# PERSONAL VARIABLES, ORGANISATIONAL VARIABLES, AND MORAL INTENSITY DIMENSIONS UNDERLYING EXTERNAL AUDITORS' ETHICAL DECISION MAKING: EGYPTIAN EVIDENCE

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#### Abstract

Academic and professional attention towards ethics in business in general and audit ethics in particular has grown significantly following well-documented audit failures and corporate scandals. Several empirical studies have been carried out to investigate the factors underlying such auditors' ethics. The majority has been done in the USA and other developed countries, often using undergraduate student convenience samples. They have provided clearly mixed results and have tended to focus on only one or two stages of the ethical decision making (EDM) model devised by Rest (1986). This study sought to build and improve on the previous research by investigating the impact of a broad set of personal, organisational, and issue-specific variables on three stages of external auditors' EDM process. Moreover, it did so in a developing country, namely Egypt, which is the largest country by population in the MENA (Middle East and North Africa) region.

This study hypothesised that personal variables (gender, age, educational level, position level, work experience, certification status, professional commitment, and personal moral philosophy), organisational variables (code of ethics, firms size, ethical climate types), and moral intensity dimensions are significantly related to the different stages of external auditors' EDM process. Using a relatively large sample, data was collected via a questionnaire which include four context-based external audit ethics scenarios. An adapted Arabic version of the questionnaire translated using translation-back translation technique was administered to Egyptian participants and usable responses were received from 393 external auditors working for 19 international audit firms in Egypt. For each scenario, the EDM process was examined in terms of the recognition, judgment and intention stages of Rest's model.

While moral intensity was originally conceptualised as a six-dimensional construct, factor analysis revealed only two dimensions, which were named 'perceived social pressure' and 'actual harm'. Results show that these two dimensions, particularly social pressure, are the strongest predictors of auditors' three stages of EDM. Ethical climate types and personal moral philosophy also showed some significant results. Significant and positive results were also found regarding firm size, work experience, position level, and certification status. However, findings revealed that age, educational level, code of ethics, and professional commitment have very limited impact on auditors' EDM stages. Interestingly, when gender differences were found, male auditors exhibited more ethical choices than females. Findings reinforces the need to give more attention to auditors' socialisation and training, as well as the importance of continuing professional education to enhance auditors' EDM abilities. Egyptian audit firms should also pay more attention to their organisational ethical infrastructure and maintain an organisational consensus regarding unethical acts. Using alternative methodologies and inclusion of the ethical behaviour stage in future studies, may aid future research in complementing these results, thus provide an enhanced understanding of auditors' ethical decisions. At the very least, future studies should study all the first three stages, as in this research, rather than focusing on only one or two stages. Additionally, cross-cultural audit ethics studies represent a fruitful avenue for future research. The questionnaire used in this study could be used, with minimal adaptations, in other countries.

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## List of Abbreviations

- APC Affective Professional Commitment
- **BIDR** Balanced inventory of Desirable Responding
- **CPC** Continuance Professional Commitment
- **DIT** Defining Issues Test
- ECQ Ethical Climate Questionnaire
- EDM Ethical Decision Making
- **EFA** Exploratory Factor Analysis
- EIAA Egyptian Institute of Accountants and Auditors
- **EPQ** Ethics Position Questionnaire
- **EPT** Ethics position Theory
- ESAA Egyptian Society of Accountants and Auditors
- IM Impression Management
- IMS Impression Management Scale
- MCS Marlow-Crowne Scale
- MJI Moral Judgment Interview
- NPC Normative Professional Commitment
- PC Professional Commitment
- PCQ Professional Commitment Questionnaire
- **PSO** Premature Sign-off
- QCU Quality Control Unit
- SDRB Social Desirability Response Bias

# Chapter One Introduction and Background

#### **1.1 Introduction**

Ethical practices of audit firms in general and auditors' ethical decision making (EDM) have been commonly viewed as important aspects of external audit practice. External auditors' ethical behaviour represents the foundation for building trust in the public mind. However, audit firms are now striving to repair the tarnished image and reputation of the profession after trust in audit firms and audit profession in general has been questioned. This mistrust was raised by the spate of audit and corporate failures in recent years accompanied by allegations of improper professional conduct of in-charge auditors, including the energy-trading giant, Enron and its auditor, Arthur Andersen, WorldCom in the U.S., Parmalat, Royal Ahold, and Vivendi Universal in Europe. In some corporate frauds, external auditors were accused of having either cooperated with or simply kept silent about unethical behaviours committed by their client's officers (Johari, Mohd-Sanusi, & Chong, 2017).

Following these scandals, academic concerns about weak ethical reasoning of external auditors were raised in recent years. Several efforts were devoted to investigate the issue of ethics within the accounting profession in general, and audit profession in particular. Numerous empirical studies were conducted to investigate reasons behind such an ethics failure, involving assessment of auditors' moral development, accounting education and the training needs of external auditors (e.g., Abdolmohammadi & Ariail, 2009; Abdolmohammadi, Read, & Scarbrough, 2003; Bernardi & Arnold, 1997, 2004; Cohen, Pant, & Sharp, 1998, 2001; Ibrahim & Angelidis, 2009; Low, Davey, & Hooper, 2008; Martinov-Bennie & Mladenovic, 2015; Ponemon, 1990, 1992b, 1993a; Ponemon & Glazer, 1990; Sweeney & Costello, 2009; Sweeney & Roberts, 1997; Thorne & Magnan, 2000; Thorne, Massey, & Magnan, 2003). Significant attention was also paid to evaluating the effectiveness of business ethics education in enhancing accounting students' ethical attitudes (Maisarah, Stacey, & Gordon, 2010). Several studies were also conducted to evaluate

the effectiveness of formal professional sanctions as a deterrent to unethical behaviour (Shafer & Morris, 2004; Shafer, Morris, & Ketchand, 1999), as well as investigating the effect of broader considerations such as institutional context on auditors' EDM abilities (e.g., Thorne, Massey, & Jones, 2004; Thorne et al., 2003; Tsui & Windsor, 2001; Tsui & Gul, 1996). These investigations, through examining factors that may influence audit professionals' ethical attitudes, may pave pathways for enhancing auditors' EDM abilities and/or mitigate the risks of auditors' unethical behaviours, and thus protect the business world from another corporate failure. In an attempt to contribute to this literature, it is the objective of this study to examine a broad range of factors (personal, organisational and moral intensity) that may influence external auditors' EDM stages in a developing country, namely Egypt. Drawing upon ethical reasoning theories and models developed in the business ethics context and a review of empirical EDM research, a conceptual framework of these factors and how they may be related to auditors' ethical choices was developed and tested using a quantitative methodology.

This chapter is designed to provide the essential background of the current study. Following this introduction, a section provides the basic background of the study. The third section highlights the issue of ethics in external audit practice. In the fourth and fifth sections, the motivations underlying this study, and the research aims are put forward respectively. An overview of the Egyptian cultural and institutional audit context, the theoretical underpinnings of the current study and the methodology adopted in this study are presented in the next three sections. Finally, a brief overview of the thesis structure is presented in the last section.

#### **1.2 Background of the Study**

Based on Kohlberg's (1981) work on individuals' moral development, Rest (1986) developed his four-stage model of ethical action, which has framed the majority of EDM research in the business area in general (see for review: Craft, 2013; Lehnert, Park, & Singh, 2015) and external audit ethics specifically (see for review: Jones, Massey, & Thorne, 2003; Ponemon & Gabhart, 1994) (see Chapter Two).

Rest (1986) conceptualised EDM as a process involving four stages. He suggests that an individual's ethical behaviour is a result of a four-stage cognitive process triggered by the presence of an ethical dilemma. This process comprises 1) ethical recognition at which an individual identifies the ethical dimension of a given situation; 2) ethical judgment - which involves determining the right ethical actions to resolve the ethical dilemma; 3) ethical intention - which involves prioritising ethical actions over other possible actions; and 4) ethical behaviour/action - which involves engaging in the ethical action. He maintained that success in one stage does not imply success in subsequent stage(s); an individual's ability to discern the presence of ethical issues (ethical recognition) does not necessarily imply well-developed moral reasoning (ethical judgment). Rest's model of ethical action inspired several auditing researchers to examine external auditors' EDM. While some examined only one stage (e.g., Karcher, 1996; Ponemon, 1990), others studied two or more stages (e.g., Cohen & Bennie, 2006; Gul, Ng, & Wu Tong, 2003; Thorne, 2000). Jones (1991) maintained that despite its simplicity, Rest's model has captured all the key elements of EDM and behaviour.

Rest's conceptualisation of EDM also inspired several EDM theorists. Based on Rest's model, several interactionist models were then developed and combined a wide range of individual, situational and organisational variables to explain and predict the EDM of individuals in organisations. Their important contributions cannot be undervalued. These models posit that EDM in business organisations is explained by the interaction of personal and contextual components.

A contingency framework for EDM in marketing has been offered by Ferrell and Gresham (1985) in which an ethical dilemma emerges from the social or cultural environment that an individual has to attempt resolving through engaging in a logical, rational cognitive process. Their model asserts that a set of contingency factors is likely to affect the behaviour of the decision maker including individual factors (e.g., values, knowledge) and organisational variables (e.g., significant others and opportunity for unethical choices).

Later, Trevino (1986) introduced a person-situation interactionist EDM model and suggested that an individual's judgment of ethical issues is moderated by several personal variables (e.g., ego strength, locus of control) and situational variables such as immediate job context, organisational pressures and culture. Additionally, Hunt and Vitell (1986), in their EDM model, posited that personal variables (e.g., personal experience and ethical orientation), and environmental variables (e.g., cultural, organisational, and industrial) may influence EDM components.

A significant contribution to the EDM literature has been advanced by Jones (1991) when he synthesised and built on prior EDM models and incorporated his moral intensity construct. He argued that an individual's EDM is contingent on the characteristic of the ethical issue. His issue-contingent model posits that differences in individuals' ethical choices could be explained in part by the characteristics of the ethical issue itself (moral intensity dimensions).

In general, theoretical EDM literature introduced several variables that are likely to influence EDM within business organisations. These variables were categorised into firstly, personal variables that relate to decision maker including those variables linked to the circumstances related to an individual's birth (Demographics: e.g., age, gender, religion, nationality). Personal variables also include psychological variables that are related to human development and socialisation processes (e.g., cultural values, moral development, professional commitment, personal moral philosophy, educational and employment levels).

Secondly, organisational variables that include all factors that do not relate to the decision maker. They are "components of the firm and the business environment that can influence ethical behaviour" (Lehnert et al., 2015, p. 203). These factors include for example organisational size, code of ethics, socialisation processes, training and ethical culture/climate. Thirdly, moral intensity dimensions that relate to characteristics of the ethical issue itself, including for example magnitude of consequences and social consensus.

#### **1.3** The Moral Nature of External Audit Practice

Ethical dilemmas confronting external auditors should be considered as an inherent trait of the external auditing profession. The ethical nature of the external auditor's behaviours could be easily shown through noting two different dimensions of the external auditor's role. The first dimension is concerned with external auditor's duties and responsibilities to diverse stakeholders, while the other dimension stems from the fact that external auditors are required to make judgments regarding how to fulfil these duties and responsibilities.

With respect to the first dimension, Ponemon and Gabhart (1993) indicated that the ethical domain of the accounting and auditing constitutes diverse players, including the client organisation, the accounting firm, the accounting profession and the society as a whole. Furthermore, external auditors have an ethical obligation to the public to perform their audit task with integrity, trustworthiness and objectivity. They are appointed by the shareholders to provide reasonable assurance about client management assertions concerning the fair presentation of the financial statements. At the end of the audit process, this assurance is presented in an audit report that is of interest to various stakeholders. These relationships that represent the cornerstone of the external audit profession imply that it is a process that deals with diverse stakeholders including creditors, shareholders, debtors, management and government. Each of these parties has its own interests that might conflict with others' interests, and even with the auditor's self-interest. Ponemon (1990) stated that the external auditor acts as a cornerstone in a relationship that constitutes inherent conflicts of interests.

Within the auditing domain, two approaches have been commonly adopted to refer to "conflict of interests". They are: conflict of obligations, and conflict of interests/obligations (Gunz & McCutcheon, 1991). Conflict of obligations is found when the auditor's obligations towards diverse parties are in conflict with each other. Adams, Malone, and James (1995) referred to conflict of obligations when they described a confidentiality dilemma as a conflict between the auditor's obligation to the public to disclose relevant information, and his/her obligation to the client to maintain confidential client information when the client wishes not to reveal it to the

public. However, conflict of interests arises when the auditor's self-interest is in conflict with his/her professional obligation. Craswell, Stokes, and Laughton (2002) referred to this approach when they investigated alternative ethical dilemmas concerning the conflict between auditors' self-interest related to fee dependence, and their obligation to the public to provide independent judgment about client's financial statements.

Whether to use either approach to refer to conflict of interests, it has been demonstrated that conflict of interests is the origin of many ethical problems confronting external auditors (Moore, Tetlock, Tanlu, & Bazerman, 2006; Nelson, 2006). Blodgett, Lu, Rose, and Vitell (2001) indicate that an ethical dilemma arises when the best interests of one party are at odds with the best interests of another.

Many ethical problems in external auditing profession stem from the inherent mutually exclusive external auditor's responsibilities to the general public, accounting firm at which the auditor is employed, as well as the client organisation (Ponemon & Gabhart, 1994). Research has demonstrated that an external auditor is subject to many ethical challenges from assessing client management while deciding client acceptance/retention to reaching final decision and issuing the audit report (e.g., Abdolmohammadi & Owhoso, 2000; David, Kantor, & Greenberg, 1994; Doucet & Eprile, 2000; Gunz & McCutcheon, 1991; Ponemon & Gabhart, 1993).

Several attempts have been made to identify ethical dilemmas confronting external auditors (e.g., Gunz & McCutcheon, 1991; Leung & cooper, 1995). Finn, Chonko, and Hunt (1988) conducted an empirical examination pertaining to senior-level AICPA members and found that highly frequent reported ethical problems confronting external auditors were: client requests to alter tax returns and commit tax fraud, conflict of interest and independence, client request to alter financial statements, in addition to personal-professional problems. They added that it is perceived by CPAs that opportunities to engage in unethical behaviour exist within the auditing domain. Recently, in a study conducted by Guiral, Rodgers, Ruiz, and Gonzalo (2010), it was found that audit ethical dilemmas were broadened to constitute

conflict of interest that makes external auditors avoid the issuance of warning-signals to stakeholders. Through a survey pertaining to eighty partners and audit managers, the authors found that external auditors are subject to unintentional bias to avoid issuance of qualified opinions. They claim that external auditors are subject to an ethical conflict of interests between self-prophecy versus the responsibility of providing early warning signals to stakeholders.

With respect to the second dimension, in addition to the inherent "conflict of interests" that characterises the external auditing profession, the auditing profession is not uniquely different from other professions in that its professionals (external auditors) are required to use their personal technical judgment whilst performing their professional tasks. Auditors are expected to exert their personal professional judgment in many areas, for example: judgments about audit risk and materiality as well as judgments about internal control assessments. These judgments might also constitute some ethical dimensions. Ethical dilemmas are often embedded in auditor's technical judgments. Dickerson (2009) argued that complex technical and ethical judgments could distinguish external auditor's decision-making process in order to illuminate this complex process.

