional accounting' course with a sustainability accounting course.

The accounting students' view contradicts the views of the educators and industry, as students have a different claim. The students' view found in chapter 7 (educational challenges) suggests that the proposed solution of both the educators and industry will negatively affect students' academic performance because it is much easier for them to obtain higher marks in the university's required general courses than in the accounting department and faculty's required business and accounting courses. Instead, the students' view suggests that the accounting curriculum is overcrowded because there are many similar courses in the current accounting curriculum (e.g., Accounting Principles 1 and 2, Cost Accounting 1 and 2, Intermediate Accounting 1 and 2, Audit 1 and 2). The students believe that the number of these courses can be reduced by merging two similar courses to create a space to include a sustainability accounting course. Although these courses are not repetitious but build on each other, they discuss the same topics but at different levels. Thus, the merging process should aim at making one intensive (advanced) course instead of two broad accounting courses.

According to the theoretical framework developed for this study (see chapter 4), accounting students as a salient stakeholder group can suggest this strategy (merging similar courses) to create a space in the accounting curriculum, because they play an *internal guidance* role in curriculum development through their feedback and suggestions to education providers. It was noted that the Jordanian phenomenon of having similar courses is rare, if it exists at all, in the Western accounting curriculum⁴⁷. This observation may support the students' suggestion on how to create space in the current accounting curriculum to integrate a stand-alone course on sustainability accounting education. The next section discusses the academic resources for sustainability accounting education in Jordan.

9.5 Sustainability Accounting Academic Resources

The findings in chapter 6 (part 7 of the survey) indicate the need for a customised sustainability accounting textbook in that it was found that, even if sustainability accounting education is not delivered in Arabic, the subject should at least have an Arabic reference. As found earlier in chapter 6, participant Edu28 explained that the integration of a paper on sustainability accounting is challenging due to lack of related textbooks, particularly in Arabic. This finding indicates that the teaching language is important because the course is assumed to address sustainability issues within the Middle East and Jordan where Arabic is the mother language. The educational challenges revealed in chapter 7 indicate also that integrating sustainability education into the accounting curriculum is challenging in Jordan due to the lack of academic resources and specialised educators. These findings on the educators, industry, and the accounting profession also suggest that there is a need for a customised sustainability accounting textbook that suits the context of Jordan.

Nevertheless, the educational challenges discussed in chapter 7 show that some participating educators and industrial practitioners have proposed a solution to the issue of having a suitable sustainability accounting textbook. The educators suggest translating the most suitable chapters of a foreign sustainability accounting textbook as a primary step to authoring an independent textbook that addresses sustainability issues in Jordan and the Middle East from an accounting perspective. The industrial practitioners suggested Epstein (2018)'s practical book as a potential foreign textbook. That book attempts to create a balance in the treatment of both

⁴⁷ The researcher noted the difference between the Jordanian and Western accounting curriculum because he has some experience in this area. He obtained his bachelor's degree in accounting from a Jordanian university and the master's degree from the University of Waikato. He taught accounting in a Jordanian university and he has worked at the Waikato Institute of Technology, New Zealand as an accounting tutor.

shareholders and stakeholders. Epstein (2018) also highlights the importance of sustainability practices while building the business value for organisations in a practical way. Thus, customising some of this book's chapters to suit the Jordanian context could be a good project. The industrial practitioners, who represent their business organisations, can recommend that education providers (educators) use this textbook because they have an *external guidance* role in the development of accounting education, as suggested by the theoretical framework developed in this study.

As shown in chapter 6's findings (part 7 of the survey) the student participants also highlighted the lack of specialised educators. The findings on the educational challenges of chapter 7 also support this finding. The educational challenges show that the educators, industry, and the accounting profession believe that current accounting educators are specialised only in teaching 'traditional' accounting courses. The literature also supports the belief that there is a lack of specialised educators who can teach sustainability accounting in Jordan. For example, Al-Akra et al. (2009), Khader (2010), and Al-Soud et al. (2014) believe that most of the current Jordanian accounting educators were sponsored by Jordanian business schools to obtain their masters' degrees and doctorates from top Western universities in the USA, UK, Canada, and Australia. However, Jordanian business schools sponsored these educators to specialise in traditional accounting that focuses on profit maximisation issues. Nevertheless, one could argue that this level of education makes them qualified to teach a paper on sustainability accounting. This argument can be supported by the profession's view about the lack of specialised educators. The profession suggests that all that current accounting educators need to do is to attend some sustainability accounting courses held by international trainers.

The profession can pass its suggestion to the education providers through its *external guidance* role in accounting education development, as suggested by the theoretical framework developed for this study. Meanwhile, this study recommends that Jordanian business schools should encourage and support future PhD candidates to specialise in sustainability accounting by offering them the necessary scholarships. The next section discusses the pedagogies and performance assessment.

9.6 Sustainability Accounting Teaching and Learning Pedagogies and Performance Assessment

The statistical findings in chapter 6 show that, overall, the participating stakeholders view sustainability accounting education as useful because it 'increases understanding of global

sustainability issues' (M for overall stakeholders = 4.08). Here, chapter 7's statistical finding on the educational challenges indicates that educators think that showing students videos on global sustainability-related issues and engaging international experts (guest speakers) can provide a way to teach sustainability issues.

Similarly, the statistical findings show that the overall view of participating stakeholders is that sustainability accounting education is useful because it contributes to 'developing the intellectual ability and critical thinking of students' and 'assessing the impact of sustainability reporting practices on corporate performance' (M for overall stakeholders respectively = 4.01 and 3.85). Developing students' critical thinking and assessing the impact of sustainability reporting practices require the use of different pedagogies such as making field visits, group discussions, and classroom assignments. In other words, because sustainability is a wide concept that relates to most areas of life (theory and practice), teaching and learning about sustainability requires the use of a range of different pedagogies in addition to lecturing. Wyness and Dalton (2018), Aarup (2017), Dambudzo (2015), Ryan and Cotton (2013), and Jones et al. (2010) support the use of a range of different pedagogies in teaching and learning in sustainability-related courses. They argue that sustainability-related issues necessitate educators' use of different pedagogies inside and outside the classroom in order to enable students to make the link between theory and practice.

The educational challenges reported in chapter 7 show that the integration of sustainability education into the accounting curriculum in Jordan is challenging because it requires the use of teaching and learning pedagogies that are unusual in the context of Jordanian universities, where lecturing in the classroom is the only official teaching and learning method. As shown in chapter 7, educators think that sustainability accounting should be taught in a way that enhances students' engagement, understanding, and experiences of sustainability implementation in accounting. The majority of participating educators believe that this way of teaching is challenging because it requires integration of students' emotions, memories, and personal experiences into the formal teaching and learning process. To make this integration, the educators argue that sustainability accounting education requires pedagogies that are effective in engaging students with sustainability accounting implementation and which raise students' feelings of responsibility towards sustainability issues. The findings show that the educators proposed unique sustainability accounting pedagogies, including field visits, assignments (e.g., investigating current corporate practices and preparing reports), showing

videos that highlight global sustainability issues (e.g., documentary programmes on industrial pollution), group discussions, and bringing in guest speakers.

However, the educational challenges as well as the governmental challenges examined in chapter 7 show that the use of different sustainability accounting teaching and learning pedagogies is challenging for two main reasons. First, the educators' view of the educational and governmental challenges found in chapter 7 shows that educators are *powerless* to freely use a range of different pedagogies because the Jordanian Ministry of Higher Education and the HEAC accredit only one method of teaching and learning i.e., via lecturing and textbooks. Accordingly, universities provide educators with only basic services and infrastructures (classrooms). In other words, the government intends this lack of necessary infrastructure.

Second, the use of any extra pedagogies (e.g., field visits) requires approvals from different parties including the university. This requirement leads to the second reason why adding new teaching approaches is problematic. The educators' view about the governmental challenges indicates that the problem relates to bureaucracy. The educators believe that the approvals needed to use pedagogies other than lecturing, specifically field visits, are complex and require time and effort. The approvals consist of many iterative steps that go through only official channels (e.g., to the Head of Department, and then to the Dean of School, and then to the targeted organisation to be visited). This process consumes time and effort, which discourage educators from going through the process. According to Nonneman (2013), Jordan has advanced through a bureaucratic regime whereby even the simplest decisions require centralised approval from other parties. In addition to these challenges, the findings in chapter 6 (part 7) show that one participating industrial practitioner (Ind28) believes that the time allocated to lectures is too limited for sustainability education to be included. The limited time may also influence the pedagogies used. For example, showing a video and discussing it effectively in the classroom requires sufficient time.

It was concluded that the discussion of the challenges around pedagogies shows that educators have *urgent* claims, as they believe that teaching and learning sustainability accounting necessitates the use of a range of different pedagogies. However, educators are *powerless* to make the related decision to meet these requirements because the government strictly *controls* the teaching and learning pedagogies, including the required infrastructures, through its educational policies. In other words, the government plays a *definitive* role in leading educators to lose their *autonomy*. The theoretical framework developed for this study suggests a solution

to this issue. The government should relinquish its *definitive* role by reducing its *control* over the academic relationship between students and their educators and so allow for more educators' *autonomy*. Educators need to practise *autonomy* and take the decision on what suitable pedagogies to use as they have a *legitimate* claim to do so. The government should shape only general educational policies and university administrative regulations.

With regard to the assessment of students' performance in sustainability accounting education, the statistical findings reported in chapter 6 indirectly suggest that assignments should be an important part of students' assessment. It was noted that the role of sustainability accounting education in Jordan (part 2 of the survey) tends to place more emphasis on the practical parts (implementations) of sustainability accounting than on the theoretical part. For example, the participating stakeholders overall believe that sustainability accounting education is important due to its role in 'producing a better-educated generation of managers who can lead industries more effectively towards their corporate social responsibility' (M for overall stakeholders = 4.10, important). Sustainability accounting education cannot achieve this important role if students' learning and assessment are based on only the textbook and exams. Students should be involved in the reality of the current situation (practices) of industrial organisations by being given a range of different assignments that are subject to assessment. This argument is supported by Dambudzo (2015) who believes that assignments are an effective measurable method that helps students achieve the goals of teaching and learning about sustainability-related issues.

The educators' view of the educational challenges in chapter 7 shows that the assessment process is challenging because it needs to follow the prescribed teaching and learning pedagogies. The majority of participating educators believe that the assessment should not be confined to exams. These educators suggest that assignments should play a significant part in the assessment process. For example, students should be asked to prepare reports about their field visits, a reflection on the guest speaker presentation, and reports about the sustainability-related videos they watch. In other words, it is not enough to use the teaching and learning pedagogies mentioned above without assigning a significant part of the assessment to these new pedagogies.