Windsor and Ashkanasy (1995) conducted interviews with senior audit partners from first-tier multinational public accounting firms and provided some empirical evidence about the existence of audit ethical dilemmas embedded within auditor's professional judgment. They provided an example of an audit ethical dilemma when client management confronts an auditor judgment to disclose information to the public and it exerts its power to prevent disclosure of such information. Similarly, Shaub (1994) states that auditor's EDM abilities is associated with his/her materiality judgments, risk perceptions, control environments, and evaluation of independence. He argued that an auditor's ethical EDM abilities seem to influence a number of audit judgments.

While all these imply the importance of the ethical dimension of the external auditing function, some researchers still believe that external auditors do not realise the extent to which their practice has an ethical dimension. Flanagan and Clarke (2007) claim that auditors failed to recognise that all aspects of their work have an ethical dimension. They claimed that growing external controls placed on external auditing profession by government and professional organisations (Sarbanes-Oxley Act and PCAOB in U.S and Companies Act of 2006 and FRC in U.K) are a result of external auditors' failure to recognise ethical issues.

EDM of external auditors is also linked to many audit judgments and decision making processes, for example, Ponemon and Gabhart (1993) argued that auditors' decisions concerning client management could be influenced by his/her EDM abilities and in turn could impact all aspects of the audit engagement. Ponemon (1993b) also found through a two-phased empirical study that external auditor's ethical reasoning level induce his/ her professional assessment of client management traits of competence and integrity. He argued that auditors who reason their ethical actions at higher levels of ethical reasoning might be more sensitive to surroundings of fraudulent financial reporting than their counterparts at lower ethical reasoning levels. They found that auditor's ethical reasoning could predict the influence of perceived client competence and integrity upon audit risk. They added that different audit managers' ethical reasoning levels are associated with different audit risk assessments.

Even more, when Kerler (2005) examined whether Certified Public Accountants' (CPAs) level of moral reasoning affects their decision to and the extent of trust of a client's management, the results showed that CPAs with relatively higher levels of moral reasoning have less trust in the client's management than CPAs with relatively lower levels of moral reasoning. These findings indicate that an auditor's decision to trust a client's management is, at least in part, an ethical judgment.

It is apparent that external auditor's EDM could impact different aspects of the audit engagement, and thus could influence the overall audit quality. Thus, in order to be able to enhance auditor's ethical reasoning abilities, it is essential to understand how external auditors reason their ethical action. Abdolmohammadi and Richard (2008, p. 58) state that "the more we learn about EDM process, the more we are potentially able to influence positive ethical behaviour and assist in restoring the public trust".

#### **1.4 Research Motivation**

External auditors have been chosen for this study given their unique role they can play in either mitigating the risks of reoccurrence of corporate frauds or disclosing unethical behaviours committed by their client's officers. In doing their role, external auditors are required to uphold the standards of professional conduct including due diligence, professional scepticism, independence, and objectivity. In general, a study of external auditors' ethical decisions and the variables associated with these ethical decisions became more pervasive given the recent debate concerning the commercialisation of the external audit profession (Sikka, 2009, 2015).

Secondly, relative to the wider business ethics literature, limited number of studies have been conducted in the external audit context (e.g., Bernardi, 1994; Bobek, Hageman, & Radtke, 2015; Karcher, 1996; Pierce & Sweeney, 2010; Sweeney, 1995). This study is motivated by the need to add new empirical evidence concerning the variables that influence external auditors' EDM. Gaining an immense understanding of external auditors' EDM capabilities and variables influencing them may assist in paving pathways for enhancement.

Thirdly, within the external audit ethics research, the majority has focused on personal variables in relation to auditors' ethical practices (e.g., Abdolmohammadi & Ariail, 2009; Abdolmohammadi et al., 2003). Very few researchers tended to examine the impact of contextual factors on external auditors' EDM stages (e.g., Buchan, 2005; Pflugrath, Martinov-Bennie, & Chen, 2007; Shafer, 2008). Given the importance of contextual factors in EDM process documented in the general business ethics literature (Craft, 2013), there is a need to reveal their role in external auditors' EDM process. Contextual variables could be more controllable by organisations than personal variables and thus, revealing their role in external auditors' EDM process could also assist in mitigating the risk of unethical behaviours.

Fourthly, this study is motivated by the scant research that has been conducted in developing countries regarding individuals' ethical attitudes and behaviour in general. Most of the research has been done in the US and Europe and the results might not be transferable across countries. Additionally, research focusing on EDM in business practice in the Arab and Middle Eastern region generally, and in the Egyptian business context in particular emerged recently, and it has been very limited (e.g., Beekun, Hamdy, Westerman, & HassabElnaby, 2008; Marta, Singhapakdi, Attia, & Vitell, 2004; Sidani, Zbib, Rawwas, & Moussawer, 2009), with the majority has been carried out in the area of marketing and consumer ethics (e.g., Al-Khatib, Al-Habib, Bogari, & Salamah, 2016; Al-Khatib, Dobie, & Vitell, 1995; Al-Khatib, Vitell, & Rawwas, 1997; Al-Khatib, Vitell, Rexeisen, & Rawwas, 2005; Tsalikis & Lassar, 2009). Furthermore, despite these efforts, cross national differences in ethical attitudes observed among Arab and Middle Eastern countries obscures general conclusions from findings reported (Sidani et al., 2009). On the other hand, very scant attention has been given to the area of accounting ethics in these countries. These limitations in the literature of business ethics in general and accounting ethics specifically are one of the primary motivations to conduct the current research.

Fifthly, this study is also motivated by the international diversity of audit firms around the globe. It is important to understand how auditors from different cultures reason their ethical actions. The collection of more empirical evidence from different cultures, such as Egypt, can assist in determining the extent to which the auditing practices of international audit firms have been harmonised or, at least, it may help in achieving the desired harmonisation. Research generally suggests that national cultural differences influences external auditors' professional judgments in general and ethical attitudes and decisions specifically (Bik, 2010; Nolder & Riley, 2014; Patel, Harrison, & McKinnon, 2002; Sormunen, Jeppesen, Sundgren, & Svanstrm, 2013). Thus, assumptions made by professional audit firms networks operating crossnationally related to the possibility to attain a single global set of audit procedures and codes of professional conduct to be applied within diverse cultural contexts should be questioned. This study intends to explore the nature of external auditors' EDM in a developing audit context namely, Egypt. It is anticipated that this study represents a

significant contribution to the development of the growing and important field of external audit ethics generally and international audit ethics specifically.

This study attempts to fill these literature gaps by proposing and testing a model of personal, organisational, and moral intensity dimensions effects on Egyptian external auditors' EDM process.

#### **1.5 Research Aims**

Following from the above research motivations, the primary objective of the current research is to explore external auditors' EDM process in a developing country context namely, Egypt. In particular, this study aims at determining the personal, organisational variables and moral intensity dimensions that influence external auditors' EDM in Egypt. This study seeks to achieve some specific objectives:

- To determine the relationship between certain personal variables (gender, age, educational level, auditor's position level, certification status, work experience, personal moral philosophy, and professional commitment) and Egyptian external auditors' EDM stages.
- To determine the relationship between certain organisational variables (firm size, code of ethics, ethical climate) and Egyptian external auditors' EDM stages.
- To determine the relationship between perceived moral intensity dimensions (magnitude of consequences, social consensus, temporal immediacy, concentration of effect, probability of effect, proximity) and Egyptian external auditors' EDM stages.

#### **1.6 The Egyptian Context**

Egypt, the country of focus for this study, is a developing, North African, Middle Eastern, Arab republic country with the majority of Muslim population. Geographically, Egypt has a unique strategic location; a north African country sharing borders in the west with Libya, Sudan in the south, connected with Europe in the north through the Mediterranean Sea, and through the Red sea in the east with Saudi Arabia and Palestine. It is considered a main economic power in both the Arab world and Africa. It has the largest population in the Arab world; the majority of which

speak Arabic as the official language. With the rapid growth of population, the limited amount of arable land and with deserts occupies most of the country, Egyptian population density is among the highest in the world. All economic activities, which are almost agricultural activities, are concentrated along the banks of the Nile, which is the longest river in the world. The Egyptian Economy depends heavily on agriculture and tourism. Major economic sectors include banking, capital markets, insurance, IT and telecoms, real estate and construction. Egyptian people value the family relationships as the most important part of the societal life. Family relatives represents a main element in almost all relationships of the society (Alnaas, James, & Scott, 2013).

Historical features of Egypt, including the Islamic and Arabic civilisations influenced greatly the life, culture, and society of Egypt. According to Hofstede (1980), national cultural differences among nations is conceptualised along four dimensions, they are, power distance, uncertainty avoidance, masculinity/femininity, and individualism/ collectivism. Egypt scored low in individualism and hence it was considered as a collectivistic country. Collectivism entails a culture where individuals of the society look after one another. Individuals place interests of the groups ahead of their individual interests. Beekun et al. (2008) maintained that Egyptians have a long tradition of emphasising collectivism as part of their cultural values since they have grown adapted with the absence of individual freedom.

According to Hofstede (1980), Egypt also scored high in the power distance dimension. This indicates that Egyptians are more acceptable of unequal distribution of power. In this regards, Beekun et al. (2008) noted that Egyptians emphasise the authority figures and more likely to tolerate an uneven distribution of power. Axinn, Blair, Heorhiadi, and Thach (2004) maintained that people's cultural values may determine their personal priorities among ethical principles in daily life and supports the notion that culture affects an individual's values and ethics. National Culture dimensions were found to affect different aspects of an individual's EDM, including ethical recognition (e.g., Chan & Cheung, 2012; Husted & Allen, 2008; Singhapakdi, Vitell, & Leelakulthanit, 1994), judgment (e.g., Christie, Kwon, Stoeberl, &

Baumhart, 2003; Cohen, Pant, & Sharp, 1995a; Jeffrey, Dilla, & Weatherholt, 2004; Sweeney, Arnold, & Pierce, 2010), intention (e.g., Singh, Vitell, Al-Khatib, & Clark, 2007; Vitell et al., 2003; Westerman, Beekun, Stedham, & Yamamura, 2007), an individual's personal moral philosophy (e.g., Forsyth, O' Boyle Jr, & McDaniel, 2008; Singhapakdi et al., 1994; Swaidan & Rawwas, 2008), ethical climate within organisations (e.g., Parboteeah, Cullen, Victor, & Sakano, 2005; Venezia & Venezia, 2012).

According to Forsyth et al. (2008), Egypt is one of the five nations that were classified as absolutist in their ethics position along with Poland, South Africa, and to a lesser degree with Saudi Arabia and Korea. **Absolutists** (low relativism and high idealism) believe that through conformity to moral rules and standards, actions are ethical provided they yield positive consequences (Forsyth, 1992). Absolutists believe that one should maintain a strict adherence to general moral principles but at the same time strive to produce positive consequences (Forsyth et al., 2008). Musbah, Cowton, and Tyfa (2016) noted that one of the factors that might explain this is Islam, and maintained that Muslims are more idealistic and less relativistic since Islam urges strict adherence to the ethical rulings of the Quran (high idealism), and places ethical/social activity ahead of individual benefits.

In the past few years, ethical issues have been raised to a great extent in Egypt. Ethical issues and its associated economic and political corruption were among primary factors that ignited the 2011 uprisings. Egypt has been faring poorly in terms of corruption indicators; According to the 2016 Annual Corruption Report issued by transparency international, Egypt scored 34 on a 100-point scale, where 100 represents very clean (no corruption) and 0 represents a highly corrupted country, Egypt ranked 108 out of 176 countries.

The auditing profession has been recognised in Egypt for many years. Egypt has been one of the pioneering countries in the profession of accounting and auditing. The Egyptian auditing profession has a long history of development that reflects the historical and social features of the country. The organisation of the Egyptian audit profession has passed through three stages of institutionalisation, a period before 1961, a period from 1961-1974 and from 1974-to present. Before 1961, foreign firms were allowed to make associations with local firms or to practice the audit profession independently. During this period, the existence of international firms in the Egyptian audit market made a radical change and drastic effect on the development of the profession. This period has witnessed the enactment of the first accounting and auditing practice law no.133/1951. In 1961 that witnessed the nationalisation process of all the economic activities, the ownership of all economic activities was transferred to the state government; the private audit market was then scaled down drastically resulting in the demise of many audit firms in the country. In 1974, application of the "open door" policy and the transition from a socialist economy to market economy has established the audit profession once again in Egypt.

The legal-setup of the audit profession in Egypt comprises four main laws that governing the audit professionals in Egypt. Accounting practice Law No. 133/1951 and its amendments are the principle law governing the auditing profession in Egypt. The law is deemed outdated in most practitioners' point of view since it was enacted a long time ago (Wahdan, Spronck, Ali, Vaassen, & van den Herik, 2005). Currently, a proposed law of the auditing profession is to be presented to the Egyptian parliament.

The institutional structure of the audit profession in Egypt constitutes diverse key players. Three main bodies are concerned with the profession, The Ministry of Finance, the Egyptian Society of Accountants and Auditors (ESAA), which has a specific certification system for external auditors, and the commercials syndicate (branch of accounting and auditing practitioners). The Egyptian Society of Accountants and Auditors (ESAA) was established by virtue of a royal decree in 1946, it plays a central role in the accounting and auditing profession in Egypt. It is Egypt's representative in the International Federation of Accountants. Ministry of finance also maintained two registers for auditors, Schedule (A), represents that under-training auditors registered for three years during which the trainee receives his/her training at one of the accredited audit firms, and upon evidencing receiving the

training for the above mentioned period, the auditor's name shall then be transferred to Schedule (B) and becomes an external auditor; however, he/she shall not be authorised to audit public companies unless after the lapse of additional five consecutive years. Despite this, the lack of professional qualification exams and lack of monitoring the training of external auditors, some supervisory authorities made special registers for auditors who are authorised to provided external audit services for organisations that fall under their supervision; an example of which are the Central Bank of Egypt, the Egyptian financial supervisory authority that monitor the capital markets.

Egyptian external auditors, when facing ethical issues, in addition to their firms' code of ethics, if it exists, and their individual system, may consider several professional codes of ethics. Firstly, is the accounting and auditing professional constitution that was developed in 1958 by the Egyptian Accountants and Auditors Syndicate. This constitution comprises four chapters that discuss the ethics violations related to fraud, negligence and client's confidentiality.

Later, in 1972, the branch of audit professionals of the Egyptian commercials syndicate has replaced the Egyptian accountants and auditors' syndicate when the Law No. 40 of 1972 was enacted. To reflect the political, social and economical changes that occurred after the professional constitution was issued in 1958, the branch has developed a professional code of ethics, which constitutes 16 general ethical rulings that tackles ethical requirements and violations including independence, and client confidentiality, among others.

In 1993, the Egyptian Institute of Accountants and Auditors (EIAA) realised that these codes of ethics are outdated and that Egyptian audit practitioners need to follow a modern code of ethics in line with IFAC code of ethics for professional accountants. EIAA has initiated a project to prepare a professional code of ethics that reflect the modern professional developments. Based on the ethics code of the American Institute of Certified Public Accountants and IFAC Code of ethics, EIAA has developed a code of ethics that constitute two parts, general principles, and detailed guidelines. General principles included general ethical rulings concerning conflicts of interest and auditor independence, among others.

In 2003, the auditing professionals branch has prepared and issued a professional code of ethics aimed at promulgating ethical standards for professional accountancy. Six general ethical principles were discussed in this code including, integrity, objectivity, due diligence, confidentiality, among others. The most recent code of ethics was issued in May 2007. The Egyptian capital market authority has prepared and issued a professional code of ethics with which auditors of listed companies should comply.

#### **1.7 Research Theoretical Perspective**

The current study conceptual framework is based on several reason-based EDM models and theories. To develop a foundational framework for conceptualising the EDM process, Rest (1986) model of EDM provide a widely used theoretical foundation for the majority of EDM studies within the external audit context in particular (Jones et al., 2003; Lampe & Finn, 1992), and the wider business ethics area in general (Craft, 2013; Lehnert et al., 2015). According to Rest (1986), the EDM process is composed of four basic subsequent stages: a) ethical recognition; b) ethical judgment; c) ethical intention; and d) ethical action/behaviour. Those stages serve as dependent variables for the current study theoretical framework. Due to difficulty and biases associated with measuring the ethical behaviour, this stage is beyond the scope of the current study. Derived from Rest's model of EDM process, several theorists (e.g., Hunt & Vitell, 1986; Jones, 1991; Trevino, 1986) incorporated a wide range of individual, organisational, and issue-specific variables as predictors for EDM stages.

EDM process has been presented in the extant literature as individual-level phenomenon (Pimentel, Kuntz, & Elenkov, 2010). Theoretical and empirical EDM literature has commonly referred to and examined a broad set of individual variables in relation to EDM stages (see for most recent reviews: Craft, 2013; Lehnert et al., 2015). This study examines a relatively wide range of personal variables as associated to the EDM stages; the research model includes eight individual-level variables, they are; gender, age, educational level, job position, professional certification, work

experience, personal moral philosophy, and professional commitment.

Gender socialisation theory (Gilligan, 1977, 1982) posits that males and females bring different values to the workplace, gender differences as related to EDM stages was examined in the current study. Additionally, Kohlberg's (1981) theory of moral development provides a framework that suggests a positive relationship between age, work experience, educational level and an individual's level of moral development. The association of these variables with EDM stages has been investigated in the current study.

Since auditors who held professional certifications are likely to receive more ethics trainings than uncertified auditors, and experienced socialisation processes that emphasise the ethical responsibilities of the profession (Shafer & Wang, 2011), it is more likely to hypothesise a positive association between auditor's certification status and his/her EDM abilities. Thus, the theoretical framework of this study includes professional certification as independent variable associated with EDM stages. Additionally, Hunt and Vitell (1986, 2006) theory of marketing ethics indicates the role of personal moral beliefs in EDM process. Ethics position theory (Forsyth, 1980; Schlenker & Forsyth, 1977) provides two-dimensional conceptualisation of personal moral philosophy (Idealism & relativism), which was adopted to examine the influence of personal moral beliefs in relation to EDM stages.

This study also investigates the influence of professional commitment (PC) on EDM stages. The degree to which an individual is committed to his/her profession's value system would also affect the EDM process, Hunt and Vitell (1986, 2006), in their general theory of ethics urged business ethics researchers to explore the extent to which these values affect EDM. In this study, two components of PC, namely affective and normative dimensions are examined in relation to EDM stages.

In addition to the eight personal variables examined, three organisational variables are also included in the research framework, namely code of ethics, firm size, and ethical climate. EDM models (Ferrell & Gresham, 1985; Hunt & Vitell, 2006) rooted in marketing ethics maintained that the existence of a well-established code of ethics (professional and/or organisational) would have an impact on individuals' EDM. Empirically, earlier ethics research has generally suggested that the presence of code of ethics is positively related to EDM stages (Craft, 2013; O'Fallon & Butterfield, 2005). The current study examined the presence of organisational code of ethics as associated with EDM stages. Regarding organisational size association with EDM abilities, mixed findings were reported in EDM literature, calling for further research (Craft, 2013; Ford & Richardson, 1994; O'Fallon & Butterfield, 2005), recent studies generally suggest that size of the organisation is positively associated with EDM (e.g., Doyle, Frecknall-Hughes, & Summers, 2014; Sweeney et al., 2010). Firm size has been included in the current research framework.

In their theory of organisational ethical climate, Victor and Cullen (1987, 1988) maintained that employees' ethical behaviours could be partly explained by the prevailing ethical values of the organisation they work for. Through formal and informal socialisation, employees learn how to behave when confronted with ethical issues (Victor & Cullen, 1987). In the external audit context, a relatively little emphasis has been given to the influence of ethical work climates on auditors' ethical decisions (e.g., Shafer, 2008). A multi-dimensional construct of organisational ethical climate is included as independent variable in this study framework.

Finally, Jones (1991) synthesised previous EDM models (Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Trevino, 1986) and questioned the implicit assumption these models adapted that individuals will react similarly regardless the type and severity of the ethical issue they encounter. He maintained that ethical/unethical decisions are issue-contingent, he further criticised previous EDM models for failure to consider the characteristics of the ethical issue itself and introduced his issue-contingent EDM model including a new set of measurable characteristics called moral intensity and argued that issue-specific variables influence every stage of EDM process. The investigation of the six-dimensional construct of moral intensity as conceptualised by Jones (1991) in relation to external auditors' EDM stages is considered relevant in the current study. In summary, this study of external auditors' EDM proposed and examined a conceptual framework that incorporates the influences of eight personal variables (gender, age, education level, work experience, position level, certification status, personal moral philosophy, and professional commitment), three organisational variables (code of ethics, firm size, ethical climate) and six dimensions of moral intensity on EDM stages (magnitude of consequences, social consensus, probability of effect, temporal immediacy, concentration of effect, proximity).

#### **1.8 Research Methodology**

As per the study's aims and objectives, this study is looking at the EDM process of external auditors working in a developing audit environment, that is distinct in terms of cultural, economic, and legal contexts from developed ones, namely Egypt. This section is devoted to highlight the methodology employed within the current research.

Through taking a positivist stance, which has been adopted extensively by EDM literature, a theoretical model has been developed and testable hypotheses have been formulated. A survey approach was then performed to test the hypotheses. Sample from audit firms based in Egypt were used for the testing of the proposed hypotheses (n= 650). Data was collected by means of a self-administered questionnaire comprising four different context-based scenarios dealing with external audit ethical issues. It was administered to external auditors working for nineteen audit firms in Egypt that provides audit services for the majority of the 214 listed firms at the Egyptian stock exchange at time of the study. The survey usable response rate was above satisfactory level, it nearly 61% for the sample (393 usable responses). All external audit staff working for the Egyptian member firms of the 19 international firms based in Cairo, Giza, and Alexandria were selected to participate in the study.

While using single-item measure for EDM stages (dependent variables) developed by Singhapakdi, Vitell, and Kraft (1996) and Leitsch (2004) across four scenarios, the current study used several established scales for independent variables. The ethical climate questionnaire (ECQ) developed by Victor and Cullen (1987, 1988), and then refined and validated by Cullen, Victor, and Bronson (1993) was used to measure perceived ethical climate. Personal moral philosophy was measured using Forsyth

(1980) ethics position questionnaire. Professional commitment was measured by adapting scales developed by Meyer, Allen, and Smith (1993). Moral intensity dimensions were measured using multiple-items scales developed by Singhapakdi, Vitell, et al. (1996) and Sweeney, Pierce, and Arnold (2013). Finally, the study also measured social desirability response bias (SDRB), using Paulhus (1991) impression management scale.

While the original questionnaire was developed in English, and Arabic is the native language in Egypt, survey respondents received an Arabic translation version; a translation-back translation approach was adopted using two independent bilingual experts in Egypt to ensure maximum accuracy in translation. The questionnaire was administered after two audit academicians and two experienced audit practitioners were satisfied with the translation. Reliability and validity were considered and tested for, and appropriate controls and testing for social desirability bias as well as non-response bias were adopted. Descriptive statistics (means and standard deviations), data refinement techniques (Exploratory Factor Analysis), and parametric tests (e.g., independent sample t-test, One-way ANOVA, and Hierarchical multiple regression) were used to analyse the research data.

#### **1.9 Thesis Structure**

This thesis is organised into six chapters. *Chapter one* is the introductory chapter, provides the essential background of the study, discusses the ethical nature of the external audit practice, highlights the research motivation, and pinpoints the study aims and objectives. A brief overview of the research context (Egyptian audit environment) was also presented. Several methodological issues were briefly discussed as well.

Employing Rest (1986) four-stages model of EDM as an organising framework and a theoretical foundation for this study *Chapter two* presents a detailed review of the literature regarding variables associated with business professionals' EDM stages. These variables included personal variables as age, gender, position level, certification status, work experience, educational level, professional commitment, personal moral philosophy, variables related to the audit firm context (ethical climate,

code of ethics, and firm size), as well as the six dimensions of moral intensity construct (magnitude of consequences, social consensus, probability of effect, concentration of effect, proximity, and temporal immediacy)

While *Chapter three* entails the research philosophy adopted in the current study and details the methodology and the methods employed to collect and analyse the research data, *Chapter four* provides the findings and results drawn from analysing the collected research data. *Chapter five* puts forward a detailed discussion of the research results in the light of the relevant theoretical and empirical literature.

Implications of the study findings are presented in *Chapter six*, where significance and contributions of the research and recommendations to interested parties are discussed; strengths and limitations of the study are also highlighted. Implications are also presented in this chapter and a summary and conclusion of the study is also presented.

## **Chapter Two**

## Literature Review: Theoretical Perspective and Hypothesis Development

#### 2.1 Introduction

This study aims at determining personal, organisational, and issue-specific variables that influence external auditors' EDM stages. It is thus the aim of this chapter to present, discuss, analyse, and criticise extant literature related to those variables in relation to EDM stages in the business ethics literature in general.

This chapter is organised as follows: following this introduction, the second section provides the theoretical background of this study through presenting and discussing the theoretical approaches to EDM research in the business context. EDM stages serve as the theoretical foundation for the current study and they are presented and discussed in the third section. Empirical literature pertaining to the association of personal, organisational, and moral intensity variables with EDM stages is presented in the fourth section. In the fifth and sixth sections, gaps in the current literature are identified; the limitations of current literature of EDM, the theoretical framework, and hypotheses of the current study are put forward respectively. Finally, the chapter is summarised and concludes in the last section.

#### 2.2 Theoretical Approaches to Ethical Decision Making (EDM) Research

Many business ethics academics have struggled to define precisely what "EDM" means. Some definitions focused on ethical judgment as the unique aspect of EDM; for example, Shaub and Lawrence (1996, p. 128) defined the EDM process as "The decision processes employed by an individual to judge which course of action is ethically or morally appropriate in a particular situation". Likewise, Carlson, Kacmar, and Wadsworth (2009, p. 536) maintained that EDM is a "process by which individuals use their moral base to determine whether a certain issue is right or wrong". Other aspects of EDM has been also considered in some other definitions, the recognition aspect of the ethical dilemma has been regarded as an important aspect that initiates the EDM process, for example, Ponemon (1993b, p. 2) has described EDM "as mode of intelligence permitting the individual to perceive moral conflict and judge its resolution". EDM is not only about recognising ethical issues or judging the alternative actions, motivation to behave ethically and engaging in ethical behaviour must complement recognition and judgment so that an individual is said to behave ethically. In this study, EDM is conceptualised as an intellectual process in which an individual perceives that an ethical dilemma exists, judge its resolution, prioritises ethical/unethical values, and engages in ethical/ unethical action.

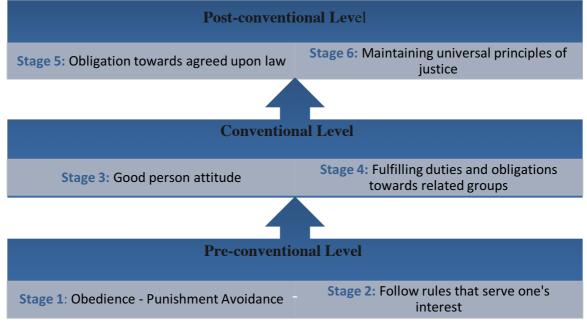
Societal interests in the issue of business ethics have urged many researchers to study this issue. In general, O'Fallon and Butterfield (2005) indicate that research in business ethics has been carried out using either one of two approaches: the normative approach and descriptive (behavioural) approach. The normative approach represents the philosophical treatment of morality where ideals are postulated (Ponemon, 1990). It is prescriptive in nature; it is focused on developing guidelines or rules to assist individuals to behave in an ethical way. The aim is to construct an argument concerning what individuals *should do* when confronting ethical dilemmas (Tenbrunsel & Smith-Crowe, 2008). There are two major types of normative ethical theory in moral philosophy: the deontological and the teleological theories (Hunt & Vitell, 1986). Unlike the normative approach, the descriptive approach is concerned with the psychology of EDM. It focuses on how individuals reason their ethical actions, what are the decision-models used, and what are the variables associated with such models. The objective is to study what individuals *do* when confronting ethical dilemmas (Tenbrunsel & Smith-Crowe, 2008), and how they come to do that.

Two major theoretical perspectives are commonly adopted in this area of research: behaviourism, and cognitive-developmental theory (Ponemon & Gabhart, 1993). Behavioural psychology as indicated by Ponemon and Gabhart (1993) account for ethical

actions as a function of stimuli only, and EDM is just a process by which an individual accumulates data in quantitative terms. On the other hand, cognitive-developmental theory looks at EDM as an intellectual process involving several variables that are associated with an individual's ethical capabilities. Some researchers theorised that an individual's ethical capabilities are developed through stages of moral cognition (e.g., Kohlberg, 1981), and it has been widely used to study the nature of EDM within diverse business contexts (Ponemon & Gabhart, 1993; Thorne & Saunders, 2002; Wright, Cullinan, & Bline, 1998).

The cognitive developmental approach is based on the work of the child psychologist Jean Piaget (1932/1966) who theorises that an individual's moral reasoning ability develops through a process of social interaction that develops in a series of cognitive stages. Based on his work, Kohlberg (1981) has examined and extended his propositions and developed his own well-known six-stages model of moral development.

Kohlberg's model of cognitive moral development is a well thought-out landmark in the study of moral development. This model suggests that an individual's ethical cognition develops through three levels and comprises six stages (see Figure 2.1). Level one, named pre-conventional, Kay (1982, p. 27) describes a person's judgment at the first level as "pre-moral, guided by obedience to authority in deference to its superior power and control of sanctions". Based on the morality perspective within this level, Ponemon and Gabhart (1993) pointed out that unethical behaviour could be expected from pre-conventional individuals if the risks related to getting caught are low. At level two, conventional level (stage three and four), an individual's judgment is based on his/her moral beliefs about his/her duties and obligations to the group. At Post-conventional level (stage five and six), the individual will judge acts as unethical if they harm others, where the emphasis is on the obligation towards law and universal moral principles. Ponemon (1990) states that these three levels represent three different views of the relationship between the self and the societal rules and expectations.



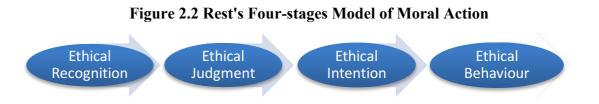
### Figure 2.1 Kohlberg's Model of Moral Development

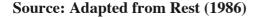
#### Source: Adapted from Kohlberg (1981)

Although Kohlberg's model of moral development has been commonly and fruitfully adopted in accounting and auditing studies (e.g., Ponemon, 1990, 1992a, 1992b; Ponemon & Gabhart, 1990; Shaub, 1994; Sweeney & Roberts, 1997; Warming-Rasmussen & Windsor, 2003) and has effectively provided valuable insights on external auditors' ethical judgment, it has been criticised for various reasons (Jones, 1991; Ponemon, 1990). The most noted criticism is that it focused on how individuals distinguish ethical and unethical acts, not on the intellectual processes used by people to judge moral actions (Armstrong, 1987; Ponemon, 1990). Rest (1968), therefore, developed his four-component model of the EDM process. He argued that ethical judgment is only a component of EDM process that comprises four components: ethical recognition, ethical judgment, ethical intention, and finally engaging in an ethical action (ethical behaviour) (see Figure 2.2).