However, the governmental challenges noted in chapter 7 indicate that, according to the educators, the Ministry of Higher Education and the HEAC preclude educators from using a range of different assessment methods. The educators' view indicates that examination is the

only officially permitted way to assess bachelor's students' academic performance. The governmental interference in the academic relationship between students and their educators by *controlling* the teaching and learning pedagogies and students' performance assessment makes the educators lose their *autonomy* in making the right decision on how to manage the education process. If educators play their role as a *definitive* stakeholder, and the government plays its role as an *independent* stakeholder, as suggested in the theoretical framework developed for this study (chapter 4), educators will be able to practise *autonomy* and the government can issue general educational policies that set only the headlines for the education process. The next section develops the Jordanian salient stakeholder-driven model of sustainability accounting education.

9.7 The Salient Stakeholder-driven Model of Sustainability Accounting Education Developed for this Study

This section develops the salient stakeholder-driven model of sustainability accounting education in Jordan in line with three of the study's elements: the theoretical framework developed for this study in chapter 4; the literature review (chapter 3), where models and frameworks were developed to integrate sustainability education into business and accounting curriculum are discussed; the triangulation discussed in this chapter, which is based on the findings on key salient stakeholders' perceptions in chapters 6, 7, and 8. Figure 9.2 (next page) presents the salient stakeholder-driven model of sustainability accounting education in Jordan developed for this study. The model addresses two issues: first, how Jordanian salient stakeholders should be involved in facilitating the integration of sustainability education into the accounting curriculum; and, second, how sustainability accounting education should be implemented in Jordanian universities. The discussion that follows Figure 9.2 explains how the model addresses these two issues.

To facilitate the integration of sustainability education into the accounting curriculum in Jordan, the model starts with a salient stakeholder analysis and identifies five groups of salient stakeholders who should be involved in the integration process. As shown in Figure 9.2, these groups of salient stakeholders are classified into external and internal stakeholders. External stakeholders include the government, business organisations (industry), and the accounting profession. Internal stakeholders, however, include both the educators and students because they are the core of the educational process within the university campus.

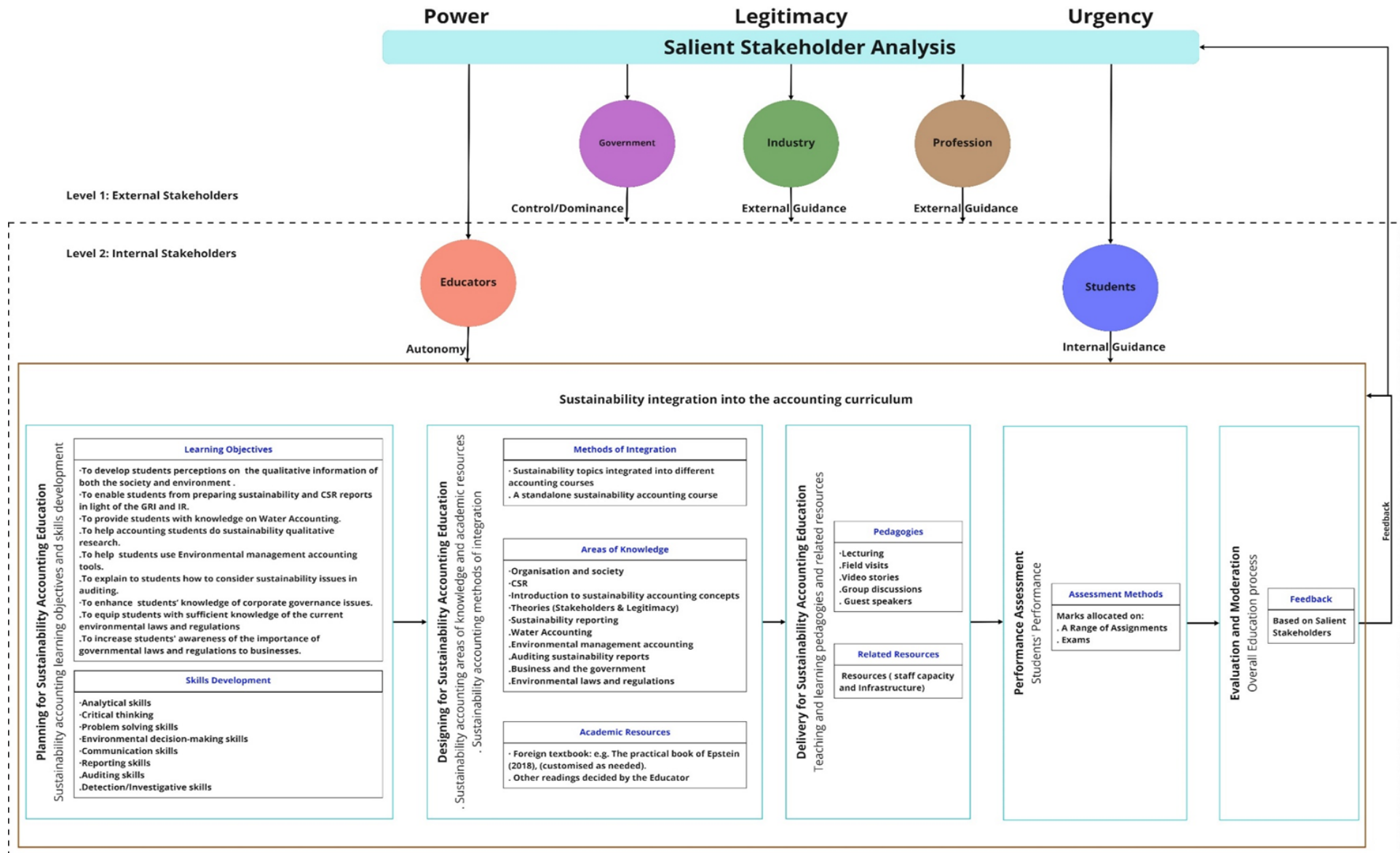


Figure 9.2 A Salient Stakeholder-driven Model for Sustainability Accounting Education in Jordan. Source: Author.

Based on the theoretical framework developed for this study as well as the triangulation of the key salient stakeholders' perceptions discussed in this chapter, the model (Figure 9.2) shows that each group of salient stakeholders should be involved in the process of integration in a particular manner as follows.

The government's involvement is through *controlling* only general educational policies without interfering in the academic relationship between educators and their students. Both the industry and accounting profession's involvement is through their *external guidance* role in which they externally guide the process of integration (e.g., participating in setting the objectives of sustainability accounting education by passing their needs and suggestions to educators). Educators should have *autonomy* and be able to make the decision to integrate and plan for this integration (e.g., prepare the materials, topics, and pedagogies). Students are involved through their *internal guidance* role, providing their educators with feedback about the educational process of sustainability accounting education (e.g., the content, topics, and pedagogies). In this way, all Jordanian salient stakeholders will have specific roles to play in integrating sustainability education into the accounting curriculum and thus the main challenges of sustainability accounting education will be addressed. However, to facilitate Jordanian salient stakeholders' involvement, the model (Figure 9.2) shows that there must be an appropriate distribution of *power*, *legitimacy*, and *urgency* amongst stakeholders. This point is illustrated in Table 9.1 above.

Figure 9.2 also provides educators with a plan for implementing sustainability accounting education in Jordan. Figure 9.2 shows that educators need to take six steps. First, educators should plan for sustainability accounting education by setting the learning objectives and skills development. Secondly, educators need to create a design for sustainability accounting education by highlighting the sustainability areas of knowledge that meet the learning objectives and skills development and then determining the necessary academic resources and the methods of integration. Third, educators should determine the teaching and learning pedagogies and related resources. Fourth, educators need to decide how to assess students' academic performance in sustainability accounting education. Fifth, educators evaluate and moderate the overall education process of the course. Educators, finally, need to evaluate and moderate the overall education process based on feedback and a salient stakeholder analysis (e.g., are there any new needs and expectations of silent stakeholders, or are there any new groups of salient stakeholders?). According to Figure 9.2, all these steps should be in light of

the Jordanian salient stakeholder analysis so as to meet the different needs and expectations of sustainability accounting education in Jordan.

This plan to implement sustainability accounting education in Jordan (Figure 9.2) is based on this study's literature review. The plan follows the stakeholder perspective approach of Meyer and Bushney (2008) that they used in developing their model. Meyer and Bushney's (2008) model addressed multi-salient stakeholders' needs. The multistakeholder-driven model of Meyer and Bushney (2008) consists of three main phases aligned to the planning and implementation of a quality management system for a learning curriculum. These phases are: first, the quality planning, which covers planning issues concerning programme/course development; second, the implementation of the quality management system, which addresses programme/course delivery issues; and, third, the quality review phase, which includes the process of ensuring that the learning programme/course meets the quality standards to be achieved (e.g., objectives and outcomes). These three phases consist of different stages, as briefly explained in Table 9.3 (next page). The table also shows how Figure 9.2 has adapted Meyer and Bushney's approach (2008) to develop this study's own plan for sustainability accounting education in the context of Jordan.

Figure 9.2 also shows how educators can meet the needs and expectations of Jordanian salient stakeholders while implementing sustainability accounting education (the five steps in the model) because this study has responded to each of the steps in the model through its Jordanian salient stakeholder analysis and triangulating the findings of this analysis. The triangulation of the key salient stakeholders' perceptions shows that sustainability accounting education in Jordan should consider the following important (*urgent*) claims. First, it should aim to meet a range of different key learning objectives (see Table 9.2 above) that help accounting students develop skills including analytical skills, critical thinking, problem-solving, decision-making, communication and reporting, and detection/investigative skills. Developing these is in addition to covering the main knowledge areas including organisation and society, CSR, introduction to sustainability accounting concepts, stakeholder and legitimacy theories, sustainability reporting, water accounting, environmental management accounting, auditing sustainability reports, corporate governance, and the Jordanian environmental laws and regulations. In this way, sustainability accounting education can achieve the stakeholders' expectations of its benefits.

Table 9.3 *A Summary of Meyer and Bushney's Model (2008) and its Application in this PhD Study*

Meyer and Bushney's model (2008)			
Phase (P)	Stage (S)	Brief explanation	This PhD study
P1: Quality Planning	S1: Market Analysis	A wide market analysis, based on real, national, regional or international imperatives is needed to ensure that the developed course meets the needs of stakeholders.	Stakeholder analysis is made to identify salient stakeholders and their needs and influence on the integration process. Chapters 6, 7 and 8 of findings as well as the triangulation made underpin the analysis.
	S2: Programme/ course Planning	Requires deep and focused understanding of the salient stakeholders' needs. More focus on salient stakeholders' engagements is needed. Needed learning objectives and skills development are determined.	Chapters 7 and 8's qualitative findings provide an understanding of the challenges and benefits of sustainability accounting education. The triangulation highlights the required learning objectives and skills development.
	S3: Programme/ course Design and Development	The course is designed and developed for teaching. Specific course areas of knowledge are determined (e.g., what should the course chapters cover?). Learning guides and resources needed are highlighted (e.g., the guide of teaching and learning including specific textbook and other reading papers).	The triangulation determines the needed methods of sustainability integration and the specific, needed sustainability areas of knowledge. The triangulation also addresses the teaching and learning guide, including the needed textbook.
P2: Quality Management System Implementation	S4: Programme/ course Delivery	Teaching and learning pedagogies are determined. Requires sufficient resource allocation and staff capacity.	The triangulation discusses and determines the needed teaching and learning pedagogies as well as related resource allocation and staff capacity (infrastructure and specialised educators).
P3: Quality Review	S5: Assessment and Moderation	To ensure that the course outcomes have been achieved, and students who have taken the course are competent. Students' assessment methods are determined (e.g., marks allocated based on different assignments).	The triangulation discusses students' academic performance assessments methods.
	S6: Programme/ course Evaluation	To ensure that the overall course is evaluated to determine its future influence on stakeholders (e.g., students, society. and workplace). Conducted after the course is given.	The study recommends an overall evaluation of sustainability accounting education after implementation to obtain the needed feedback.

Source: Summarised from Meyer and Bushey (2008)

Second, sustainability accounting education should adopt two different methods in parallel: by integrating sustainability topics into different existing accounting courses, and by developing a stand-alone course on sustainability accounting. Together both methods should cover the aforementioned main areas of knowledge. Third, sustainability accounting education requires academic resources including specialised educators and suitable literature/textbooks.

Despite this challenge, accounting educators can still teach a sustainability accounting course for the bachelor's accounting students and be allowed to use, customise, and translate a foreign textbook to suit Jordan. Fourth, sustainability accounting education requires a range of teaching and learning pedagogies and performance assessment including lecturing, field visits, video stories, group discussions, guest speakers, and a suitable assessment method decided by the educator for each of these assignments. This area is challenging due to the government's strict *control* and dominance in the academic relationship between students and their educators where only lecturing and examinations are allowed. However, if salient stakeholders were involved in the ways indicated in Figure 9.2, this issue would be addressed.

9.8 Summary

This chapter developed the Jordanian salient stakeholder-driven model of sustainability accounting education and in so doing answered the study's last research question. The model was developed on the basis on the triangulation between the quantitative and qualitative findings of this study and in light of the literature review and the theoretical framework developed for this study. The model shows how sustainability education can be integrated into the accounting curriculum in Jordan. It meets the expectations of the Jordanian salient stakeholders in that it covers issues relating to sustainability accounting education's learning objectives, competencies and skills developments, related areas of knowledge, methods of integration, pedagogies and assessment, and evaluation.

The developed model shows how Jordanian salient stakeholders should influence the process of integrating sustainability into the accounting curriculum. The model shows that the government should be involved only through *controlling* general educational policies so that educators can practise *autonomy*. It also shows that whilst the students' involvement should be through an *internal guidance* role, both the business organisations and the accounting profession should be involved through their *external guidance* role. Addressing the challenges of integrating sustainability education into the accounting curriculum requires an effective distribution of the Jordanian salient stakeholders' *power*, *legitimacy*, and *urgency*, so that each of these stakeholders can play an effective role within the limits of their areas of specialisation (level of involvement). The next chapter concludes the overall study.

Chapter 10

Conclusion and Recommendations

10.1 Introduction

This chapter summarises and concludes this study. The chapter starts with a summary of the research background, questions, and approach then presents the major findings based on the research questions, and explains the methodological, theoretical, and practical contributions of the study. The chapter next outlines the implications of this study for the Jordanian salient stakeholders and finally explains the limitations of the study and recommends potential areas of future research.

10.2 Summary of Research Background, Questions, and Approach

Sustainability accounting education has been perceived by the literature as critical in preparing future business leaders and accountants to encounter the future challenges of corporate sustainability practices (see Bebbington & Thomson, 2001; Gray, 2013, 2019; Sharma & Kelly, 2014). Despite the increasing calls for sustainability accounting education, most business schools are lagging behind and have not seriously integrated sustainability education into the accounting curriculum (Fakoya, 2015). Research on sustainability accounting education in developing countries, particularly in the Middle East, is limited and could be one of the reasons behind UNESCO's increasing interest in education for sustainable development (Biasutti & Frate, 2017). While research investigating sustainability education in business and accounting curriculum focuses mainly on stakeholders' perceptions, there is a lack of research that investigates stakeholders' roles in influencing the integration process of sustainability education into the business and accounting curricula (Alves et al., 2010; Bui et al., 2017; Jongbloed et al., 2008).

This study investigated the integration of sustainability education into the accounting curriculum of business schools in a developing country. The setting for this study was Jordan, a Middle Eastern country that, despite its limited resources, is known for its outstanding tertiary education. Although Jordan suffers from environmental degradation caused by adverse industrial practices and a lack of corporate sustainability practices (Hazaima et al., 2017), sustainability accounting education does not exist there. In Jordan, accounting curriculum development faces a number of challenges. For example, Maali and Al-Attar (2020) found that

the curriculum is controlled by the government via the Ministry of Higher Education and the HEAC. They found that accounting educators lack freedom to develop the curriculum. For instance, if educators want to integrate a new study course into the accounting curriculum, the course must first fit the specific areas of knowledge imposed by the HEAC. They also found that other Jordanian stakeholders' roles (e.g., those of businesses, the accounting profession, and students) in influencing the curriculum development lack clarity and research investigation.

The issue relating to the lack of corporate sustainability practices in Jordan and the absence of sustainability accounting education provided the motivation for this study. It was important that a study was conducted to explore the importance of integrating sustainability education into the Jordanian accounting curriculum and to investigate the challenges and benefits of bringing sustainability accounting education to Jordan. This study attempted to develop a salient stakeholder-driven model to integrate sustainability education into the Jordanian accounting curriculum. The study used the salient stakeholder theory as a lens to understand how Jordanian salient stakeholders can influence the integration of sustainability education into the accounting curriculum. This study asked the following research questions:

1. How important is it to integrate sustainability education into the Jordanian accounting curriculum?
2. What do salient stakeholders expect to find in the Jordanian accounting curriculum with regard to sustainability education?
3. What are the challenges and benefits of integrating sustainability education into the accounting curriculum of Jordanian business schools?
4. How can an integrated sustainability accounting model be developed in the Jordanian accounting curriculum?

The study addressed the research questions through an explanatory sequential mixed method. A quantitative approach was used to address the first two research questions, and a qualitative approach was used to address the third research question. The fourth research question was addressed by triangulating data from the study's quantitative and qualitative findings. Using the quantitative approach, 966 questionnaires were distributed to five different groups of stakeholders (educators, students, practitioners, the government, and the accounting profession). Eight hundred and forty-seven questionnaires were collected, 145 of which were unusable. This resulted in a final usable response of 702 with a response rate of approximately

72.6%. The data collected was analysed mainly using IBM SPSS Statistics v.22 software. Using the qualitative approach, data was collected from 46 participants using semistructured interviews. Thematic analysis was performed using the Nvivo12 program software. Subsequently, a salient stakeholder-driven model was developed for integrating sustainability education into the Jordanian accounting curriculum. The next section presents the major findings of the study.

10.3 Major Findings

This section presents the major findings of the study. These findings are presented in line with the thesis' research questions.

10.3.1 How Important is it to Integrate Sustainability Education into the Jordanian Accounting Curriculum?

The quantitative findings show that integrating sustainability education into the Jordanian accounting curriculum is important because sustainability accounting education has important roles to play in Jordan. Sustainability accounting education's most important role is to highlight and underpin the need for accountability and transparency in Jordan. Its second important role is that, if implemented, sustainability accounting education will help Jordan produce a better-educated generation of managers who can lead industries more effectively towards their corporate social responsibilities. The third important role is that sustainability accounting education will equip Jordan's future managers with the required knowledge to prepare and implement sustainability plans. The fourth important role is that sustainability accounting education will increase students' awareness of organisations' commitments towards social and environmental/sustainability issues.

The quantitative findings also show that integrating sustainability education into the Jordanian accounting curriculum is important due to its usefulness to Jordan. According to these findings, sustainability accounting education will be useful for accounting students as it will help them be aware of and understand the global sustainability issues. It was concluded from the findings and literature that such understanding of sustainability issues would enrich the knowledge of students so that they become more responsible towards these issues in future. The findings reveal that sustainability accounting education is useful because it helps enhance the future of sustainability practices within Jordan's industry. The majority of participating stakeholders believe that if accounting students have sufficient sustainability knowledge, they will be able

to bring in sustainability practices into industries in the future. The findings also show that sustainability accounting education is useful in developing students' intellectual ability and critical thinking and that it will help them to assess the impact of sustainability reporting practices on corporate performance in the future.

The quantitative findings also indicate that sustainability accounting education is important for Jordan because it can address the aims of Jordanian higher education. For example, the findings show that sustainability accounting education can prepare future leaders who become specialised in various fields of knowledge to meet the needs of the Jordanian community. In addition, sustainability accounting education can help to deepen the Islamic faith, its ethics, and spiritual values. Moreover, it can enhance the sense of national belonging, and it will encourage and support research that aims to develop community service and development in Jordan.

10.3.2 What do Salient Stakeholders Expect to Find in the Jordanian Accounting Curriculum with Regard to Sustainability Education?

The quantitative findings indicated that the Jordanian stakeholders participating in this study would like to see sustainability education integrated into the accounting curriculum using two different methods of integration. First, sustainability accounting topics could be added into individual sessions and lectures. Participants believe that the important topics of sustainability accounting should be taught, where appropriate, as an integral part of existing accounting courses. Secondly, a stand-alone compulsory paper (course) should be developed and taught in the current accounting curriculum. Participants believe that these two methods of integration should be applied in parallel.

The quantitative findings also showed that the participants would like to see a variety of sustainability accounting topics that are important to the accounting students covered by sustainability accounting education in Jordan. The most important topics according to the findings include disclosure of corporate sustainability accounting information, sustainability implementations in cost and management accounting, the role of sustainability accounting information in the decision-making process, sustainability accounting implementations in solving global sustainability issues, and the principles, guidelines, and regulations relating to corporate sustainability. It was concluded from the quantitative findings on the first two research questions that the stakeholder participants perceived sustainability education as significantly important and that it needed to be included meaningfully in the Jordanian

accounting curriculum. It was also concluded that the current Jordanian accounting curriculum does not meet the needs and expectations of its stakeholders.

10.3.3 What are the Challenges and Benefits of Integrating Sustainability Education into the Accounting Curriculum of Jordanian Business Schools?

The qualitative findings of this study highlighted different challenges to as well as benefits of integrating sustainability education into the Jordanian accounting curriculum. The interview findings indicated that integrating sustainability education into the accounting curriculum in Jordan involves numerous challenges; these were classified as educational, ideological, governmental, institutional, and social challenges. With regard to the educational challenges, it was found that Jordanian business schools lack sustainability teaching and learning resources on sustainability accounting. It was also found that there is a lack of academic educators specialised in teaching sustainability accounting in Jordan. The interview findings indicated that the Jordanian accounting curriculum is overcrowded as it contains a significant number of non-accounting courses as well as traditional accounting courses. Accounting educators and students are more familiar with quantitative accounting courses. Qualitative courses are rarely found in the accounting curriculum in Jordan. Interviewees perceived that sustainability accounting will be difficult to teach because it is a new concept in Jordan. It was found that the concept of sustainability accounting is not clearly defined and so is difficult to understand. The findings also indicated that sustainability accounting education requires the use of a range of pedagogies which are difficult to implement without the government's approval as such pedagogies do not match the government's requirements which are confined to exams and textbooks.