Rest's (1979,1986) model of ethical action may be viewed as the most widely adopted EDM model in business ethics research (Jones et al., 2003; O'Fallon & Butterfield, 2005).

Rest suggests that an individual's ethical behaviour is a result of a four-stage cognitive process triggered by a presence of ethical dilemma. This process depicted in Figure 2.2, comprises 1) ethical recognition- at which an individual identifies the ethical dimension of a given situation; 2) ethical judgment- involves determining the right ethical actions to resolve confronting ethical dilemma; 3) ethical intention- involves prioritising ethical actions over other possible actions; 4) ethical behaviour/action- involves engaging in the ethical action. Several auditing researchers adopted this framework, while some examined only one stage (e.g., Karcher, 1996; Ponemon, 1990), others studied two stages (e.g., Cohen & Bennie, 2006; Gul et al., 2003; Thorne, 2000).

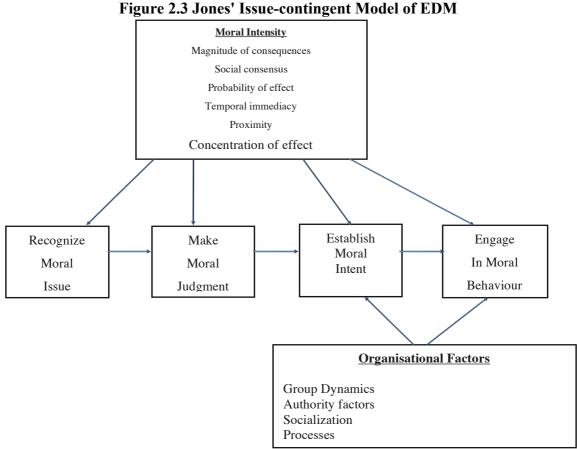




Furthermore, various EDM theorists developed Rest's four-steps conceptual model. Trevino (1986) offered a general theoretical model of EDM. Her person-situation interactionist model proposes that an individual's EDM process comprises three stages triggered by identification of an ethical dilemma, and proceeds to a moral cognitive judgment, and then engages in an ethical action. Although her model seems to be not directly related to Rest's model of ethical action, it is directly based on Kohlberg's model of cognitive moral development. She suggests that an individual's moral judgment process is moderated by several individual (ego strength, field dependence, locus of control), and situational (job context, organisational culture) variables. Introducing these variables to EDM research is the major contribution of her model. Several auditing researchers have found a significant relationship between these variables and external auditors' EDM components (e.g., Patterson, 2001; Tsui & Gul, 1996).

In contrast to the general model of EDM proposed by Trevino (1986), Hunt and Vitell (1986) offered a marketing context-based EDM model. Based on Rest's model of ethical action, they propose several variables as influencing EDM components, including environmental variables (cultural, industrial, organisational), as well as individual variables (personal experience, and ethical ideology). Introduction of personal moral philosophy to ethics research is considered the major contribution of this model. Several ethics studies have examined the impact of these variables on EDM components (e.g., Cohen, Pant, & Sharp, 1995b; Douglas, Davidson, & Schwartz, 2001; Shaub, Finn, & Munter, 1993; Sweeney, 1995).

Moreover, Jones (1991) argued that while Rest's (1968) four-components model comprises all the key elements of EDM process, previous EDM models have failed to recognise the influence of the characteristics of the ethical issue itself on EDM. He proposes an issue-contingent model (see Figure 2.3) to incorporate the characteristics of the moral issue (moral intensity dimensions). He argued that differences in individuals' EDM stages could be explained in part by the characteristics of the ethical issue itself. He conceptualised these characteristics into six dimensions of moral intensity: magnitude of consequences, social consensus, proximity, temporal immediacy, probability of effect, and concentration of effect. Several studies have examined these dimensions in relation to EDM components, with the majority investigating one or two dimensions (e.g., Karcher, 1996; Ketchand, Morris, & Shafer, 1999).



Source: Jones (1991, p. 379)

# 2.3 EDM Stages (Dependent Variables)

Rest's Model of Ethical Action is the commonly adopted model of ethical behaviour. Descriptive theoretical models that guide empirical business EDM research have been built on Rest (1986) model of ethical action (Groves, Vance, & Paik, 2008). It has been widely cited as a theoretical foundation for most empirical business ethics and EDM research (Craft, 2013; O'Fallon & Butterfield, 2005). Rest (1986) model of ethical action, and Jones (1991) issue-contingent model are generally considered to be the two most prevalent models that supports EDM research in the business context (Craft, 2013).

In general, the four stages (Recognition, Judgment, Intention, and Behaviour) conceptualised in Rest (1986) Model of EDM as discussed earlier are commonly viewed

as dependent variables. Descriptive EDM theoretical models as well as empirical EDM literature have suggested a wide range of variables that have been generally categorised into three groups (personal, organisational and issue-specific variables) as predictors for those stages (Morales-Sánchez & Cabello-Medina, 2013; Tenbrunsel & Smith-Crowe, 2008; Trevino, Weaver, & Reynolds, 2006). Therefore, drawing upon theoretical models of EDM literature discussed earlier, this study's conceptual framework treated those stages as outcome variables and a wide range of personal, organisational and moral intensity variables as independent variables. The four stages of EDM are discussed below.

## 2.3.1 Ethical Recognition

EDM process is activated by the presence of an ethical problem that needs to be resolved. Recognition of moral issues is an antecedent to morality judgment of the actions available (Carlson et al., 2009). If individuals are not morally aware of the issue, they might engage in "amoral decision making process" at which unintentional ethical or unethical behaviour may result (Tenbrunsel & Smith-Crowe, 2008). Ethical recognition stage has been a common element in almost all descriptive EDM theories and models developed in the marketing context (Ferrell & Gresham, 1985; Hunt & Vitell, 1986, 2006), general management context (Jones, 1991; Trevino, 1986), moral psychology (Rest, 1984; Rest, 1986). It generally presumed by the vast majority of EDM models that only through ethical recognition can an individual ultimately engage in ethical behaviour (Schwartz, 2016).

Butterfield, Treviño, and Weaver (2000, p. 982) defined ethical recognition as an "individual's recognition that his/her potential decision or action could impact the interests, welfare, or expectations of the self or others in a manner that may conflict with one or more ethical rules". Wright et al. (1998) portrays that ethical issue recognition is a process that comprises two components: individual's ethical sensitivity and moral intensity of the ethical issue itself.

Not all people recognise ethical issues when placed in situations having ethical implications (Hunt & Vitell, 2006). Several studies have introduced many variables to explain this variation, for example: some researchers have investigated whether gender could influence individual's ethical sensitivity (e.g., Ritter, 2006; Simga-Mugan, Daly, Onkal, & Kavut, 2005). Situational and contextual variables have been also theorised to influence ethical recognition (e.g., Jones, 1991).

Overall, little research has been done to examine the individual's ethical recognition. It has been argued that measurement of ethical recognition is notably problematic (Tenbrunsel & Smith-Crowe, 2008). O'Fallon and Butterfield (2005) offer a possible explanation for this extant limitation, they argued that the inherent nature of ethical recognition as it triggers the EDM process, makes it possible to assume that some researchers may view it as an independent variable that could influence subsequent EDM components, not a dependent variable that could be influenced by numerous variables as well as other EDM stages are influenced.

In conclusion, EDM descriptive models proposes that an individual's ability to recognise ethical issues is a function of an his/her moral capacity (personal characteristics of the ethical decision maker), and it can also be attributed to organisational ethical infrastructure (organisational variables) (Schwartz, 2016), as well as the characteristics of the ethical issue itself (Moral intensity dimensions) (Jones, 1991). Prior empirical EDM studies also suggests that several personal (e.g., gender, age educational level, personal moral philosophy) organisational (e.g., organisational size and ethical climate), and issue-specific variables (magnitude of consequences, probability of effect, concentration of effect, social consensus) is associated with individual's ability to recognise ethical issues embedded in situations (Craft, 2013; Lehnert et al., 2015; O'Fallon & Butterfield, 2005). In general, business ethics researchers have called for more research on this stage to identify personal and situational antecedents of ethical recognition (Craft, 2013; Lehnert et al., 2015; O'Fallon & Butterfield, 2005).

#### 2.3.2 Ethical Judgment

The second component of Rest's model of EDM is ethical judgment. It is central to the EDM process as it focuses on the evaluation of the extent to which an action is right or wrong (Mudrack & Mason, 2013). Ethical judgment together with the ethical intention might be referred to as the actual EDM process (Schwartz, 2016). At this stage, individuals judge which line of action is morally justifiable and then decide how the ethical issue ought to be resolved. The majority of prior research on EDM process has examined the ethical judgment component. It occupies a major role in diverse EDM models (Hunt & Vitell, 1986, 2006; Jones, 1991; Rest, 1986; Trevino, 1986).

According to Rest's four-component model, judging moral issues is a psychological process through which an individual distinguish which course of action that is morally right and which is morally wrong given a particular situation (Rest, 1986). Likewise, Trevino (1986, p. 604) defines moral judgment as "cognitive process in which an individual determines which courses of action are morally right or wrong". Ethical judgment occurs when an individual believes that a particular course of action is the most ethical alternative (Hunt & Vitell, 1986). It is the determination of the ethically appropriate course of action among the diverse alternative courses of action available for the decision maker (Schwartz, 2016). All these definitions together imply several key points that characterise ethical judgment: firstly, it is a cognitive process that requires cognitive skills on the part of the ethical decision maker. Secondly, it is a comparative judgment process that involves comparison of available alternatives to determine the most ethically option, and finally, it could vary in intensity and individuals could vary in their degree to which they believe a specific course of action is ethical or unethical. In general, once an ethical dilemma has been recognised, individuals will start to consider possible actions to be followed to resolve the given dilemma, and this is the business of ethical judgment component.

Sparks and Pan (2010) maintained that ethical judgments are by nature complex and multidimensional. The objective of this stage is to label every course of action, regardless of any self-interest (Morales-Sánchez & Cabello-Medina, 2013). In doing so, an individual may use his/her internalised ethical frameworks to weight alternatives and determine the ethical course of action (Schminke, Arnaud, & Kuenzi, 2007). In their theory of marketing ethics, Hunt and Vitell (1986, 2006) maintained that ethical judgment involves two processes of evaluation, deontological and teleological evaluations. Several theoretical models propose a diverse antecedents of ethical judgment, including personal variables such as age, educational level (Kohlberg, 1981), gender (Roxas & Stoneback, 2004), experience, deontological and teleological evaluations (Hunt & Vitell, 1986), and organisational variables, such as ethical climate (Victor & Cullen, 1988), as well as the characteristics of the ethical issue itself (Jones, 1991).

Empirically, ethical judgment has garnered considerable attention in the EDM literature. While O'Fallon and Butterfield (2005), in their review of EDM research, reported 185 out of 384 findings regarding ethical judgment, Craft (2013), in a more recent review, reported 112 out of 357 findings related to judgment stage of EDM. Also Bampton and Cowton (2013), in their review of accounting ethics research in particular, concluded that the majority was related to the ethical judgment component.

Literature relevant to ethical judgment has been largely based on Kohlberg (1981) theory of moral development. Thus, several ethical judgment researchers have largely used moral development measures, such as Moral Judgment Interview (MJI) and Defining Issues Test (DIT) (Trevino et al., 2006). Although these models have contributed significantly to the ethical judgment literature, the extensive use of these measures to operationalise ethical judgment has created considerable barriers with identifying appropriate literature pertaining to ethical judgment. Mudrack and Mason (2013) criticises ethical judgment literature for being largely focused on investigating moral reasoning rather than ethical judgment. They argued that while ethical judgment focused

on defining the appropriateness of moral choices, moral development is looking at the rationale behind such moral choices.

In general, prior research has demonstrated that judgment, which individuals make regarding ethical issues, is influenced by multiple personal, organisational, and issuespecific variables (Mudrack & Mason, 2013; Pan & Sparks, 2012; Sparks & Pan, 2010).

# 2.3.3 Ethical Intention

Intuitively, after an individual judged which act is ethically right (ethical judgment), he/she must then decide what to do. At this stage, an individual formulates a behavioural intention to behave ethically/unethically based on what he/she judged as the ethical/unethical choice of action. Establishing behavioural intention is the immediate antecedent of engaging in behaviour/action, which is assumed to be under volitional control (Buchan, 2005). Martinov-Bennie and Mladenovic (2015, p. 191) have defined ethical intention as prioritisation of ethical values higher than other values (i.e. agreeing to perform chosen course of action). Ethical intention represents the subjective probability that a certain behavioural action will be carried out (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Operationally, behavioural intention is the individual's expression of the likelihood that he/she will perform a given action (Barnett & Valentine, 2004). The stronger the intention to perform a certain behaviour, the greater the probability to carry out this behavior. Behavioural intentions, together with perceived behavioural control accounts for considerable variance in an individual's actual behaviour (Ajzen, 1991).

Not only moral values that individuals have, values other than moral ones such as selfinterest, may be in conflict with morality (Rest, 1986). Thus, ethical intention represents the degree to which individuals are committed to moral ideals, placing moral values over others and take the moral course of action (Rest, 1986). It denotes the extent to which an individual will adhere to moral values even when faced with pressures to act otherwise. At this stage, an individual will have to compare moral values against other values to establish ethical intentions. In establishing moral intent, an individual will have to consider several issues, including for example, social subjective norms (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), and moral intensity of the ethical issues that often heighten personal emotions and feelings (Jones, 1991).

Descriptive EDM models discussed earlier have emphasised the crucial role that ethical intention stage plays in the EDM process. While Trevino (1986) and Ferrell and Gresham (1985) have proposed a direct transition from ethical judgment to engaging in moral action, several EDM models (e.g., Hunt & Vitell, 1986; Jones, 1991; Rest, 1986) have explicitly postulated a stage that mediates ethical judgment and engaging in ethical behaviour where an individual establishes moral intent. Prior empirical studies have demonstrated the significant relationships between ethical judgment and ethical intention (e.g., Barnett & Valentine, 2004; Johari et al., 2017; Musbah et al., 2016; Nguyen & Biderman, 2008), as well as between ethical intention and ethical behaviour (e.g., Barnett, 2001; Johari et al., 2017; Marta et al., 2004; Nguyen & Biderman, 2008; Oumlil & Balloun, 2009). Wagner and Sanders (2001) conclude that an individual who judges an unethical act as unethical (low judgment) will report an intention not to behave unethically, and he/she will be unlikely to engage in unethical acts.

Ethical intention has been commonly viewed as the best proxy for an individual's ethical behaviour (Beekun, Stedham, Westerman, & Yamamura, 2010; Ruiz-Palomino & Martínez-Cañas, 2014), and as such, it has been a subject for extensive research (e.g., Buchan, 2005; Leonard, Cronan, & Kreie, 2004; Leonard, Riemenschneider, & Manly, 2017; Shafer, 2008; Sweeney et al., 2010; Sweeney et al., 2013). The Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and its extension, The Theory of Planned Behaviour (Ajzen, 1985, 1991) have provided the theoretical background of much research related to ethical intention (e.g., Buchan, 2005; Leonard et al., 2004). Stages of ethical intention and ethical behaviour have been the central factors in these frameworks (Ajzen, 1991).

Prior research suggests multiple variables as influencing intentions to behave ethically including, personal (e.g., Musbah et al., 2016; Shafer, Simmons, & Yip, 2016), organisational variables (e.g., Shafer, 2015) and the characteristics of the ethical issue itself (e.g., Valentine & Bateman, 2011; Vitell & Patwardhan, 2008; Yang & Wu, 2009).