Jordan faces an ideological challenge to integrating sustainability into the accounting curriculum because understanding of the value relevance of sustainability accounting is either nonexistent or unclear in this country. The findings showed that stakeholders found it difficult to understand the link between sustainability and accounting. The findings also indicated that accounting concepts contradict sustainability because accounting aims to serve the needs of shareholders whereas sustainability is more about meeting a diverse group of stakeholders' needs. It was also found that corporate sustainability practices in Jordan are confined to the social dimension of sustainability (e.g., social reporting of donations), which is treated from a tax or marketing perspective rather than a sustainability accounting perspective. This finding

showed that the value relevance of sustainability accounting is nonexistent not only from an academic perspective (educators) but also from a practical business perspective.

Sustainability accounting education in Jordan faces governmental challenges including government's control and autonomy over the accounting curriculum as well as governmental bureaucracy. Findings indicated that the Ministry of Higher Education and the HEAC in Jordan dictate the accounting curriculum components and design. The Ministry and the HEAC set specific fields of knowledge that must be strictly adopted by accounting educators when preparing to teach accounting courses. Any courses that do not meet these specific fields of knowledge will not be permitted in universities. The findings indicated that the HEAC determines the accounting discipline's fields of knowledge by selecting a committee of accounting academic experts from universities. However, the findings showed that the number of committee members is not representative and only chosen by the head of the HEAC. It was also found that this committee sets accounting fields of knowledge that serve only businesses' traditional needs of profit maximisation.

The findings also showed that the Ministry and the HEAC control not only the curriculum components but also the teaching and learning pedagogies and performance assessment in universities and business schools. Educators must follow specific teaching and assessment methods; these are confined to lecturing and examinations as per the government requirements. The findings showed that specifying the teaching and learning pedagogies and performance assessment impacts on integrating sustainability into the accounting curriculum because sustainability accounting in Jordan will require the use of a range of different pedagogies and assessment methods. Thus, to integrate sustainability into the accounting curriculum the government should reduce its control over not only the accounting fields of knowledge, but also the prescribed teaching and learning pedagogies and assessment.

The findings also showed that bureaucracy is one of the challenges educators encounter if they attempt to integrate sustainability education in the accounting curriculum. Integrating sustainability education into the Jordanian curriculum requires educators to perform a number of different administrative procedures because such integration needs approvals from the university management (e.g., the Dean of the business school), the Ministry of Higher Education, and the HEAC. These approvals are complex and consume time and effort. The findings indicated that Jordan's bureaucracy, particularly when dealing with the government,

discourages educators from considering introducing sustainability accounting education into the curriculum.

Sustainability accounting education also encounters institutional challenges in that stakeholders are not playing their roles in supporting sustainability accounting education effectively. The findings indicated that educators are powerless to bring change into the accounting curriculum by integrating sustainability into the accounting curriculum because of the definitive role of the government. Educators believe that both the accounting profession and industry are not supporting educators to gain control over the universities' accounting curriculum. The view of industry indicated that it is only the responsibility of educators to include sustainability education in the curriculum. Industry saw its role as minor and as confined to only the social dimension of sustainability practices. The view of the accounting profession suggests that educators, industry, and the profession itself have not supported sustainability accounting education and practices. The accounting profession's view is that the profession lacks the power to support educators in their claims or improve corporate sustainability practices. The profession's view also indicates that there are no urgent claims for sustainability integration into the accounting curriculum because accounting education and accounting practices are both currently compatible with the needs of businesses and the profession's requirements (e.g., IFRS and GAAP). The findings also show that students' role is extremely minimal because students in Jordan cannot influence the accounting curriculum and they lack basic knowledge of sustainability accounting education.

The study also found a clear lack of sustainability practices in Jordan. The lack of these, therefore, constitutes a challenge to integrating sustainability into the accounting curriculum. The educators suggested that the lack of corporate sustainability practices is due to the lack of government legislation and legal enforcements. It was found that although the Ministry of Environment has issued different governmental legislations and laws, it is unable to force businesses to commit to these laws and legal requirements. It was also found that the lack of corporate practices relates to the fact that the current practices are compatible with the regulations and standards issued by the accounting profession.

Jordan suffers from a lack of social awareness about sustainability and accountability. The findings indicated that Jordanian society has an important role in supporting sustainability issues. However, the findings suggested that Jordan society is not playing its role effectively. Jordanians lack awareness of their right to demand accountability to mitigate adverse corporate

practices. The findings suggested that Jordanian society should have a definitive role in supporting sustainability education in business schools.

Despite these challenges, this study's findings showed that Jordan will benefit from sustainability accounting education if it is implemented. The findings indicated that sustainability accounting education will add value to the current accounting curriculum. Integrating sustainability into the accounting curriculum will make the Jordanian accounting curriculum more comprehensive and competitive and thus will boost its reputation. The findings indicated that this added value lies in the fact that sustainability accounting education will highlight the qualitative knowledge in accounting including its value to the environment and society. The findings showed that adding this missing qualitative accounting knowledge will boost the curriculum's ability to compete worldwide where different perspectives on accounting are included (e.g., shareholders as well as stakeholders' perspectives). It was also found that sustainability accounting education increases the society's appreciation of accounting education because sustainability accounting opens new avenues through which accountants can address social and environmental issues.

Sustainability accounting education also benefits accounting students. It will enhance students' knowledge and develop the skills they need in their future careers. Sustainability accounting enables students to think subjectively and to consider the needs of society and the environment in their future decision-making in the workplace. Sustainability accounting helps students solve critical environmental issues such as the poor use of water in Jordan using environmental management accounting tools. In addition, sustainability accounting helps students evaluate current corporate sustainability practices to discover whether these practices are genuine or simply greenwashing.

Sustainability accounting helps students understand corporate governance issues and the environmental laws and regulations that business organisations have to follow. Findings showed that sustainability accounting equips students with analytical and investigative skills and critical thinking that influence their future decisions when problem-solving issues concerning their society and environment. It was also found that sustainability accounting equips students with communication skills and reporting. Sustainability accounting education can produce a generation of graduates who can increase social awareness. It was concluded that all the benefits of integrating sustainability into the Jordanian curriculum will eventually be viewed favourably by Jordanian society.

10.3.4 How can an Integrated Sustainability Accounting Model be Developed in the Jordanian Accounting Curriculum?

To integrate sustainability education into the accounting curriculum, this study developed a salient stakeholder-driven model for sustainability accounting education in Jordan. The model (see Figure 9.2) fits the Jordan context because it is based on a data-triangulation of the study's findings on the benefits of sustainability accounting education as perceived from the Jordanian salient stakeholder perspective and because it addressed the related challenges. The model shows how salient stakeholders should be involved in facilitating the integration of sustainability education into the accounting curriculum in Jordan.

The model focuses on addressing the major governmental and institutional challenges in that it guides the Jordanian salient stakeholders in terms of their roles in influencing the integration process of sustainability accounting education. The model accordingly distributes the three attributes of the salient stakeholder theory (power, legitimacy, and urgency) amongst them in a way that enables them to play their roles effectively and shows the participatory role that each group can play in facilitating the integration process. The model suggests that the government's role (Ministry of Higher Education and the HEAC) is to control only the general educational policies without impacting on educators' academic decisions on what and how to teach. To do so, the government should possess only legitimacy and urgency, leaving power in the hands of educators.

The model also suggests that the decision to integrate sustainability education into the accounting curriculum and develop related materials should be taken by educators. To achieve this integration, educators need to exercise their autonomy through power, legitimacy, and urgency. The model suggests that the educators' role is a definitive one. The model also indicates that the role of both businesses and the accounting profession in Jordan is to guide the integration process externally by providing educators with their suggestions and recommendations in terms of setting the learning objectives of sustainability accounting education in Jordan. Their external guidance role requires them to possess only the legitimacy and urgency attributes. The model suggests that accounting students have an internal guidance role as they can provide educators with feedback on the educational process of sustainability accounting. This requires them to have the urgency attribute.

In addition, the model addresses the major educational, ideological, and social challenges and utilises the major benefits of sustainability accounting education based on the Jordanian salient

stakeholder perspective. It guides accounting educators on how to develop the main components of sustainability accounting education in Jordan based on the data triangulation of the salient stakeholders' needs and expectations for sustainability accounting education. For this purpose, the model suggests that educators follow six steps. These are:

- 1- Performing a salient stakeholder analysis to identify related stakeholders and understand their needs.
- 2- Planning for sustainability accounting education by setting the learning objectives and skills development.
- 3- Designing for sustainability accounting education by determining the appropriate methods of integration, the specific areas of knowledge, and the academic resources required.
- 4- Delivering sustainability accounting education by determining the appropriate pedagogies and related resources.
- 5- Determining the students' academic performance assessment methods.
- 6- Evaluating and moderating the overall education process of sustainability accounting.

The model, which is based on the data triangulation in this study, provides educators with a practical six-step plan for integrating sustainability accounting education in Jordan. The next section explains the contribution of this study.

10.4 Contribution of the Study

This study contributes to knowledge and the literature of sustainability accounting education. Its contributions are methodological, theoretical, and practical.

10.4.1 Methodological Contribution

This study makes a methodological contribution to the sustainability accounting education literature through its adoption of the pragmatic paradigm and a sequential explanatory mixed method approach to investigate the sustainability accounting education phenomenon. The study first adopted the quantitative paradigm to explore how important it is to integrate sustainability education into the accounting curriculum and the salient stakeholders' needs and expectations of sustainability accounting education in Jordan. Seven hundred and two questionnaires were analysed for this purpose. The study also adopted the interpretivism/qualitative paradigm to understand the challenges and benefits of sustainability accounting education in Jordan. Forty-six semistructured interviews were analysed for this

purpose. The study triangulated data from both the quantitative and qualitative findings to develop a salient stakeholder-driven model of sustainability accounting education in Jordan. The study sought the perspectives of a wide group of participants including accounting educators, governmental employees, accountants working in both industrial organisations and the accounting profession in Jordan, and accounting students. Other studies of this type have tended to focus on only one or two groups of stakeholders (e.g., students and educators).

10.4.2 Theoretical Contribution

This study extends existing knowledge on the importance of adopting sustainability education in the business schools of developing countries and on the stakeholders' needs and expectations regarding integrating sustainability education into the accounting curriculum. Studies in this regard are lacking, particularly in the Middle East. This study also attempts to understand how Jordanian salient stakeholders play their roles in influencing the accounting curriculum. Research in this regard is also lacking, particularly in developing nations within the Middle East region. This study also adds significantly to the research literature by documenting new findings relating to the challenges and benefits of integrating sustainability into business schools' education, particularly the accounting curriculum in developing countries. The study extends knowledge on the adoption of frameworks and approaches to include sustainability in the business and accounting curricula.