This study is concerned with examining a broad range of variables in relation to external auditors' intentions to behave ethically in moral situations. Although recent research has pointed out to the intention-behaviour gap (Sheeran & Webb, 2016), and it has been argued that ethical behaviour/action is usually, but not always, consistent with established intentions (Singh et al., 2007), examining auditors' behavioural intentions regarding ethical issues is considered appropriate and practical rather than examining the actual ethical behaviour that entails several risks and subject to various limitations and research biases.

#### 2.3.4 Ethical Behaviour

The culmination of the EDM process is the ethical action/behaviour; it is the final stage of EDM process where an individual act according to his/her intention established in the ethical intention stage. Engaging in ethical behaviour might be considered synonymous with moral action which Rest (1986) defined as having the "sufficient perseverance, ego strength, and implementation skills to be able to follow through on his/her intention to behave morally, to withstand fatigue and flagging will, and to overcome obstacles" (Rest, 1986, p. 4). According to Jones (1991), ethical behaviour must be both legally and morally acceptable to the larger community. As a result of the complex and multiple stages of EDM (Rest, 1986), ethical behaviour entails implementing the course of action chosen through ethical intention (Martinov-Bennie & Mladenovic, 2015), and it can be of different degrees of ethicality in terms of the rightness or wrongness of the action taken (Schwartz, 2016).

According to Ajzen (1991) theory of planned behaviour, an individual's ethical action/behaviour is not dependent solely on his/her intentions regarding the proper action to be carried out, he/she must possess an ability (behavioural control) for behavioural achievement. In other words, intention to engage in ethical action must interact with ability for an ethical act to take place. Perceived behavioural control together with behavioural intention acts as predictors for a person's behaviour or action. In this regard, they maintained that resources and opportunities available for an individual must to some extent determine the probability that a given behaviour or action will be carried out.

Because of the inherent difficulty to measure and observe actual ethical/unethical behaviour of individuals, the limited amount of research regarding this stage is not surprising; examining ethical behaviour is commonly cited in the business ethical literature as an area that needs further research. In their review of EDM literature, O'Fallon and Butterfield (2005) reported only 85 out 384 findings regarding this stage, and a decline in volume (37 findings out of 375) has recently been observed through recent review conducted by Craft (2013). More recently, there were only 37 findings reported in Lehnert et al. (2015) review. Regarding the external auditors' EDM literature specifically, Jones et al. (2003) reported only two studies related to the ethical behaviour component (Falk, Lynn, Mestelman, & Shehata, 1999; Ponemon, 1992a). Taken together, these two attempts suggest the impact of contextual variables, including time pressure, peer pressure, and financial exposure on auditors' unethical actions.

Although EDM literature in the business context in general, and audit context in particular, needs more empirical work regarding ethical behaviour stage, it is out of the current study's scope, examining ethical behaviour is not an easy task, the time and funds needed to investigate participants ethical behaviour hinder the researcher's ability to examine this stage in the current study. Despite this, the current study examined the other three stages of EDM process rather than one or two stages focused upon in the majority of prior EDM literature.

# 2.4 Variables Associated with EDM Stages (Independent Variables)

In the business ethics literature, a wide range of personal, organisational, and ethical issue-related variables were examined in relation to stages of EDM process (Craft, 2013; O'Fallon & Butterfield, 2005). Among a wide range of variables, the current study aims at identifying the impact of only eight personal variables, they are: age, gender, professional experience, position level, educational level, certification status, personal moral philosophy, and affective and normative dimensions of professional commitment, three organisational variables, they are, ethical climate, organisational (firm) size, and code of ethics, and the six-dimensional construct of moral intensity on external auditors' first three stages of EDM process (Recognition, Judgment, and Intention). Thus, the theoretical and empirical review of only these variables will be discussed and analysed.

The choice of the variables examined in this study specifically in relation to external auditors' EDM stages in Egypt, rather than others, is not without justification. Firstly, examination of some personal variables, such as gender, age, educational level, and position level and personal moral philosophy was among the common themes called for future research in the published work reviewed by Craft (2013). Because of the easiness to collect from participants, as well as their potential theoretical impact on EDM, these personal variables (such as: age, gender, professional experience, educational level, personal moral philosophy, position level), and organisational variables (such as organisational size), are commonly included variables in the research model for many EDM studies (Craft, 2013). However, little research has investigated these variables in the external audit ethics context specifically (e.g., Pierce & Sweeney, 2010; Sweeney et al., 2010). Thus, this study will attempt to contribute to external audit ethics research by adding new evidence concerning these variables.

Secondly, in general, Craft (2013) identified a need for more research on organisational variables and called for more studies on organisational factors and the role they play in EDM process. Although these organisational variables (such as: ethical climate, code of ethics) have been examined in the broader business EDM research, very little research

has tested those variables in relation to external auditors' EDM process (e.g., Shafer, 2008), and scant attention has been given to examining these variables in developing countries (e.g., Musbah et al., 2016; Shafer, 2008), such as Egypt. Observed influence of national culture differences on perceived ethical climates in audit firms (see for example: Parboteeah et al., 2005), as well as the underdevelopment of organisational and professional code of ethics in developing countries in general (Musbah et al., 2016), suggests the need to examine these variables in developing countries such as Egypt.

Thirdly, some variables such as moral intensity and professional commitment have received little attention in the EDM literature. Since the construct of moral intensity has been introduced in 1991, business ethics researchers have paid considerable attention to its impact on EDM process with the majority examining magnitude of consequences and social consensus dimensions (Craft, 2013; O'Fallon & Butterfield, 2005). However, relatively little consideration has been given to investigating the other four dimensions of in the wider business ethics literature (Craft, 2013; O'Fallon & Butterfield, 2005). Similarly, very little research has been conducted to examine the effect of professional commitment on accountants' ethical attitudes and behaviour (Hall, Smith, & Smith, 2005; Shafer et al., 2016). Thus, findings concerning these variables in relation to EDM stages will add new empirical evidence to the business ethics literature.

Fourthly, although a wider array of variables could be examined in the current study (e.g., personal values), constraints regarding the data that could be collected from external auditors as well as the limited time and fund available for the researcher, hinder his ability to examine all variables that are likely to be associated with EDM stages. Finally, examining some other variables (such as: nationality, ethnicity, religion) will not be doable given the relative national, ethnic, and religious homogeneity of external auditors working in Egypt.

Several reviews have been conducted to synthesise and analyse the extant literature of EDM research in business. Numerous extensive reviews that covered both the qualitative

(e.g., Cowton & Downs, 2015; Lehnert, Craft, Singh, & Park, 2016) as well as the quantitative (e.g., Lehnert et al., 2015; Trevino et al., 2006) empirical EDM research in the business context have been published. Although these prior reviews provide valuable findings, only four reviews (Craft, 2013; Ford & Richardson, 1994; Loe, Ferrell, & Mansfield, 2000; O'Fallon & Butterfield, 2005) of EDM research, in addition to the current study review were used to inform the empirical background of the study.

These four reviews collectively provide comprehensive results and offer a clear picture regarding the state of EDM literature in the business context. They covered empirical EDM studies in business for the years 1978-2011. They collectively comprise more than 400 different empirical studies on the topic published in prominent business ethics journals. An early review conducted by Ford and Richardson (1994) reviewed 62 studies published between 1978 and 1994. Later, Loe et al. (2000) review reported the findings of 124 studies that were conducted between 1994 and 1996 and O'Fallon and Butterfield (2005) reviewed 174 studies that reported 384 individual findings covering the period from 1996 to 2003, and finally Craft (2013) has extended prior reviews and synthesised, analysed, and reported 357 findings reported by 84 empirical EDM studies published between 2004 and 2011. These reviews offered valuable findings concerning the EDM literature. Thus, building on related results reported in these reviews was considered more beneficial than reviewing empirical studies included in these reviews again.

To better examine trends in EDM research and variables associated with it, these reviews were updated in the current study covering the period from 2011 to 2017. For the current study review (see Table 2.4), selecting studies for inclusion was subject to several criteria. Firstly, articles selected were published in academic journals after 2011 to 2017. 2011 was selected as the first year of inclusion since this was that last year covered by the most recent review (Craft, 2013). However, despite the comprehensiveness of the most recent review, several relevant papers have been missed from the time period under review that the current study literature search was able to locate. Surprisingly, about half (30 studies) were published before 2011, they have been either totally missed by previous

reviews, and/or they have been reviewed but unfortunately missed several relevant findings reported. While Shafer (2008) and Yang and Wu (2009) studies have been completely and totally missed, only some of the findings (Age, gender) reported by Pierce and Sweeney (2010) have been missed in Craft (2013) review. Surprisingly, although firm size effects on ethical intention reported by Sweeney et al. (2010) have been reviewed and reported, its association with ethical judgment has been missed in Craft (2013) most recent review.

Secondly, selected articles pertained to EDM literature in only the business discipline. Articles examined EDM in non-business contexts have been excluded. Thirdly, only findings related to the direct influence of examined variables on EDM stages are reported in the current study review. Moderation and mediation effects found within these studies are not reported here. Fourthly, studies were included if they are related to only the first three stages of Rest's model. Fifthly, only studies that examined personal variables (age, gender, experience, educational level, position level, professional certification, professional commitment, and personal moral philosophy), organisational variables (ethical climate, code of ethics, organisational size) and the six-dimensional construct of moral intensity (magnitude of consequences, social consensus, probability of effect, concentration of effect, temporal immediacy, proximity), that are examined in the current study, were included in the current study review.

Generally speaking, considerable attention has been given to ensure that all relevant papers have been included in the current study review so that a complete picture of the current state of EDM literature can be obtained. The current study's review of EDM literature result in **62** articles reported **201** findings (see Table 2.3 and Table 2.4).

### 2.4.1 Personal Variables and EDM Stages

At its very core, EDM is a personal process (Lehnert et al., 2016). An ethical behaviour may be contingent on the individual encountering the ethical issue. Different individuals may act in different ways regarding the same ethical dilemma (Schwartz, 2016). Personal

variables entail "aspects of EDM uniquely associated with an individual decision maker" (Craft, 2013, p. 222). They entail all factors related to the decision maker as an individual (e.g., personality and personal values) rather than factors related to the decision context or the decision alternatives. These factors include those variables linked to the circumstances related to an individual's birth (Demographics: e.g., age, gender, religion, nationality) as well as those psychological variables that are related to human development and socialisation processes (e.g., cultural values, moral development, professional commitment, personal moral philosophy, educational and employment levels) (Ford & Richardson, 1994).

Within the business ethics literature, EDM has been commonly represented as an individual-level phenomenon (Pimentel et al., 2010). This urged many researchers to theorise and empirically examine a broad set of personal variables as related to EDM process. Within the business ethics literature, several personal variables have been examined extensively in relation to EDM process (Craft, 2013; Ford & Richardson, 1994; Loe et al., 2000; O'Fallon & Butterfield, 2005), including gender, for example, as the most researched variable (Craft, 2013), age, and education, among many others. The numbers of individual studies that have examined personal variables in relation to EDM have significantly risen across decades. While Ford and Richardson (1994) reported 59 findings related to personal factors, 122 findings were reported by Loe et al. (2000). Studies reported findings on the effect of personal factors on EDM stages surged from 122 to 270 between Loe et al. (2000) and O'Fallon and Butterfield (2005). Nearly 70% of the studies reviewed by O'Fallon and Butterfield (2005) have addressed personal variables in relation to EDM stages. The review that was recently published by Craft (2013) has reported more than 270 findings regarding personal factors in relation to EDM stages, this comprises 77% of overall findings reported (Craft, 2013).

Although a significant stream of research has investigated a wide range of personal variables as related to EDM, reported findings are inconclusive. Within the current investigation, among a wide variety of personal variables, only eight personal factors

were investigated as related to external auditors' EDM stages. These variables include: age, gender, educational level, position level, professional certification, work experience, personal moral philosophy, and professional commitment. The theoretical foundations and the empirical background related to those variables are discussed next.

# 2.4.1.1 Age

If moral reasoning is likely to develop as part of the individual's cognitive development as posited by Kohlberg's theory (Kohlberg, 1981), thus, it is likely to predict that an individual's moral reasoning is associated with personal factors associated with his/her cognitive development in general, including age as one of the influential variables (Shaub, 1994). Kohlberg maintained that individuals continue to develop up among different moral development stages, as they grow older. His propositions suggest that age positively affects an individual's moral development. His arguments are not to suggest that individuals progress through stages of moral development with similar pacing and pattern, that is an increase with age will not similarly associated with higher levels of moral development among different individuals, yet age is significant and necessary for developing moral reasoning. Age in relation to individuals' ethical choices was commonly hypothesised as positive.

Empirically, within the business ethics literature, most investigations linking age to ethics have indicated an increase in ethicality with age; however, mixed findings have been reported by other studies (Craft, 2013; O'Fallon & Butterfield, 2005). In their review, Ford and Richardson (1994), in contrast with theoretical foundations, have reported only two out of eight studies reviewed that found age is positively related to EDM (e.g., Ruegger & King, 1992; Serwinek, 1992), while only one reported negative relationship (Browning & Zabriskie, 1983), with the remaining five studies reported no or non-significant relationship (e.g., Izraeli, 1988; Kidwell, Stevens, & Bethke, 1987). After elimination of the eight studies reviewed by Ford and Richardson (1994), Loe et al. (2000) have added another eight new findings that appear inconsistent, with the majority (5 studies) revealed that older respondents tend to be more ethical than their younger

counterparts (e.g., Brady & Wheeler, 1996; Kelley, Ferrell, & Skinner, 1990; Muncy & Vitell, 1992). No significant findings were reported in the remaining three studies (e.g., Kohut & Corriher, 1994; Tyson, 1992). Fourteen additional findings were reported by O'Fallon and Butterfield (2005), with half (seven findings) of these findings indicated a significant relationship between age and EDM stages, six showed few significant or nonsignificant relationship (e.g., Shafer, Morris, & Ketchand, 2001; Singhapakdi, Karande, Rao, & Vitell, 2001), with the remaining finding indicated a mixed pattern. Findings reported by O'Fallon and Butterfield (2005) have questioned suggestions reported by earlier reviews regarding the positive influence of age on EDM by reporting five findings (out of 14 findings) that indicated a negative relationship (e.g., Latif, 2000; Roozen, De Pelsmacker, & Bostyn, 2001). However, more recent research has shown, to some extent, consistent direction that EDM abilities increase as age increases; Craft (2013) has provided nine additional studies that attempted to uncover the impact of age on EDM stages. Significant positive relationship has been reported in six studies (e.g., Chan & Leung, 2006; Krambia-Kapardis & Zopiatis, 2008), with the remaining indicated no significant relationship.

The review of this study, as presented in Table 2.4, has added thirty-four additional new findings. Fourteen findings revealed a significant positive relationships or influences (e.g., Bateman & Valentine, 2010; Conroy, Emerson, & Pons, 2010; Shafer et al., 2016; Sidani et al., 2009; Sweeney et al., 2010; Walker, Smither, & DeBode, 2012; Yamamura & Stedham, 2011), whereas the remainder have provided no or few significant relationship of age with EDM stages (e.g., Guffey & McCartney, 2008; Husser, Andre, & Lespinet-Najib, 2017; Kuntz, Kuntz, Elenkov, & Nabirukhina, 2013; McMahon & Harvey, 2007; Musbah et al., 2016; Pierce & Sweeney, 2010; Sweeney et al., 2010).