This study contributes to theory by explaining how the three attributes of the salient stakeholder theory (power, legitimacy, and urgency) are distributed currently amongst the Jordanian salient stakeholders that participated in this study. The study also developed a theoretical framework that explains how the three attributes of salient stakeholder theory (power, legitimacy, and urgency) should be distributed amongst the Jordanian salient stakeholders, and what roles these salient stakeholders should have in order to facilitate the integration of sustainability education into the accounting curriculum in Jordan. This study contributes to the literature by adopting the salient stakeholder theory as a lens to understand how the Jordanian salient stakeholders influence the integration of sustainability education into the accounting curriculum. This understanding was arrived at by analysing and discussing the findings of the interviews on the challenges and benefits of integrating sustainability into the accounting curriculum in Jordan. This study has extended the implications of the salient stakeholder theory to include a relatively new field of research, i.e., sustainability accounting education in a developing nation, Jordan.

This study indicates that there is an inappropriate distribution of power, legitimacy, and urgency amongst the Jordanian salient stakeholders and that this imbalance hinders the integration of sustainability education into the accounting curriculum. The study indicates that the government of Jordan currently possesses power, legitimacy, and urgency and that it plays a definitive role in controlling the accounting curriculum. Accounting educators in Jordan possess only legitimacy and urgency, but are without power; thus, they lack the autonomy to integrate sustainability education into the accounting curriculum. The study also indicates that businesses in Jordan possess power and urgency and that these enable them to use the government to control the accounting curriculum indirectly. The accounting profession in Jordan possesses only the legitimacy from the society, and without urgency, it cannot push for integrating sustainability into the accounting curriculum. This study indicates that current Jordanian accounting students possess none of the three attributes of the salient stakeholder theory, which makes them unable to participate in the integration process.

The theoretical framework developed for Jordan suggests that the government should control only general educational policies and so leave room for accounting educators to make the decision to integrate sustainability education into the accounting curriculum. This position requires the government to abandon the power attribute in favour of educators so that educators can have full autonomy to make academic decisions. Businesses in Jordan should abandon their power and attempt to gain legitimacy to participate in curriculum setting directly instead of influencing it indirectly through the government. The accounting profession should express urgent claims about sustainability accounting education and its role in influencing the accounting curriculum. Accounting students also should express urgent claims for the integration of sustainability into the accounting curriculum.

10.4.3 Practical Contribution

The salient stakeholder-driven model of sustainability accounting education developed in this study contributes significantly to the work of the Ministry of Higher Education and the HEAC which may be considering revising their educational policies and strategies when setting the accounting curriculum in Jordanian universities. Globally, universities including business schools are significant providers of sustainability education. However, the findings show that educational institutions in Jordan need cooperation from the government, the industrial sector, and the accounting profession to manage the development of the ongoing education process. The developed model provides the Jordanian salient stakeholders including the government,

accounting educators, businesses, the accounting profession, and accounting students with practical insights on how to play their roles effectively and collaboratively to influence the accounting curriculum in a way that facilitates the integration of sustainability into the accounting curriculum. The developed model also provides accounting educators with practical steps to prepare for sustainability accounting education in the context of Jordan. It highlights the main headings of the content of sustainability accounting education at a bachelor's level. The model facilitates the implementation of sustainability in accounting education in Jordan. It should help to bring about changes and to improve the teaching of sustainability education from an accounting perspective.

This study, particularly the developed model, provides a practical example for developing countries within the Middle East on how they can adopt sustainability education in their business schools. These countries could benefit from the model by determining their related salient stakeholders and assessing their roles in influencing business and accounting curricula. The model could also help them to develop the content of sustainability accounting education in their own contexts. The Jordanian stakeholders share common beliefs, culture, and behaviours with others in Middle Eastern countries, which makes their opinions and perceptions a good practical example that can be followed by other studies in the Middle East. The next section outlines the implication of this study.

10.5 Implications and Critical Reflections for Policy and Practice

The findings of this study have several practical and policy implications for the Jordanian salient stakeholders including the government (the Ministry of Higher Education and the HEAC), accounting educators, businesses, the accounting profession, and accounting students. In general, this study strongly recommends integrating sustainability education into the accounting curriculum of Jordanian business schools. The salient stakeholder-driven model developed in this study can significantly guide the integration process. The study concluded that there is a lack of synergies amongst salient stakeholders with regard to integrating sustainability education into the accounting curriculum. This study recommends that salient stakeholders have to communicate and cooperate with each other on whether or not to integrate sustainability education into the accounting curriculum. The implications recommended for each of the Jordanian salient stakeholders are as follows.

10.5.1 The Government

The Jordanian Ministry of Higher Education and the HEAC should leave their definitive role in controlling the accounting curriculum and, instead, oversee the general educational policies of universities. In this way, the government grants autonomy to accounting educators, as the most expert group of salient stakeholders in accounting education, to make academic decisions relating to sustainability accounting education. The Ministry and HEAC should give freedom to accounting educators to manage their academic relationship with accounting students. For example, accounting educators need the power to decide what and how to teach within the general educational policies (education guidelines) of the government. They also need the power to cooperate with business organisations and the accounting profession to achieve better accounting education.

The HEAC has to reconsider the way the fields of knowledge are determined for the accounting discipline. Specific criteria should govern the selection of members of the HEAC committee that determines these fields of knowledge, and members should not be chosen on the basis of the head of the HEAC's preferences only. In addition, the job of the committee members should not be to set the accounting fields of knowledge. Rather, it is recommended that the fields of knowledge are sent to all accounting departments of business schools for feedback; the suggestions of these departments should then be given serious consideration by the members of the committee. The job of the committee should be to discuss the feedback and suggestions from accounting departments regarding the given fields of knowledge. In this way, all accounting departments will have the autonomy to participate in determining the prescribed fields of knowledge for the accounting discipline.

The Ministry of Higher Education and the HEAC should also give educators, as the only group of experts in teaching accounting, the freedom/autonomy to teach and assess students in the way they deem most appropriate. This study recommends that the Ministry and the HEAC allow educators to use different methods of teaching and assessment in the classroom. The Ministry and the HEAC should share information with the accounting departments in all business schools in order to reach the most appropriate decision that serves all parties. They should also allow a bottom-up decision-making style where decisions can be made at a lower level of management. In this way, educators can avoid bureaucracy in decision-making. Tsai and Beverton (2007) believe that the bottom-up decision-making style is the most effective and flexible style in the field of education.

The Ministry of Environment and the Ministry of Industry should hold regular meetings with business leaders to discuss the environmental consequences of their industries and to convince these leaders of the importance of committing to Jordan's environmental laws and regulations. The Ministry of Environment, in cooperation with the Ministry of Industry, should organise sustainability awareness campaigns and programmes for industrial practitioners, particularly for employers. They should also impose, with confidence, a set of punishments for those companies that breach the environmental laws and regulations, and design a set of rewards for those that show environmental commitments. The government can be an important influence on businesses practices and reporting and can influence businesses' decision-making (Situ, Tilt, & Seet, 2020). This study also recommends that the Ministry of Higher Education and the HEAC should cooperate with the Ministry of Environment to integrate environmental legislation-related topics into the business and accounting curriculum. The government of Jordan should take advantage of society's dominant role to push businesses to practise sustainability. The government should run public awareness-raising campaigns in each Jordanian city to help society perceive its right to counter adverse business practices.

10.5.2 The Accounting Educators and Students

Accounting educators need to gain power and practise autonomy in academic decision-making. They should object to the way the accounting fields of knowledge are determined and to the way teaching and learning pedagogies are controlled. Accounting educators need to raise the issue of sustainability accounting education with universities' managements (e.g., the Deans of the business school and the Deans' board in the university). Doing so will highlight the issue for the HEAC's committee responsible for determining the fields of knowledge for the accounting discipline. Accounting educators need to do research in the field of sustainability accounting and organise conferences to highlight its potential benefits for Jordan. These activities will help sustainability issues, including sustainability accounting education, to gain the interest not only of Jordanian scholars, but also the HEAC committee that is responsible for determining the accounting fields of knowledge.

Accounting educators need to adapt foreign academic resources on sustainability accounting, and start authoring sustainability accounting materials that consider the learning objectives, skills development, and related areas of knowledge highlighted in this study. Accounting educators need to focus on qualitative accounting courses and help students to become familiar with qualitative knowledge through teaching students about the relationships among

accounting, business organisations, and society. This focus will enhance educators' and students' understanding of the value relevance of sustainability accounting. Accounting educators also need to reconsider the structure of the current accounting curriculum. Accounting educators should help the society of Jordan know its rights around practising accountability. They can teach the society, through social media, ways to practise accountability as a dominant stakeholder (e.g., by dealing only with environmentally friendly companies and explaining the environmental consequences of a specific organisation on a TV show).

Accounting students need to at least possess some urgent claims for better and modern accounting education instead of the traditional accounting curriculum. Accounting students should be more demanding and participate/involve themselves in integrating sustainability education into the accounting curriculum by activating their role as internal guidance in the process. They should be able to provide their educators with the necessary feedback and suggestions on the accounting curriculum content and sustainability education. Accounting students need to increase their awareness of contemporary accounting issues including sustainability accounting by not confining their knowledge to only what exists in the current curriculum. Students can extend their knowledge using strategies such as self-learning and reading for pleasure. In this way, students can become aware of the contemporary accounting issues and make urgent claims to have these included in their curriculum.

10.5.3 Industrial Practitioners and Accounting Profession

Business organisations in Jordan should communicate directly with business and accounting educators and participate in curriculum setting instead of practising power over the government to influence educational policies. Through direct participation in the accounting curriculum, business organisations should play an external guidance role in supporting sustainability accounting education whereby they provide accounting educators with their suggestions and recommendations on what to include in sustainability accounting education. Business organisations also should hold sustainability-related training courses for employees to increase awareness and knowledge of corporate sustainability practices and enhance sustainability-related skills. Organisations can run an international training course sourced from one of the leading sustainability universities (e.g., The University of Cambridge Institute for Sustainability Leadership). Such courses help practitioners gain interest in sustainability practices and education. Such courses should increase businesses' commitment to Jordanian

environmental legislations and laws. Camilleri (2016) believes that the provision of professional development and training enhances corporate sustainability practices. Business organisations should cooperate with business schools to facilitate several student field visits per year so that educators do not have to seek organisations' approval for the field visits (e.g., signing a long-term memorandum). Business organisations should sponsor sustainability awareness campaigns created by the government and universities.

The Jordanian accounting profession needs to consider sustainability accounting education as an urgent claim and call for successive reforms to the accounting curriculum that include sustainability education. These calls for reforms should be forwarded to the government to highlight the importance of sustainability in accounting education for Jordan. The accounting profession is encouraged to include sustainability topics in its professional exams including the JCPA and to be involved in participating in the accounting curriculum setting by accrediting some of the accounting courses in the curriculum. The accounting profession in Jordan should participate in integrating sustainability into the accounting curriculum through its external guidance role where the professions' suggestions and recommendations are passed to educators for consideration in forming the accounting curriculum. The accounting profession in Jordan should also sponsor public awareness campaigns as well as private campaigns which should be more professional/advanced and target the industrial sector in Jordan to show industrial practitioners the importance of corporate sustainability practices. Such campaigns also can be undertaken in cooperation with accounting educators and under the supervision of international sustainability specialists.

The recommended implications of this study can be summarised in the following major recommendations:

- The Jordanian salient stakeholders need to rethink and reconsider their roles in influencing accounting education and its curriculum to facilitate integrating sustainability education into the accounting curriculum.
- The Jordanian salient stakeholders need to communicate and collaborate to adopt sustainability accounting education. Their synergies of effort are essential to facilitate the integration process.
- The Jordanian salient stakeholders need to raise public awareness of sustainability education in society.

- The Jordanian salient stakeholders need to raise awareness at an institutional level for practitioners and academics.
- The Ministry of Higher Education and the HEAC need to make significant changes of their policies and strategies of controlling accounting education in Jordanian universities.
- Accounting educators need to consider the learning objectives and skills development and related areas of knowledge highlighted in the salient stakeholder-driven model when authoring sustainability accounting materials for the Jordan context.
- The government of Jordan needs to seek ways to gain more power over business organisations to be able to enforce environmental legislation and regulations.
- The accounting profession in Jordan needs to be involved in business and accounting education and to be able to accredit some accounting courses and call for sustainability accounting education.
- Accounting students need not confine their knowledge to only the current accounting curriculum. They also need be aware of contemporary issues to be able to provide their educators with needed feedback and suggestions.

The first step to implement these recommendations is for the Jordanian government to enable accounting educators to have freedom and authority to bring about changes in the accounting curriculum and integrate sustainability education into the curriculum. The next section explains the limitations of the study.

10.6 Limitations of the Study

This study has some limitations. For example, there is the issue of generalisation. Although the sample used for the quantitative part of the study is statistically representative, as 702 stakeholders participated in it, the qualitative sample's 46 interviewees may not be representative of the population in some areas as the study was conducted in a Middle Eastern country context. Nevertheless, recurring themes were obtained and accordingly the researcher believes that the sample is fairly representative. In addition, this study was focussed on a developing country in the Middle East and may not be generalisable to other developing countries which also have significant sustainability issues. The next section highlights future research possibilities.

10.7 Recommendations for Future Research

This study suggests some areas of future research. For example, Jordan needs more studies in the field of sustainability education in business schools to encourage education providers to understand the importance of sustainability education and to take meaningful action to address the environmental degradation in the country. This study has provided an example to be followed in directing future business studies to focus on sustainability in business and accounting education. Other Jordanian studies can also extend the work of this thesis by investigating the possibilities of adapting the developed salient stakeholder-driven model (particularly the course content) more simply in Jordanian secondary schools to increase their students' awareness of sustainability issues before moving to a university level of education. It is never too early to teach and for students to learn about their responsibilities to address sustainability concerns. Other studies can investigate sustainability accounting education in other developing countries and make a comparison between their findings and the findings of this study to gain a better and more comprehensive understanding to the overall sustainability education position in business schools in developing countries (for instance, other Arabic countries in the Middle East).

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Appendix 1: Accounting Curriculum Framework Imposed by the Jordanian Higher Education Accreditation Commission (HEAC)

Table A.2 The basic theoretical obligatory fields

Field of knowledge	The minimum credit hours
Financial Accounting: Principles of Accounting (1), Principles of Accounting (2), Intermediate Accounting and Accounting for Companies (1), Intermediate Accounting and Accounting for Companies (2), Advanced Accounting	12
Accounting Theory and International Standards: Financial Statement Analysis, International Accounting Standards, Accounting Theory, International Accounting.	12
Management Accounting and Auditing: Management Accounting, Cost Accounting, Auditing, International Standards on Auditing.	12
Accounting Systems: Accounting Information System, Tax Accounting, governmental Accounting, Bank Accounting and Insurance.	12

Table A.3 Support fields

Field of knowledge	The minimum credit hours
Economics, Finance, Management Information System, Statistics and Mathematics for Management Science.	12

Appendix 2: The Accounting Curriculum at Yarmouk University



**Faculty of Economics and Administrative Sciences
Accounting Department**

STUDY PLAN FOR THE BACHELOR'S DEGREE IN ACCOUNTING

The Bachelor's Degree in Accounting is awarded upon the fulfillment of the following requirements:

- The conditions specified in the Regulations for the Awarding of the Bachelor's Degree at the Faculty of Economics and Administrative Sciences.
- 132 hours are needed to satisfy Degree Requirements as follows:

First: University requirements (27 credit hrs) which include:

a- Obligatory courses (21 credit hrs):

Course No.	Course Title	Credit Hours
LS 100*	English Language Skills I	3
LS 111	English Language Skills II	3
MS 100	Military Sciences	3
AR 100	Arabic Language I	3
AR 102	Arabic Language II	3
HIST 102	Education of Citizenship	3
CS 100	Introduction to Computer Application	3

* Subject to English equivalent exam

b- Elective requirements (6 credit hrs) to be chosen from courses offered by university colleges other than the College of Business and Administrative Sciences. (The Students can take Management Skills Course for 498)

Second: Faculty requirements (24 credit hrs)

Course No.	Course Title	Credit Hours
ACC 101	Principles of Accounting	3
BA 101	Fundamentals of Management (1)	3
PAD 160	An Overview of Public Management	3
BF 210	Principles of Finance (1)	3
CS 101 C	Selected Programming Language (Visual Basic)	3
STAT 107	Statistical (Non Science Students)	3
ECON 101	Principle of Macroeconomics	3
ECON 105	Principle of Mathematical Economics	3

Third: Department requirements (81 credit hrs):

1. Single major course requirements (81 credit hrs), as follows:

a- Obligatory courses (75 credit hrs):

Course No.	Course Title	Credit Hours
ACC 102	Fundamentals of Accounting (2)	3
ACC 201	Intermediate Accounting (1)	3
LAW 121	Commercial Law	3
ECON 200	Research Methods in Economics	3
PAD 201	Organization Behavior	3
MKT 220	Principles of Marketing 1	3
BA 230	Quantitative Analysis 1	3
PAD 270 A	Fundamentals of Public Finance	3
BF 311	Investment	3
ACC 202	Intermediate Accounting (2)	3
ACC 210	Accounting For Companies	3
ACC 311	Bank Accounting	3
ACC 321	Accounting for Governmental and Non-Profit Organizations	3
ACC 331	Cost Accounting (1)	3
ACC 341	Financial Statement Analysis	3
ACC 351	Auditing (1)	3
ACC 361	Tax Accounting	3
ACC 371	Computerized Accounting	3
ACC 402	Advanced Financial Accounting	3
ACC 431	Cost Accounting (2)	3
ACC 432	Management Accounting	3
ACC 451	Auditing (2)	3
ACC 471	Accounting Information Systems	3
ACC 480	Accounting Theory	3
ACC 491	Research	3

b- Elective requirements (6 credit hrs)

Must be chosen from Accounting Department (200 level and above).
(The Students can take Management Skills Course for 498)

Degree Requirements/ Major in Accounting

132 hours are needed to satisfy the degree requirements as follows:

Requirements	Obligatory Courses	Elective Courses	Total
University	21	6	27
College	24	-	24
Department	75	6	81
Total	120	12	132

2. Major in Accounting / Minor in other departments (81 credit hrs):

a. Obligatory courses (60 credit hrs):

Course No.	Course Title	Credit Hours
ACC 102	Fundamentals of Accounting (2)	3
ECON 102	Principle of Microeconomics	3
BA 101	Fundamentals of Management (2)	3
Econ 200	Research Methods	3
ACC 201	Intermediate Accounting (1)	3
PAD 201	Organization Behavior	3
ACC 202	Intermediate Accounting (2)	3
ACC 210	Accounting For Companies	3
MKT 220	Principles of Marketing 1	3
BA 230	Quantitative Analysis 1	3
BF 311	Investment	3
ACC 321	Accounting for Governmental and Non-Profit Organizations	3
ACC 331	Cost Accounting (1)	3
ACC 351	Auditing (1)	3
ACC 361	Tax Accounting	3
ACC 402	Advanced Financial Accounting	3
ACC 431	Cost Accounting (2)	3
ACC 432	Management Accounting	3
ACC 480	Accounting Theory	3
ACC 491	Research in Accounting	3

(The Students can take Management Skills Course for 498) as Elective Course.

b. Minor in other departments (21 credit hrs):

These courses are chosen by the student. This is an opportunity to individualize your degree, to make it reflect your personal skills and talents. A minor specialization can be chosen from any of the following areas: All Departments at the Faculty of Business and Administrative Sciences, Law, Computer Science, Information Technology, Management Information Systems, Mathematical Statistics, Applied Statistics, Mathematics, English Language, Political Science, Shari'a, Economics & Islamic Institutions.

Degree Requirements/ Major in Accounting/Minor

132 hours are needed to satisfy Degree Requirements as follows:

Requirements	Obligatory Courses	Elective Courses	Total
University	21	6	27
College	24	-	24
Department	60	-	81
Minor Requirements	According to the Minor requirements		21
Total			132

3. Minor in Accounting (21 credit hrs):

First: Students of the Faculty of Economics and Administration Sciences departments:

a. Obligatory courses (15 credit hrs):

ACC 201, ACC 202, ACC 341, ACC331, ACC 351.

b. Elective courses (6 credit hrs):

To be chosen from the 200 level courses and above offered by the Departments of Faculty of Economics and Administrative Sciences as well as BA 498.

Second: Students from outside the Faculty of Economics and Administration Sciences.

a. Obligatory courses (15 credit hrs):

ACC 101, ACC 102, ACC 201, ACC 202, ACC 331.

b. Elective courses (6 credit hrs):

Chosen from the 200 level courses and above offered by the Accounting Department as well as BA 498.