Based on the current and previous reviews, research has not yet yield a clear understanding of the association of age with EDM, in total, seventy-three studies have investigated the linkage between age and EDM, with nearly half (34 out of 73 studies) suggested a significant influence of age on EDM stages, with the remainder indicating no or few significant relationships. With the exception of the six studies that reported a negative influence of age on EDM (e.g., Sweeney et al., 2010), studies that found significant differences on EDM as based on age of the respondent have concluded that individuals become more ethical as age increases. Age influence on external auditor's ethical recognition, judgment, and intention stages is to be tested in the current study. Based on the preceding discussion, this study hypothesise that age is associated positively with EDM stages.

#### 2.4.1.2 Gender

A great deal of research has been carried out into the question of gender differences in EDM in organisations and reported inconsistent findings. While many findings have been indicated that females are potentially more ethical, or at least showed stronger intention to be ethical, than males (e.g., Ameen, Guffey, & McMillan, 1996; Bobek et al., 2015; Chen, 2014b; Cohen et al., 2001; Dalton & Ortegren, 2011; Nguyen, Basuray, Smith, Kopka, & McCulloh, 2008; Ross & Robertson, 2003; Simga-Mugan et al., 2005; Sweeney et al., 2010), not many studies have found that males exhibit more ethical choices than females (e.g., Marques & Azevedo-Pereira, 2009; Musbah et al., 2016; Roxas & Stoneback, 2004), and gender was found to be of no association with EDM in some other studies (e.g., Abdolmohammadi et al., 2003; Chan & Leung, 2006; Forte, 2004; Shafer et al., 2001; Sweeney & Costello, 2009).

Gender is considered an under-researched area in the accounting context (Dalton, Cohen, Harp, & McMillan, 2014) generally, and in accounting ethics in particular (Sweeney et al., 2010). Gaining a better understanding of gender differences in individuals' EDM is likely to remain a topic of crucial interest to researchers. More than ever before, women are joining the business and accounting workforce and have reached higher-level managerial positions (Chen, 2014b; Ibrahim & Angelidis, 2009; Nguyen et al., 2008; Radtke, 2000; Roxas & Stoneback, 2004). In the auditing context specifically, along with increasing number of female accounting students (Roxas & Stoneback, 2004), advances in the percentage of female managers in public accounting firms have been highlighted

(AICPA, 2008). The mixed findings reported by prior ethics gender research and the increasing presence of women in the accounting and auditing professions command a greater need for understanding the relationship of gender with audit professionals' EDM.

Several ways have been used by researchers to theorise differences in ethical decisions as related to gender. To hypothesise or explain gender differences in ethical practices, business ethics researchers have frequently cited two common approaches; the gender-socialisation approach, and the structural approach (Betz, O'Connell, & Shepard, 1989).

The gender-socialisation approach maintains that men and women have different perspectives and orientations regarding their ethical judgments. Gilligan (1977, 1982) criticises Kohlberg (1981) theory of cognitive moral development for being a malebiased theory and asserts that men and women have different moral orientations regarding ethical issues; while women judges the ethicality of behaviours based on a care orientation that focuses on the responsibility of maintaining caring and long-term-relationship, men judges ethical issues based on a justice orientation that centers on the concepts of fairness, rights, and obligations. These differences in moral orientation are likely to be reflected on differences in individuals' judgments regarding ethical issues. Females will exhibit more ethical choices in cases where their care orientation was invited (Bampton & Maclagan, 2009).

Similarly, Gender role theory (Eagly, 1987) offers another explanation; it posits that people engage in activities that are consistent with their culturally defined gender roles. Men and women are posited to be internalised with values related to their gender roles in the society. These internalisations are reflected on differences in work-related interests (Eagly, Karau, & Makhijani, 1995). On one hand, men are more interested in task completion and maintaining success. They tend to view work relationships as competitions that should be won (Roxas & Stoneback, 2004). Loo (2003) argued that men's focus on competitive success could lead them to engage in unethical behaviours to achieve desired outcomes. Thus, it is expected that men are more likely to break rules

(Betz et al., 1989). On the other hand, women are more interested in nurturing key relationships with others (Valentine, Godkin, Page, & Rittenburg, 2009), and maintaining a harmonious work place environment (Roxas & Stoneback, 2004). Thus, it is expected that women are less likely to break rules and engages in unethical practices.

In contrast, the structural approach emphasises the strength of organisational/ occupational environment in influencing individual behaviour. It challenges the notion adapted by Gender-socialisation/Gender-role theory and holds that work related situations and professional/ organisational environment are strong enough to overwhelm any potential gender differences (Tenbrunsel & Smith-Crowe, 2008). Rewards and costs offered by occupational roles will overcome gender differences influence developed by early socialisation (Ameen et al., 1996; Betz et al., 1989). Thus, it is expected that men and women will exhibit similar ethical priorities in a given occupational environment.

Empirically, prior studies have reported confused and often contradictory results. Ford and Richardson (1994) have reported inconsistent findings, half of the fourteen studies reviewed revealed that women are more likely to behave ethically than men (e.g., Beltramini, 1984; Ferrell & Skinner, 1988), while the remaining seven do not suggest any significant gender differences in ethical decisions (e.g., Callan, 1992; Hegarty & Sims, 1978).

In their review, Loe et al. (2000) have reported thirteen new studies. The majority has reported significant differences in EDM as based on gender (10 studies), specifically females are more ethical than males (e.g., Barnett & Karson, 1989; Kelley et al., 1990; Tyson, 1992), only three studies have reported no significant differences (e.g., Brady & Wheeler, 1996; Derry, 1989). They concluded that findings are mixed and inconclusive that the majority of the studies are either reporting no significant differences or females are more ethical than males.

A significant rise in the number of findings has been observed by O'Fallon and Butterfield (2005) who reported an additional forty findings related to the influence of gender on EDM stages with the greatest number of studies were related to ethical judgment (33 studies), the remaining studies were related to intention (4 studies), with the least examined dependent variable, ethical recognition (3 studies). While two studies reported no or few significant findings regarding gender effect on ethical recognition (e.g., Singhapakdi, Rao, & Vitell, 1996), only one study reported that female subjects were more ethically sensitive than males (Ameen et al., 1996). Of the 33 studies related to ethical judgment, only 13 studies have provided significant gender effect (e.g., Okleshen & Hoyt, 1996; Singhapakdi et al., 2001; Tse & Au, 1997), while the remaining 20 studies indicated no significant results (e.g., Abdolmohammadi et al., 2003; Weeks, Moore, McKinney, & Longenecker, 1999). Mixed results have also been reported concerning ethical intention, of the four studies, two studies have reported significant effect of gender (e.g., Cohen et al., 2001), the remaining have provided no significant association (e.g., Jones & Kavanagh, 1996). In total, gender has been reported as having few or no significant effect in 24 studies (e.g., Kracher, Chatterjee, & Lundquist, 2002; Razzaque & Hwee, 2002; Shafer et al., 2001), while females, at least under certain situations, found to be more ethical than males in 16 studies (e.g., Eynon, Hill, & Stevens, 1997; Singhapakdi, 1999; Tse & Au, 1997). They concluded that while mixed findings still reported, consistency has been observed in the majority of the studies that supports either the no differences notion, or females behave more ethically than males when differences are found.

The mixed results trend for the impact of gender on EDM continued in more recent studies. Twenty-one additional studies were reported in Craft (2013) review for gender influences on the first three EDM stages. 15 studies have reported significant differences, while no significant findings have been reported by the remaining six studies. Again, the majority of these were related to ethical judgment and intention stages (each reported in 8 studies) as dependent variable, with the least number of findings related to ethical recognition (5 studies). Regarding ethical recognition, three reported that females were

more ethically aware than males (Eweje & Brunton, 2010; Herington & Weaven, 2008; Krambia-Kapardis & Zopiatis, 2008), no significant relationship were reported in the remaining two studies (e.g., Chan & Leung, 2006). Concerning ethical judgment, while five studies have reported men as having lower levels of ethical judgment than women (e.g., Forte, 2004; Nguyen et al., 2008), Marques and Azevedo-Pereira (2009) reported men as more ethical than women. The remaining two studies have reported no significant differences in ethical judgment as based on gender (e.g., Zgheib, 2005). With regard to ethical intention, while two studies reported few or non-significant relationship of gender with ethical intention (e.g., Street & Street, 2006), the remaining six studies have reported that women tends to have more ethical intention than men (e.g., Guidice, Alder, & Phelan, 2009; Oumlil & Balloun, 2009; Valentine & Rittenburg, 2007).

The review of the current study, as presented in Table 2.4, has added fifty- two additional findings that appeared to be clearly inconsistent, while twenty-one suggests no or few significant differences in EDM as based on gender, twenty- nine findings indicates that females are more likely to make ethical choices than males, and somewhat surprisingly, two more findings, however, implies that males are more ethical than females (Musbah et al., 2016; Shafer & Wang, 2011).

Eight studies examined ethical recognition; no significant differences in ethical recognition as based on of gender were reported in three studies (e.g., Husser et al., 2017; Kuntz et al., 2013), the remaining five reported significant results (e.g, Ritter, 2006; Sidani et al., 2009; Simga-Mugan et al., 2005). Interestingly, of the significant results found, Male management accountants were significantly higher sensitive than females in recognising the ethical issues in two scenarios in one study (Musbah et al., 2016).

Ethical judgment has been reported in the majority of the studies (25 studies), females evidenced higher ethical judgment than males in thirteen studies (e.g., Bobek et al., 2015; Conroy et al., 2010; Shafer et al., 2016; Walker et al., 2012; Wang & Calvano, 2015), while no or few significant effects have been reported in the remaining twelve studies

(e.g, Clouse, Giacalone, Olsen, & Patelli, 2015; Doyle et al., 2014; Husser et al., 2017; Pierce & Sweeney, 2010; Yamamura & Stedham, 2011). Again, interestingly, of the significant results reported, Chinese male professional accountants were found to be more likely to judge earning management as unethical than females in one study (Shafer & Wang, 2011).

Sixteen studies have examined ethical intention as related to gender, ten revealed that women were significantly more ethical than men (e.g., Bateman & Valentine, 2010; Haines & Leonard, 2007b; Seshadri & Broekemier, 2009; Shafer, 2015; Shafer et al., 2016), while the remaining six reported no or few significant results (e.g., Bobek et al., 2015; Musbah et al., 2016; Shafer, 2008; Valentine & Barnett, 2007). Interestingly, although in a study of ethical sensitivity, Simga-Mugan et al. (2005) found that females were more ethically sensitive than males in all 16 scenarios employed. In a cross-cultural ethics study involves four countries, Curtis, Conover, and Chui (2012) maintained that gender differences in ethical intention is contextually and country dependent, females exhibit higher ethical intention in one scenario, but not in the other. Adding to this inconsistency, they found that the pattern of gender differences in one scenario differs across countries studied that while females show higher ethical intention in the whistleblowing scenario in U.S, the opposite exists in the other countries (Japan, Mexico, and China). Three more studies have examined gender influence on EDM, however; researchers have failed to mention which stages have been examined. In those three studies, gender was found to be significantly associated with EDM, with females exhibiting more ethical views than males (Chen, 2014b; Chen, Velasquez Tuliao, Cullen, & Chang, 2016; Dalton & Ortegren, 2011).

Overall, within the business ethics literature, to date, a significant number of empirical findings (140 findings) have been reported regarding the role of gender in EDM; this significant body of literature has continued to produce clearly mixed and often confusing results. Significant differences in EDM were reported in 79 studies, while the remaining 61 have reported no or few significant results. However, the findings could be divided

into two general themes. Firstly, gender and EDM are not related, and secondly, differences exist with females behave more ethically than males in the majority of the studies (76 findings). With the exception of the three findings reported for ethical judgment (e.g., Marques & Azevedo-Pereira, 2009; Shafer & Wang, 2011) and ethical recognition (Musbah et al., 2016) that found males to be more ethical than females, it could be concluded that when differences are found between males and females, females exhibit more ethical choices than males. Despite these relatively concluding results, recent research has questioned whether these gender differences in EDM exist because of female are more ethical than males or perhaps because females are more prone to the social desirability response bias that commonly exist in ethics research. It was found that gender differences in EDM are largely attenuated once social desirability was controlled for (Dalton & Ortegren, 2011). Relatively, little attention has been given to the role of gender in auditor's EDM with the majority failed to employ an appropriate measure of social desirability response bias. This relationship has been tested within the current study with respect to the first three stages of external auditor' EDM, and among different ethical scenarios to test the consistency of the results among different ethical contexts. An appropriate control and a measure of social desirability response bias have been also employed.

## 2.4.1.3 Educational Level

The theory of cognitive moral development, which was built by Kohlberg, suggested a positive relationship between an individual's educational level and his/her moral reasoning abilities (Kohlberg, 1981). It posits that individuals generally move from lower to higher stages of moral reasoning with increasing education. Thus, individuals with higher educational level are expected to exhibit higher ethical values and behaviours than individuals with lower educational levels when dealing with ethical issues (Rest & Thoma, 1985). Rest (1986) argued that an individual's moral judgment is likely to be developed in conjunction with advancement in general social development that an individual gain through formal education. His 10-year longitudinal study's findings portray education as the most significant predictor of individual's ethical judgment. In

their review and meta-analysis of ethical judgment literature, Pan and Sparks (2012) concluded that education may open minds and enhances individuals' ethical reasoning.

Empirically, clear results have not yet been yielded, that while some findings suggest a significant positive relationship between educational level and EDM (e.g., Browning & Zabriskie, 1983; Pierce & Sweeney, 2010), other studies have found no significant relationship exists between the two (e.g., Cohen et al., 2001; Karcher, 1996; Marques & Azevedo-Pereira, 2009).

Early reviews of empirical EDM literature have reported mixed results with respect to the impact of educational level on EDM. Ford and Richardson (1994) and Loe et al. (2000) have collectively provided seven studies that examined educational level effect on EDM. Clearly mixed results have been reported, while four studies have indicated some significant and positive association of educational level with ethical decisions (e.g., Jones & Gautschi, 1988; Lane, Schaupp, & Parsons, 1988), the remaining three have shown no significant results (e.g., Kidwell et al., 1987; Serwinek, 1992).

O'Fallon and Butterfield (2005) have provided twelve new findings concerning the influence of educational level on ethical choices. Three studies were related to ethical recognition. Significant positive relationship were found in only one study (Sparks & Hunt, 1998), while the remaining two indicated no significant association (Cohen et al., 2001; Karcher, 1996). Regarding ethical judgment, of the seven studies conducted, a majority (5 studies) indicated significant positive results (e.g., Tse & Au, 1997; Wimalasiri, Pavri, & Jalil, 1996), while educational level was found as having no influence on ethical judgment in the other two studies. Only two studies examined ethical intention. while Shafer et al. (2001) findings suggest no or non-significant impact of educational level on ethical intention, Cohen et al. (2001) found the relationship is significantly in the positive direction. After comparison with past reviews, O'Fallon and Butterfield (2005) concludes that empirical results generally support that more education is positively related to EDM.

More recent studies reviewed by Craft (2013) have reported six more findings related to the educational level effect on EDM stages. Only two findings were reported regarding ethical recognition stage and both have reported educational level as having no statistical significant influence on ethical sensitivity (Cagle & Baucus, 2006; Krambia-Kapardis & Zopiatis, 2008). The three studies that examined ethical judgment have provided no or little impact of educational level on ethical judgment (e.g., Marques & Azevedo-Pereira, 2009; Pierce & Sweeney, 2010). With respect to ethical intention that has been examined in only one study, in only one scenario, Pierce and Sweeney (2010) found that educational level positively influence ethical intention.