Academic Plan Form

Faculty: Economics & Administrative Sciences
Program: Bachelor

Division: Department of Accounting

Ser	Course Code	Course Name	Course Description	Credit hours Num.		Prerequisite
				Theoretical	Practical	
1	Acc 101	Fundamentals of Accounting (1)	Basic Concepts, the double-entry, accounting system, the accounting cycle, merchandising operations, cash transactions and receivables and commercial papers, special journals, preparation of financial statements.	3	-	Acc 101
2	Acc 102	Fundamentals of Accounting (2)	Inventories and cost of goods sold, accounting problems relating to long-lived assets, short-term liabilities, payroll accounting, introduction to partnership accounting and corporations accounting. Prerequisite: Acc 101.	3	-	Acc 102
3	Acc 201	Intermediate	Introduction to financial accounting	3	-	Acc 201

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		Accounting (1)	theory, measurements of the elements of financial statements, accounting for assets applications on the international accounting standards. Prerequisite: Acc 102. Short-term liabilities, stockholders equity, correction of errors, disclosures of changes in accounting methods, revenue measurement and income determination, accounting for leases and pension, statement of sources and uses of fund, applications of the international accounting standards. Prerequisite: Acc 201.			
4	Acc 202	Intermediate Accounting (2)	Definition and characteristics of a partnership, formation at a partnership, division of profits and losses, changes of partnership capital, admission and retirement of partners, partnership financial statement, consolidation and liquidation. Prerequisite: Acc 102.	3	-	Acc 102
5	Acc 210	Accounting For Companies	Introduction to partnerships accounting and corporation accounting, forming partnerships and corporation, measuring profitability of partnership and corporations, accounting for liquidation, admission or withdrawal of	3	-	Acc 102

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			allocation, joint and by-products, income statement of manufacturing companies. Prerequisite: Acc 102.			
10	Acc 341	Financial Statements Analysis	Methods used to analyse financial information which could reveal the financial strength or weakness on any firm, analysis of balance sheet, analysis of income statement, analysis of statement of cash flows. Prerequisite: Acc 102.	3	-	Acc 202
11	Acc 351	Auditing (1)	Introduction, professional code of ethics, objectives and responsibilities of auditors, types of audit evidence and documentation, audit planning, estimating materiality and risk, study and evaluation of internal control system, auditing of sales and collection cycle, auditing report, international auditing standards. Prerequisite: Acc 202.	3	-	Acc 102
12	Acc 361	Tax Accounting	Objectives of tax systems, efficiency and equity of taxes, tax structure in Jordan, Jordanian income tax law, computing income tax for employees, individuals, partnerships and corporations with different activities,	3	-	Acc 102

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			evaluation of income tax law and accounting for Zakat. Prerequisite: Acc 102.			
13	Acc 371	Accounting applications on Computer	Using computers in recording and classifying financial transactions, preparing the financial statements, and inventory control. Prerequisite: Acc 102.	3	-	Acc 102
14	Acc 381	Islamic Accounting	Accounting measures in Islam, elements of expenditures and revenues, accounting for Islamic Banks, accounting for Zakat, accounting for inheritance. Prerequisite: Acc 102.	3	-	Acc 202
15	Acc 401	Problems and Cases in Accounting	Accounting tools for dealing with different types of problems and cases including problems of sole proprietorship, partnerships, corporations, co-operatives, agricultural projects, inflation accounting. Prerequisite: Acc 202	3	-	Acc 202
16	Acc 402	Advanced Financial Accounting	Advanced aspects in branches, mergers, re-organization liquidation, and consolidated financial statements, foreign currencies transactions. Prerequisite: Acc 202.	3	-	Acc 331

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16	Acc 431	Cost Accounting (2)	Standard cost accounting and deviation analysis, variable and absorption costing, cost behavior, regression analysis, cost estimation, advanced aspects of process costing, contract costing. Prerequisite: Acc 331.	3	-	Acc 102
18	Acc 432	Management Accounting	Introduction to management accounting, cost-volume-profit relationship for multi-product firms, short-term decisions, the comprehensive budget, capital budgeting, divisional performance measurement and transfer pricing. Prerequisite: Acc 102.	3	-	Acc 351
19	Acc 451	Auditing (2)	Tests of transactions, tests of balances, auditing samples, cases, international auditing guidelines. Prerequisite: Acc 351	3	-	Acc 202
20	Acc 471	Accounting Information Systems	Concepts related to analyzing, designing, using improving and controlling of effective accounting information systems, application to computers. Prerequisite: Acc 202.	3	-	Acc 202

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21	Acc 480	Accounting theory	The role of accounting theory, accounting conventions, accounting principles, statements of fund and cash flow, interpreting and comparing of financial reports, financial accounting for holding companies, current cost accounting, accounting for social responsibility, Prerequisite: Acc 202.	3	-	
22	Acc 491	Research	Scientific research methods in accounting, theoretical studies, methods of data accumulation, testing and analyzing of data, writing the report.	3	-	Department Approval

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Appendix 3: Questionnaire Survey-Introductory Letter and Participants' Information Sheet

Introductory letter to participants – Questionnaire Survey

Waikato Management School

Te Raupapa



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

School of Accounting, Finance and Economics

Waikato Management School

The University of Waikato

Hmaka1@students.waikato.ac.nz

December 2017

This letter is to invite you to participate in my research project titled:

A Salient Stakeholder-driven Model for Integration of Sustainability Education into the Accounting Curriculum in Jordan

Dear Sir/Madam,

I am a doctoral student at the University of Waikato, New Zealand. My research investigates the sustainability education environment in relation to the accounting curricula of universities in Jordan.

Jordan faces challenges in sustainable business practices due to industrialisation. It is envisaged that accounting education has an important role in bringing about sustainability practices and corporate social responsibilities in Jordan. This research investigates the integration of sustainability education into the accounting curriculum within the Jordanian universities. I invite you to participate in this survey. The completion of this questionnaire is expected to take 20 to 30 minutes. Participation in this survey is voluntary. Completing the survey indicates informed consent. Your response is anonymous. Please do not provide your name, contact details or similar information. The results of the research will be reported in the Doctorate thesis and may result in academic publications. Please read the attached information sheet, which provides further details before completing this survey. I appreciate your valued participation in this research study, and I feel that the results will contribute significantly to

Participant Information Sheet - Questionnaire Survey

Waikato Management School

Te Raupapa



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

better sustainability education in Jordan. If you have any comments or queries, please feel free to contact the researcher or his supervisors: Dr. Mary Low and Dr Umesh Sharma.

I look forward to your participation in this research.

Yours sincerely,

Huthaifa

E-mail: Hmaka1@students.waikato.ac.nz

Mobile: +64 21 2503538

A Salient Stakeholder-driven Model for Integration of Sustainability Education into the Accounting Curriculum in Jordan

This research is part of a doctoral thesis at the University of Waikato that aims to investigate the sustainability education environment in relation to the accounting curricula of universities in Jordan. The study aims to develop a model for sustainability accounting education for the universities of Jordan. The following individuals are associated with this research:

Researcher	Chief Supervisor	Supervisor
Huthaifa Mohammed Al Hazaima School of Accounting, Finance and Economics Waikato Management School The University of Waikato Hmaka1@students.waikato.ac.nz Mobile: +64 21 2503538	Dr Mary Low Accounting Convenor, School of Accounting, Finance and Economics Waikato Management School The University of Waikato Mary.low@waikato.ac.nz +647 8562889 ext. 9270	Dr Umesh Sharma School of Accounting, Finance and Economics Waikato Management School The University of Waikato umesh.sharma@waikato.ac.nz +647 8562889 ext. 4247

What will my participation in the study involve?

You have been invited to participate in this research study through a questionnaire survey. You have been identified as someone who would be able to provide valuable information about the issue under investigation. You are kindly asked to provide your answers for the questions in the questionnaire survey. Your answers should express your opinion relating to the questions. The information you provide is to be used for the purpose of the research study to investigate the sustainability education environment in relation to the accounting curricula of universities

in Jordan. All provided information will be kept confidential and used only for achieving the aim of this study. Data will be analysed and published anonymously. The data also will be stored securely during the research, and read-access will be available only to the researcher as well as his supervision panel. Upon the completion of research, all raw data will be destroyed. The participation in this research is voluntary. You are free to withdraw at any time of the study up to February 28, 2018. You may also decline to answer any particular questions without giving a reason for that. Completing the survey indicates informed consent. If you require more information or clarification on any aspect of this research, you can contact the researcher or his supervisors using the contact details provided in this information sheet. The results will be published in a doctoral thesis. It is likely that the research results will also be published in peer-reviewed journal articles, presented at seminars, and academic conferences. Finally, as a participant you can request and be provided with a summary copy of the findings.

Appendix 4: Questionnaire Survey Used for this Study

Questionnaire Survey

Part 1: Demographic Data

1. Please tick the box that describes you:
 - Male
 - Female

2. If you are a university accounting educator, please answer questions (a) and (b).
 - a. How many years of lecturing have you done?
 - Less than 5 years
 - 5 to 10 years
 - More than 10 years

 - b. What is your level of education?
 - Assistant Professor
 - Associate Professor
 - Full Professor

3. If you work at industry, accounting firm, or the government (Ministry), please answer the questions (c), (d) and (e).
 - c. Where do you work?
 - Industrial organisation
 - Accounting firm
 - The government (Ministries)

 - d. How many years of working experience have you had?
 - Less than 5 years
 - 5 to 10 years
 - More than 10 years

 - e. What is your level of education?
 - Bachelor
 - Master
 - Other, please specify

4. If you are a university accounting student, please tick the box below to confirm that you are a third or fourth-year accounting student.
 - I am a Third-year accounting student
 - I am a Fourth-year accounting student

Part 2: To explore the Potential Role of Sustainability Accounting Education (SAE) in Jordan.

- To what extent do you agree to the following statements? Please tick the box.

Potential role of Sustainability Accounting Education (SAE) in Jordan could be:		<i>Strongly disagree (1)</i>	<i>Disagree (2)</i>	<i>Moderate (3)</i>	<i>Agree (4)</i>	<i>Strongly agree (5)</i>
1	Increasing students' awareness of organisations' commitments towards social and environmental (sustainability) issues.					
2	Extending the scope for including traditional non-financial disclosures reporting as numbers (calculations) in accounting.					
3	Filling a gap in students' accounting education.					
4	Enhancing accounting functions to extend beyond short-termism profit maximisation issues.					
5	Highlighting and underpinning the need for accountability and transparency in Jordanian society.					
6	Developing new methods and systems of accounting in industries.					
7	Establishing the connection between non-financial and financial values within organisations.					
8	Equipping future managers with required knowledge to prepare and implement sustainability implications plans.					
9	Supporting the good well of Jordanian educational system in the Middle East.					
10	Producing more rationale generation of managers who can lead industries with much care to the corporate social responsibilities.					

Part 3: To assess the potential usefulness of integrating SAE into the Accounting Curricula within Jordanian universities.

- Please tick the box in accordance with your perceived level of ‘importance’.

Integrating SAE into the accounting curricula of Jordanian universities is important because it could be useful in:		<i>Not Important (1)</i>	<i>Less Important (2)</i>	<i>Moderate (3)</i>	<i>Important (4)</i>	<i>Very Important (5)</i>
1	Developing intellectual ability and critical thinking of students.					
2	Understanding global sustainability issues.					
3	Enhancing future sustainability practices of industries.					
4	The complex process of corporate decision-making regarding environmental and social (sustainability) consequences of Jordanian industry.					
5	Helping both government and industry formulate future effective sustainability policies, guidelines and strategies in Jordan.					
6	Changing the focus of accounting profession to be not only on the financial accounting but also on the non-financial accounting.					
7	Underpinning and clarifying the link between sustainability accounting, corporate social responsibility and corporate governance.					
8	Assessing the impact of sustainability reporting practices on corporate performance.					
9	Promoting transparent sustainability reporting practices for external stakeholders in Jordan.					
10	Developing a corporate sustainability accounting framework that supports better corporate sustainability practices.					