The current study's review, as presented in Table 2.4, has provided twelve additional findings regarding educational level effects on EDM. A sole study has examined ethical recognition suggests no significant differences in ethical recognition as based on educational level (Musbah et al., 2016). Ethical judgment has been examined in seven studies, only two studies found a significant association (Abdolmohammadi & Ariail, 2009; Shafer et al., 2016), no or few significant association was reported in the remaining five studies (e.g., Conroy et al., 2010; Doyle et al., 2014). For example, Musbah et al. (2016), in a study of Libyan management accountants, have reported no significant differences in ethical judgment as based on respondent's educational level. Educational level as related to ethical intention has been reported in four studies providing clearly inconsistent findings, that while two studies indicates that a positive association between the two exists (Bateman & Valentine, 2010; Musbah et al., 2016), non-significant association was reported in the other two studies (Nill & Schibrowsky, 2005; Shafer et al., 2016).

Overall, empirical studies regarding the role of educational level in EDM have continued to produce clearly mixed results, although nearly half of the findings (15 out 37 studies) supports that positive relationship between educational level and EDM, the remaining 22 studies found no or few significant differences in EDM as based on educational level. In conclusion, when differences are found in ethical decisions as dependent on educational

level, the relationship was in the positive direction. The trend of inconsistent findings provided by general business ethics research is somewhat similar to that provided by external audit ethics research specifically, eight studies examined educational level effects on auditors' EDM and six provided no or limited effects (e.g., Marques & Azevedo-Pereira, 2009; Pierce & Sweeney, 2010; Shaub, 1994), with the remaining two indicate that educational level positively affects auditors' ethical judgment (Abdolmohammadi & Ariail, 2009; Ponemon & Glazer, 1990). Despite these conflicting findings, the majority of findings support the positive direction of educational level and EDM relationship; not a single finding reported a negative relationship. The extensive use of cross-sectional methodologies rather than the longitudinal design that could provide more meaningful conclusions may be one reason behind providing such conflicting findings.

#### 2.4.1.4 Position Level

In terms of their expertise and talents, employees work for organisations are different. Each has his/her own duties and/or roles, and thus they might show different work-related behaviours and perspectives related to ethical issues in organisations (Chen, 2014a). Managers and workers have different roles and responsibilities and they rarely interact with each other, thus diversified perspective of organisational ethics is expected. Research has reported that as job position is higher it is likely to view the organisation as more ethical (Treviño, Weaver, & Brown, 2008).

Kohlberg's (1981) theory of moral development maintains that work experience in general could have significant and positive influence on adults' moral development. Thus, it can be predicted that position level is positively associated with moral development to the extent that job position is correlated with work experience, as in the case of audit firms (Pierce & Sweeney, 2010). Trevino (1986) also claims a link between job position and EDM through role taking and resolution of moral dilemmas. Individuals whose job positions encourage role-taking opportunities and hold them responsible for resolving ethical dilemmas are more likely to exhibit ethical choices (Trevino, 1986).

Recently, Chen (2014a) advances Merton (1968) theory of social structure into management research and argued that since individuals at higher organisational position levels are inherently more educated and receives higher compensation than their counterparts at lower positions, they are less likely to engage in deviant work behaviours. Treviño et al. (2008) suggest that senior managers, because of their managerial role, and their corresponding identification with the organisation, are likely to perceive organisational ethics more positively than lower level employees do. All these notions suggest that organisational ethical attitudes and behaviours differ significantly across levels, with higher-level employees exhibiting more ethical attitudes than their lower-level counterparts.

Although theoretical literature generally suggests the positive association between job position and individuals' ethical practices, mixed results, however, have been reported by prior business ethics research concerning the association of organisational level and EDM. Ford and Richardson (1994), while categorising position level as an organisational factor, reported six studies; out of which two have shown non-significant relationship between organisational level and ethical behaviour (Akaah & Riordan, 1989; Izraeli, 1988), three studies reported a significant negative association of organisational level and ethical choices (Chonko & Hunt, 1985; Delaney & Sockell, 1992; Posner & Schmidt, 1987), and the remaining study found that higher level employees were more aware of ethical problems than lower level employees (Mitchell, Lewis, & Reinsch, 1992). Ford and Richardson (1994) concluded that organisational level is negatively related to individuals' ethical behaviour.

Loe et al. (2000), however, in their review, have reported only two additional studies. A single study that reported no relationship between position level and individuals' ethical choices (Kohut & Corriher, 1994), and another that reported a substantial variance between the ethical responses from retail managers vs. retail salespeople (Henthorne, Robin, & Reidenbach, 1992). Sales managers have viewed the scenarios more critically than their subordinate retail sales people.

O'Fallon and Butterfield (2005) have reported an additional five findings related to the association of position level to EDM stages. While only one study was reported regarding ethical recognition and found no significant association of ethical recognition with position level (Karcher, 1996), two other studies have reported no influence of job position on ethical judgment (Kaplan, 2001; Shafer et al., 2001). Two other findings have been reported regarding ethical intention, while Shafer et al. (2001) have found that job position has no influence on behavioural intention of unethical actions, Shapeero, Koh, and Killough (2003) found a positive relationship between job level and intention to behave ethically, senior and staff-level accountants are more likely to intend to engage in unethical behaviour than supervisors and managers.

Recent literature reviewed by Craft (2013) has reported two additional findings related to position level association with EDM stages, a single finding related to ethical recognition component, and reported that managers are significantly more ethically sensitive than non-managers (Krambia-Kapardis & Zopiatis, 2008). While another study examined ethical judgment and found no significant relationship between organisational level and moral reasoning ability of managers (Forte, 2004).

The current study's review, as presented in Table 2.4, generally reveals an additional thirteen findings, and inconsistent findings were reported. A single finding was related to ethical recognition, and found that holding a managerial position is associated with lower likelihood of recognising an ethical dilemma (Kuntz et al., 2013). Seven studies were related to ethical judgment. Significant positive relationship was provided in only one study (Shafer et al., 2016). It was found that those in higher position tended to judge questionable actions as less ethical. Clearly inconsistent results were reported regarding ethical intention, while Shafer (2008) reported positive association, Shafer (2015) reported negative relationship. It was found that employees at higher positions estimated higher likelihood of committing operating earning manipulations. Shafer et al. (2016) reported no significant effect of position level on intention to commit tax fraud.

In two more studies, stages examined were not mentioned, and reported mixed findings, that while Chen (2014a) found that workers are more likely to be unethical than managers, inconsistently, Chen (2014b) found that, under cultural contexts of high ingroup collectivism and low performance orientations, people in higher job positions tend to be more unethical than their counterparts in lower positions.

Comparable to other demographic variables examined in the business ethics literature, it appears that a limited attention (28 studies) has been given to job level effects on EDM of individuals in the work place with clearly mixed findings reported, that while seven studies revealed significant positive relationships between job level and EDM process, 15 studies showed no significant results, and six studies suggest a negative relationship. Thus, it could not be concluded if position level has an association with EDM stages, and whether positive or negative association of position level with EDM exists. Nevertheless, given that some studies suggest a positive association, it appears that (Kohlberg, 1981) and (Trevino, 1986) suggestions that individuals' moral reasoning is likely to develop to higher stages as they gain more experience and get promoted to higher ranks found some support from empirical business ethics literature.

## 2.4.1.5 Professional Certification

In today's competitive business, there is an increased need to standardise professional competency and to identify and recruit those who possesses the knowledge, skills, and abilities required for optimal business performance (Lester, Mencl, Maranto, Bourne, & Keaveny, 2010). College degrees or years of work experience often vary widely in quality and relevance, thus they may be no longer sufficient to indicate professional expertise and competency (Lester, Fertig, & Dwyer, 2011). To standardise professional competence assessment, and to assist the stakeholders and the public in identifying who is qualified to practice the profession, a number of professional certifications in many disciplines have been adopted.

Professional certification of an individual's competencies has been a prominent and growing phenomenon in the labor markets around the globe. It is a process of assessment designed and implemented by an independent certification body to measure an individual's specific professional knowledge base (Fertig, 2011). It demonstrates an individual's mastery of a professional set of knowledge and skills required to effectively and competently perform his/her job functions and tasks (Lester et al., 2010). Ponemon and Schick (1998, p. 421) describes the U.S public accounting certification as "reliable and valid assessment for technical accounting, financial reporting, and auditing topics that should be well understood by individuals entering a career in the public accounting profession". Generally, individuals could pursue professional certifications mandatorily by the order of law and regulations governing the profession (e.g., medicine and external auditing), or voluntarily (e.g., Human resources management, internal auditing). In this regards, Lengnick-Hall and Aguinis (2012) distinguished between professional certifications and licensures, that while licensure is required from people by law to perform an activity, certifications are voluntary.

Most professional organisations, including accounting and auditing certification bodies, promote several individual-level benefits of obtaining a professional certification, such as career advancement opportunities, professional credibility, and obtaining distinctive knowledge and competency (Lester et al., 2011). Regarding the organisational-level benefits, holding a professional certification is linked to many different desirable organisational outcomes, including job competence and professional commitment. Fertig (2011) found that individuals who were self-determined to certify reported a higher levels of job competence and commitment to profession. Hall et al. (2005) argued that obtaining professional qualifications might be linked to higher levels of accountants' professional commitment.

Professional certifications as related to individuals' ethical choices have been suggested in the literature. It is argued that certification programs represent a significant socialisation process through which individuals exposed to the values, expectations, ethical requirements, and responsibilities of the profession (Hall et al., 2005). It is also argued that certified professionals received more ethics training than their non-certified counterparts. Differences in training and socialisation processes that emphasise the ethical duties of the profession are likely to be associated with professionals' ethical choices (Shafer & Wang, 2011). Professional certifications are perhaps the most significant contact between the profession and its members (Hall et al., 2005).

Business ethics literature in general has provided very few findings regarding obtaining a professional certification as related to individuals' ethical attitudes and behaviour. Within the four prior reviews (Craft, 2013; Ford & Richardson, 1994; Loe et al., 2000; O'Fallon & Butterfield, 2005), only one single study was reported regarding the professional certifications as associated to EDM stages. Craft (2013) has reported a single study related to ethical intention; CPA holders showed greater intention to whistle-blow than accountants who do not hold CPA certificate (Hwang, Staley, Te Chen, & Lan, 2008).

Additionally, the current study review, as presented in Table 2.4, has provided three more findings related to professional certification association to ethical judgment and ethical intention. Shafer and Wang (2011) found that certified accountants are more likely to perceive earnings management as unethical than accountants who did not hold a professional certification. However, Shafer (2008) found that certification status of CPAs in China was unrelated to ethical judgment or ethical intention.

Generally, very scant attention has been given to the association of holding a professional certification with EDM stages. Suggestions and arguments discussed here generally predict that certified auditors will show more ethical choices than their uncertified counterparts. This is not to question the value of accounting certifications, external audit certification in particular. It is the question of whether certified auditors who know what they should do will necessarily do what is needed to be done. Examination of the link between auditors' exposure to professional requirements and their EDM abilities may provide significant insights into the development of their ethical attitudes and behaviour.

#### 2.4.1.6 Work Experience

Aristotle asserts that a person cultivates through experience and training good habits (Solomon, 1992). Years of work experience effects on EDM have been the interest of business ethics researchers (e.g., Larkin, 2000; Pflugrath et al., 2007; Sparks & Hunt, 1998). Some have argued that there does not appear to be an association between work experience and EDM (e.g., Callan, 1992; Kohut & Corriher, 1994), whereas others argued a significant relationship between the two exists (e.g., Cohen et al., 2001; Jones & Kavanagh, 1996). Among other demographic variables, length of experience was identified as a variable that received little attention (Pierce & Sweeney, 2010). Sweeney et al. (2010) provided mixed results for the impact of length of experience on ethical intention and called for further research so that firm conclusions could be drawn.

Kohlberg's (1981) theory of cognitive moral development suggests a relationship between length of work experience and moral development, it maintained that individuals develop their ethical reasoning abilities from lower to higher stages as they gain more experience. Pimentel et al. (2010) argued that experience level is highly associated with greater exposure and internalisation of organisational norms and values related to resolving ethical issues. Glover, Bumpus, Sharp, and Munchus (2002) maintained that greater awareness of what is ethically acceptable and greater experience in resolving ethical dilemmas may be correlated with greater work experience.

With regard to the years of experience relationship with EDM stages, inconsistent results have been reported by empirical business ethics research. Early review of business ethics literature has provided mixed findings. Only four studies were reported by Ford and Richardson (1994) and two studies reported that experience is not significantly associated with individuals' ethical choices, while one study found that more years of experience is associated with more ethical responses, and the remaining study found that length of experience is not related to ethical choices. After eliminating the four studies that were reviewed by Ford and Richardson (1994), Loe et al. (2000) reported an additional four

studies and mixed findings were also reported. In two studies, greater work experience was associated with more ethical views. However, the other two studies have reported that no significant association exists between work experience and ethical choices.

O'Fallon and Butterfield (2005) concluded that, with regard to work experience relationship with EDM, mixed findings were commonly found. Ten studies were reviewed; only two examined ethical recognition, five looked at ethical judgment, while the remaining three investigated the effect of length of experience on ethical intention. Of the two studies that examined ethical recognition, Cohen et al. (2001) found work experience is positively associated with ethical awareness. However, Sparks and Hunt (1998) found no differences in marketing researchers' ethical sensitivity as based on experience. O'Fallon and Butterfield (2005) conclude that research generally indicates that length of experience is positively related to EDM.

Craft (2013) has reported seven findings related to the effect of work experience on EDM stages. One study examined ethical recognition and found that work experience was significantly related to one's tendency to be more morally conservative (McCullough & Faught, 2005). Four findings were reported regarding ethical judgment, while two indicated that work experience is positively related to ethical judgment (Pflugrath et al., 2007; Valentine & Rittenburg, 2007), Forte (2004) reported no significant results, and Pierce and Sweeney (2010) found that relationship between length of experience and ethicality was complex. Only two studies reported regarding ethical intention suggesting that work experience is positively related to ethical intention (Pierce & Sweeney, 2010; Valentine & Rittenburg, 2007).

The current study's review, as presented in Table 2.4, has provided an additional 15 findings; only two findings related to ethical recognition, seven related to ethical judgment and six were reported regarding ethical intention. Inconsistent findings have been reported. Two studies examined ethical recognition and found no or few significant effects (e.g., Husser et al., 2017). Musbah et al. (2016) found that experience is related to

ethical recognition in only one of four scenarios. Of the seven studies that examined ethical judgment, only one has provided positive results (Shafer, 2015), with the remaining provided no or few findings (e.g., Doyle et al., 2014; Espinosa-Pike & Barrainkua, 2016; Shafer et al., 2016). Of the six studies that examined ethical intention, three studies provided significant results (e.g., Bateman & Valentine, 2010; Sweeney et al., 2010). Sweeney et al. (2010) found that while length of experience is positively associated with intention to over-rely on client work, it was negatively linked to engage in under-reporting of audit work time. They conclude that further research is needed regarding the length of experience effects on auditors' ethical choices.

Generally speaking, although some mixed findings have been reported, business ethics literature suggests that length of work experience is positively associated with EDM stages; EDM abilities are likely to be higher with more years of work experience. Length of work experience is hypothesised and tested in this study as positively associated with auditors' ethical recognition, judgment, and intention stages of EDM process.