Part 4: To assess if the integration of SAE will address the aims of Jordanian Higher Education.

- Please tick the box in accordance with your perceived level of ‘importance’.

The integration of SAE into the accounting curricula is important because it will address the following “Aims of the Jordanian Higher Education”:		<i>Not Important (1)</i>	<i>Less Important (2)</i>	<i>Moderate (3)</i>	<i>Important (4)</i>	<i>Very Important (5)</i>
1	Preparation of qualified human resources who are specialised in various fields of knowledge to meet the needs of the community.					
2	Deepening the Islamic faith, its ethics and spiritual values, and enhancing the sense of national belonging.					
3	Providing an academic, research, psychological and social supportive environment appropriate for innovation, excellence and the burnishing of talents.					
4	Increasing interest in the national heritage, national culture, world cultures, and students’ general culture.					
5	Contributing to the development of knowledge in the areas of science, literature, the arts, and others.					
6	Encouraging, supporting, and upgrading scientific research, especially the applied scientific research aims of community service and development.					

Part 5: To explore the most appropriate methods of integrating SAE into the accounting curricula within Jordanian universities.

- Please tick the box in accordance with your perceived level of ‘importance’.

The important methods of integrating SAE into the accounting curricula could be through:		<i>Not Important (1)</i>	<i>Less Important (2)</i>	<i>Moderate (3)</i>	<i>Important (4)</i>	<i>Very Important (5)</i>
1	Adding sustainability accounting topics to individual sessions (lectures) of accounting papers within the existing accounting curricula structure.					
2	Developing one <u>elective</u> new stand-alone paper of sustainability accounting to the existing accounting curricula.					
3	Developing one <u>compulsory</u> new stand-alone paper of sustainability accounting to the existing accounting curricula.					
4	Mixed methods of 1 and 2 above.					
5	Mixed methods of 1 and 3 above.					
6	Developing a package of sustainability specialisation (more than one paper) to be integrated into the accounting curricula.					
7	Integration into the entire existing accounting curricula throughout all accounting papers.					
8	Integration into all business disciplines’ curricula as new papers to be required for all business students.					

Part 6: To explore the most essential topics of SAE to be integrated into the accounting curricula of Jordanian universities.

- Please tick the box in accordance with your perceived level of ‘importance’.

The important topics of sustainability accounting that could be integrated into the accounting curricula are:		Not Important (1)	Less Important (2)	Moderate (3)	Important (4)	Very Important (5)
1	Fundamentals and concepts of corporate sustainability framework.					
2	Principles, guidelines and regulations of corporate sustainability.					
3	Understanding the link between sustainability and other related terms such as corporate social responsibility, triple bottom line and corporate governance.					
4	Relevant theories related to corporate sustainability such as stakeholder & legitimacy theories.					
5	Sustainability implementations in financial accounting.					
6	Sustainability implementations in cost and management accounting.					
7	Corporate sustainability disclosure of accounting information.					
8	The role of sustainability accounting information in decision-making process.					
9	Measurement systems of corporate sustainability performance.					
10	Accountability and responsibility towards sustainability through spending and commitments.					
11	Sustainability and taxation issues and pollution allowances.					
12	Sustainability audit issues.					
13	Sustainability accounting implementations in solving global sustainability issues such as the environmental degradation.					
14	History and development of Global Reporting Initiative (GRI) that helps organisations understand and communicate their impacts on issues such as climate change, human rights and corruption.					
15	Guiding principles and content elements of Integrated Reporting (IR) developed by the Association of Chartered Certified Accountants (ACCA). IR aims to value creation beyond financial terms, bringing about more accountability and transparency.					

Part 7: To gain more perspectives about the integration of sustainability education into the accounting curriculum within Jordanian universities.

▪ Please answer the following questions.

A. What do you think could be the potential challenges of integrating sustainability education into the accounting curriculum in Jordan?

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B. Do you have any other comments that will contribute to this research project on sustainability education in Jordanian universities?

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Thank you for your participation in this questionnaire survey

Appendix 5: Interviews-Introductory Letter and Participants' Information Sheet

Introductory letter to participants – Semistructured interviews

Waikato Management School

Te Raupapa



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

School of Accounting, Finance and Economics

Waikato Management School

The University of Waikato

Hmaka1@students.waikato.ac.nz

August 2018

This letter is to invite you to participate in a research project entitled:

A Salient Stakeholder-driven Model for Integration of Sustainability Education into the Accounting Curriculum in Jordan

Dear Sir/Madam,

I am currently studying for a doctorate at the University of Waikato, New Zealand. My research investigates the sustainability education environment in relation to the accounting curricula of universities in Jordan.

Jordan faces challenges in sustainable business practices due to industrialisations. It is, therefore, envisaged that accounting education has an important role to play in bringing about sustainability practices and corporate social responsibility in Jordan. My research investigates the integration of sustainability education into the accounting curriculum within Jordanian universities, and I would like to invite you to participate in this Semi-structured interview. The interview process is expected to take 40 to 60 minutes. Although participation in this interview is voluntary, **completing the interview indicates informed consent.** Your response will be anonymous, so you will not be asked to provide any personal information that could identify you. The results of the research will be reported in my doctoral thesis and may, it is hoped, also result in academic publications.

Please read the attached information sheet before starting the interview.

Your valued participation in this research study would be greatly appreciated, because I believe that the results of this investigation will contribute significantly to better sustainability education in Jordan. If you have any comments or queries, please contact either me or my supervisors: Dr Mary Low and Dr Umesh Sharma.

Participant Information Sheet – Semistructured Interviews

Waikato Management School

Te Raupapa



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

I look forward to your participation in this research.

Yours faithfully,

Huthaifa Hazaima

E-mail: Hmakal@students.waikato.ac.nz

Mobile: +64 21 2503538

A Salient Stakeholder-driven Model for Integration of Sustainability Education into the Accounting Curriculum in Jordan

I am currently doing a PhD at the University of Waikato. My research investigates the sustainability education environment in terms of the accounting curricula of Jordan's universities. The study aims to propose a model for sustainability education in the current accounting curricula of Jordanian universities. The following individuals are associated with this research:

Researcher

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What will my participation in the study involve?

You have been invited to participate in this research study because you have been identified as someone who can provide valuable information about the issue under investigation. Participation involves providing your answers to the questions in the Semi-structured interview. Your answers should express your opinion regarding the questions. The information you provide is to be used for the purpose of a research study, which investigates the sustainability education environment in relation to the accounting curricula of universities in Jordan. All provided information will be kept confidential and used only for achieving the aim of this study.

Data will be analysed and published anonymously. In addition, the data will be stored securely during the research period. Upon the completion of the research, all raw data will be destroyed. Participation in this research is voluntary. If you decide to participate in this study, you are free to withdraw from it at any time up to end of September 2018. You may also decline to answer any of the questions without giving a reason for doing so. **Completing the interview indicates informed consent.** If you require more information or clarification on any aspect of this research, you can contact the researcher or his supervisors using the contact details provided in this information sheet. The results of this research will be published in a doctoral thesis. It is likely that the research results will also be published as articles in peer-reviewed journals, presented at seminars, and at academic conferences. Finally, as a participant you may request, and be provided with, a summary copy of this study's findings if you wish.

Appendix 6: Semistructured Interview Key Questions

Research Topic: A Salient Stakeholder-driven Model for Integration of Sustainability Education into the Accounting Curriculum in Jordan

Semistructured Interview Key Questions

Before beginning this interview, can you please confirm your consent for taking part in this interview session?

Q1- In your opinion, is there any space in the current accounting curriculum for one or two compulsory sustainability accounting paper(s)? [Please consider the Higher Education Accreditation Commission Model and the current structure of the accounting curriculum in your answer].

Q2- What are the aims, objectives, specific requirements and learning outcomes that need to be addressed by a paper on sustainability accounting, and what should the structure of this paper be?

Q3- At which level do you think a paper on sustainability accounting should be offered; 100, 200, 300 or 400-level of study in the Bachelor's degree? Please explain why.

Q4- What are the skills, characteristics, attributes and knowledge that you think a sustainability accounting paper should address?

Q5- What are the important topics that a standalone paper on sustainability accounting should have to provide the necessary skills, characteristics, attributes and knowledge to accounting graduates?

Q6- What are the important teaching and learning pedagogies that accounting educators require that will contribute to students' learning towards the needed learning outcomes on sustainability accounting education [or in general, accounting education]?

Q7- What do you think are important assessment items that a sustainability accounting course should have to allow for measurement of students' performance in this paper?

Q8- Participants of the survey questionnaire in Phase 1 of the data collection process indicated the topics provided below as important. Looking at the compulsory accounting papers in the

current curriculum in Jordan, where and how is it possible to integrate the following topics?
[Please discuss the topics one by one].

- I. Disclosure of corporate sustainability accounting information.
- II. Sustainability implementations in cost and management accounting.
- III. Role of sustainability accounting information in the decision-making process.
- IV. Sustainability accounting implementation in solving global sustainability issues such as environmental degradation.
- V. Principles, guidelines and regulations relating to corporate sustainability.

Q9- Do you think it is possible to integrate sustainability education into not only the accounting curricula but also into all the curricula of business disciplines?

Q10- What are the challenges of bringing sustainability education into the current accounting curricula in Jordan? What are your suggestions for addressing such challenges?

Q11- How could sustainability education influence the current (traditional) accounting curricula?

Q12- How could sustainability education, if integrated throughout the accounting curricula; benefit accounting students?

Q13- How could sustainability education, if integrated throughout the accounting curricula; serve both the society and environment in Jordan?

Q14- Do you have any further comments or suggestions that may help the proposal to develop a model of sustainability education for integration into the accounting curricula of Jordan?

Q15- Do you have any further comments on my research topic: Sustainability Education in the Tertiary Accounting Curricula in Jordan?

Thank you for participating in the interview and giving your consent to use this data in my thesis. Thank you also for taking the time to answer my questions. It would be my pleasure to share the findings of my study with you once it is available.

Appendix 7: Ethics Approval

WAIKATO MANAGEMENT SCHOOL

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THE UNIVERSITY OF

WAIKATO

Te Whare Wānanga o Waikato

Huthaifa Al Hazaima

August 2018

Dear Huthaifa

Ethical Application WMS 18/73

A Salient Stakeholder-Driven Model for Sustainability Accounting Education in Jordan

The above research project, as outlined in your submitted application, has been granted Ethics Approval for Research by the Waikato Management School Human Research Ethics Committee.

Please note: should you make changes to the project outlined in the approved ethics application, you may need to reapply for ethics approval.

Best wishes for your research.

Regards,

Amanda Sircombe

Amanda Sircombe
Research Manager