# 2.4.1.7 Personal Moral Philosophy (Idealism & Relativism)

Personal moral philosophy has received considerable attention in the business ethics literature. Ethical theories suggest the role of personal moral beliefs or philosophy in EDM. Various moral beliefs that individuals hold, consciously or unconsciously, about their world may influence their ethical attitudes and choices. It is generally argued that individuals will employ ethical prescriptions of their personal moral philosophies when judging ethical situations. Hunt and Vitell (2006) maintained that normative moral philosophies could act as one source to draw on in developing positive moral theories of EDM and people will follow suggestions and advice of moral philosophers when they are confronted with situations having an ethical content. Similarly, Ferrell and Gresham (1985) stress the importance of incorporating normative ethical standards derived from moral philosophy when developing frameworks for EDM, and propose that personal moral philosophy will influence individuals' EDM.

This assertion is also consistent with the general theory of ethics advanced by Hunt and Vitell (1986). The essence of their EDM model in marketing is the deontological and teleological philosophical prescriptions of ethical reasoning. They used these moral theories as core components of their model, and propose that an individual's judgment about the ethicality of an alternative is a function of both deontological and teleological evaluations. Several studies have suggested moral philosophies to be a significant variable affecting an individual's ethical choices (e.g., Musbah et al., 2016; Vitell & Patwardhan, 2008; Yetmar & Eastman, 2000). More understanding of the role of normative perspectives in making ethical decisions is still needed (Ferrell, Crittenden, Ferrell, & Crittenden, 2013).

An individual's moral philosophy (ethical ideology) refers to the principles or rules that individuals consider when judging the rightness or wrongness of an action (Ferrell & Fraedrich, 1997). It determines the standards that individuals use to evaluate ethical situations (Sivadas, Bardi Kleiser, Kellaris, & Dahlstrom, 2003). It denotes the "system of ethics used to make moral judgments, which offers guidelines for judging and resolving behaviour that may be ethically questionable" (Henle, Giacalone, & Jurkiewicz, 2005, p. 219). It is basically drawn upon normative moral philosophies, such as egoism, utilitarianism, justice, relativism, ethical scepticism, and deontological and teleological evaluations.

The subject of personal moral philosophy has been a frequent topic of research and discourse in business ethics for many years. However, the work of Schlenker and Forsyth (1977) and Forsyth (1980) has been the most influential in business ethics literature. Ethics Position theory (EPT) suggests that individual variations in their judgments about situations involving ethical dilemmas could be explained, in part, by variations in their personal moral philosophy (Forsyth, 1980). Conceiving that personal moral philosophy is a two-dimensional concept, and based on contrasts made by moral philosophers and psychologists between moral theories based on principles (deontological models) and theories that focus on the consequences of the actions (teleological models), Schlenker

and Forsyth (1977) maintained that personal moral philosophy stems from two dimensions, **Idealism and Relativism**. They suggest that an individual's moral philosophy vary a long these two philosophical dimensions. These two dimensions are not opposites (Shaub et al., 1993), however they are two conceptually distinct dimensions of moral philosophy (Al-Khatib et al., 2016; Fernando, Dharmage, & Almeida, 2008). People may be high or low on either dimension (Fernando et al., 2008). Adapting one of these dimensions does not preclude a person from acting according to the other (VanMeter, Grisaffe, Chonko, & Roberts, 2013). Individuals that adapt a high idealist moral philosophy can have high or low levels of relativism. Idealism and relativism dimensions will influence how individuals would handle ethically challenging situations (Forsyth, 1992). An individual's ethical choices can be best explained by taking into account these two dimensions of moral philosophy (Schlenker & Forsyth, 1977). Forsyth (1980) two-dimensional model of personal moral philosophy is similar to deontological/teleological paradigm (Al-Khatib et al., 2016).

**Moral Idealism** describes the degree to which people understand and judge actions as inherently right or wrong, regardless of the consequences resulting from those actions; it represents the degree to which people assume that a "right" action that produces positive consequences is attainable (Forsyth, 1980). Idealists believe that a "right" decision can be made in ethically questionable situations they may confront (Al-Khatib et al., 2016). It portrays the acceptance of moral absolutes (Al-Khatib et al., 1997). When judging ethical actions, idealists adhere to moral absolutes (Forsyth, 1992). Individuals with high level of idealism believe that it is always unethical to follow a path that may cause any undesirable consequences to others (Marques & Azevedo-Pereira, 2009). On the other hand, less idealistic individuals believe that there are times when harm could be acceptable for the sake of producing the greatest attainable benefit to the greatest number of people (Forsyth, 1992). These arguments and definitions propose that idealism is correlated positively with high ethical standards and ethical actions.

**Moral Relativism** represents the extent to which an individual rejects universal moral rules or standards of ethical practice when making ethical judgments. Moral relativism views all prescriptions of a given moral system are always relative to some social, cultural, historical, or individual context (Marta et al., 2012). Relativistic individuals refutes that universal moral standards could be relied upon when judging ethically questionable situations (Forsyth, 1980).

At one end of the relativism dimension, highly relativistic individuals do not believe in absolute moral truths, and they instead, believe that moral actions are contingent upon the nature of the situations and individuals involved. However, low relativistic individuals have more cognitive faith in moral standards and rulings and believe that those principles are usable to define what is right and what is wrong (Forsyth et al., 2008). Forsyth (1992) maintained that highly relativistic individuals advocate the philosophy of moral scepticism. Ethical issues are viewed as dependent on the nature of the situations and the persons involved, and the judgment of the ethical issues will be based on weighting the circumstances more than the ethical ruling that has been violated. These claims postulate that relativism does not result in high ethical standards. The cross-section of the idealism and relativistic and idealistic. The cross-section and dichotomisation of high/low levels of idealism and relativism resulting into the four moral ideologies, namely Situationists, Absolutists, Subjectivists, and Exceptionists.

**Situationists** are those people who have high level of idealism and relativism. They are individuals who abstain from universal moral principles and believe that their choices should produce positive consequences (Forsyth, 1992). **Subjectivists** are individuals who believe highly in relativism and have low level of idealism. They reject moral guidelines and standards (Forsyth, 1992). **Absolutists** (low relativism and high idealism) believe that through conformity to moral rules and standards, actions are ethical provided they yield positive consequences (Forsyth, 1992). They tend to be very strict in applying

moral rules and guidelines when judging ethical issues. **Exceptionists** (low relativism and low idealism), believe that, for practical reasons, exceptions from conformity to moral rules could be allowed (Forsyth, 1992) as negative consequences cannot always be avoided. Advocates of this philosophy believe that their actions could cause harm for some people for the sake of benefiting other people. It is generally argued in the business ethics literature that absolutists are the strictest when making moral judgments. In contrast, subjectivists are the most lenient when judging ethical issues (Hartikainen & Torstila, 2004; Marques & Azevedo-Pereira, 2009). Forsyth et al. (2008) concluded that an exceptionist ethic is more common in western societies, subjectivism and situationism is commonly found in eastern countries, while absolutism and situationism is more common in Middle Eastern countries such as Egypt. Egyptians tended to be idealistic, absolutists in particular.

The construct of personal moral philosophy as originally conceptualised by Schlenker and Forsyth (1977) and Forsyth (1980) was based on classical moral philosophies of teleology, deontology, and ethical scepticism (Barnett, Bass, & Brown, 1996; Bass, Barnett, & Brown, 1999). Barnett, Bass, and Brown (1994) claimed that differences among these ethical philosophies are essentially based on the degree to which each posits the existence of universal moral principles. Al-Khatib et al. (2016) maintained that idealism is essentially the deontological perspective that entails the concern for others' welfare when judging ethical situations. Marta, Singhapakdi, and Kraft (2008) argued that idealism and relativism loosely conform to personal expressions of moral philosophies such as formalism and utilitarianism. Furthermore, it is generally argued that each of the four moral ideologies conceptualised in Forsyth's taxonomy represents a specific philosophical school of thought; situationist and subjectivist tends to supports an ideology of ethical scepticism and egoist, absolutist support the deontological norms, and exceptionist tend to agree with the teleological moral philosophy and rule-utilitarianism (Barnett et al., 1994; Fernando et al., 2008).

	High relativism	Low relativism
High Idealism	Situationist Reject moral rules; ask if the action yielded the best possible	<i>Absolutist</i> Feel actions are moral provided they yield positive consequences
High	outcome in the given situation.	through conformity to moral rules.
	Subjectivist	Exceptionist
Е	Reject moral rules; base moral	Feel conformity to moral rules is
Low idealism	judgments on personal feelings	desirable, but exceptions to these
v ide	about the action and the	rules are often permissible.
Lov	setting.	

Figure 2.4 Taxonomy of Ethical Ideologies

Source: Forsyth (1980, 1992)

Forsyth (1980) has developed the Ethics Position Questionnaire (EPQ) to operationalise dimensions of personal moral philosophy. Originally, EPQ comprised a series of 20 attitude statements, 10 items concerning idealism and 10 items regarding relativism. Evaluating responses to the EPQ and averaging the total scores of respondents on both scales enables researchers to classify respondents among the four ethical philosophies as originally conceptualised in Forsyth's taxonomy of personal moral philosophy (Fernando et al., 2008). The EPT and the EPQ have been subjected to several empirical studies in the business ethics literature. Idealism and relativism dimensions have been found to be significantly related to various ethics variables. Idealism was found to be positively related to many desired organisational ethics outcomes including higher honesty, deontological norms, integrity (Vitell, Rallapalli, & Singhapakdi, 1993), higher perceptions regarding the importance of ethics and social responsibility in achieving organisational effectiveness (Singhapakdi, Kraft, Vitell, & Rallapalli, 1995), increased ethical issue recognition (Valentine & Bateman, 2011), enhanced perception of moral intensity of ethical issues (Singh et al., 2007), ethical judgment (Vitell et al., 2003; Vitell & Joseph, 2003), and ethical intention (Vitell & Patwardhan, 2008).

On the other hand, relativism dimension found to be negatively related to perceived role of ethics and social responsibility (Vitell & Joseph, 2004), and ethical intention (Singhapakdi, Gopinath, Marta, & Carter, 2008; Singhapakdi, Marta, Rallapalli, & Rao, 2000). In this study, Forsyth (1980) taxonomy of personal moral philosophy was employed to examine its influence on external auditors' EDM stages. Theoretically, this study proposes that while idealism is positively related to external auditors' EDM stages, relativism is negatively related.

Empirically, the issue of personal moral philosophy has attracted the attention of many researchers. A relatively large number of researchers have examined empirically the effects of idealism and relativism dimensions on various stages of EDM process and provided somewhat consistent findings (e.g., Singh et al., 2007; Singhapakdi et al., 2000). Earliest review of EDM research has failed to report any findings concerning the effect of idealism and relativism dimensions on EDM stages (Ford & Richardson, 1994). However, Loe et al. (2000) have provided fifteen findings related to personal moral philosophy effects on EDM, of these only one study (Tansey, Brown, Hyman, & Lundon E. Dawson, 1994) have adopted Forsyth's conceptualisations and revealed that idealism and relativism dimensions do have an impact on ethical judgment and intention. The majority (12 studies) of the remaining studies have used different conceptualisation of moral philosophy such as deontology and teleology and revealed that moral philosophy does impact individuals' EDM process (e.g., Cohen, Pant, & Sharp, 1993; Fraedrich, 1993).

Regarding idealism and relativism effects on EDM stages, O'Fallon and Butterfield (2005) concluded that empirical research has produced consistent findings. Idealism is positively related to EDM process, whereas relativism is negatively related. Idealism and relativism dimensions in relation to EDM stages were reported in eighteen studies reviewed by O'Fallon and Butterfield (2005). Ethical recognition was examined in two studies and both found that relativism is negatively associated with ethical recognition (Sparks & Hunt, 1998; Yetmar & Eastman, 2000). Thirteen studies examined ethical

judgment, with the majority (11 studies) found significant results. Idealism is positively related to ethical judgment while relativism is negatively associated (e.g., Barnett et al., 1996; Bass et al., 1999). For example, Elias (2002) found that high idealists judged the earning management actions as more unethical, while high relativists judged them as more ethical. Ethical intention was examined in five studies; two studies found that idealism and relativism dimensions are significantly related to ethical intention (e.g., Singhapakdi et al., 2000). Sivadas et al. (2003) found that while relativism is related to sales managers' hiring intention of salesperson, who had performed an ethically questionable act, idealism reveals no significant results. The remaining three reported no significant results concerning personal moral philosophy and ethical intention relationship (Bass, Barnett, & Brown, 1998; Bass et al., 1999; Eastman, Eastman, & Tolson, 2001).

Regarding personal moral philosophy, several findings have been reported by Craft (2013) regarding different moral ideologies in relation to EDM stages. Idealism and relativism dimensions have been reported in seven studies, of these, only two studies examined ethical recognition. Idealism was found to affect significantly ethical recognition in one study (Valentine & Bateman, 2011), while no significant findings were reported by the other study (Chan & Leung, 2006). The three studies that examined ethical judgment showed significant results, Moral idealism was found as significantly and positively influences ethical judgment, while moral relativism effect was significantly in the negative direction (Callanan, Rotenberry, Perri, & Oehlers, 2010; Greenfield, Norman, & Wier, 2008; Marques & Azevedo-Pereira, 2009). Ethical intention was examined in the remaining two studies, while Marta et al. (2008) found that idealism and relativism were not likely to have an impact on managers' ethical intention, Valentine and Bateman (2011) found that individuals were more likely to exhibit ethical intentions in a sales context when they were using less relativistic moral philosophy.

The current study review, as presented in Table 2.4, has provided thirteen additional findings that are consistent with previous reviews' results. Ethical recognition was

reported in two studies providing significant results that while idealism is positively related to ethical recognition, relativism is negatively related (Johari et al., 2017; Musbah et al., 2016). Ethical judgment was examined in six studies, two studies showed non-significant results (Shafer, 2008; Singh et al., 2007) that suggest non-significant association of personal moral philosophy with ethical judgment. Inconsistently, Bobek et al. (2015) found that relativism, and not idealism, is related to ethical judgment, with the remaining three studies support the notion that personal moral philosophy influences ethical judgment (e.g., Clouse et al., 2015; Woodbine, Fan, & Scully, 2012). A significant positive (negative) influence of relativism (idealism) on participants' acceptability of questionable decisions about financial issues has been reported by Clouse et al. (2015). Five studies examined ethical intention; relativism affected significantly ethical intention in one study (Bobek et al., 2007), the remaining two studies showed significant results (Musbah et al., 2016; Vitell & Patwardhan, 2008). Moral idealism positively affects ethical intention, while relativism negatively influences ethical intention.

Generally speaking, previous literature has consistently showed that personal moral philosophy does affect EDM stages and consistent findings have been reported, while idealism positively affects EDM stages, relativism influence on EDM stages was consistently reported as negative.

### 2.4.1.8 Professional Commitment (Affective & Normative)

Over the past thirty years, professional commitment (PC) has been the interest of business research generally and accounting research in particular. Research indicates its significant and positive relationship with many desired positive organisational and professional outcomes, such as job satisfaction (e.g., Aryee, Wyatt, & Min, 1991; Brierley, 1996; Irving, Coleman, & Cooper, 1997; Meyer et al., 1993; Sezgin & Agar, 2012), reduced organisational-professional conflict (e.g., Shafer, Poon, & Tjosvold, 2013b), professional satisfaction (e.g., Bline, Duchon, & Meixner, 1991), reduced organisational/professional turnover intentions (e.g., Aryee et al., 1991; Bline et al., 1991;

Smith & Hall, 2008; Snape & Redman, 2003; Yousaf, Sanders, & Abbas, 2015), as well as ethical attitudes and decision making (e.g., Jeffrey & Weatherholt, 1996; Jeffrey, Weatherholt, & Lo, 1996; Shafer et al., 2016; Taylor & Curtis, 2010).

PC refers to the relative strength of an individual's identification with, and involvement in his/her profession. It implies an individual's belief in the values of the profession, his/her eagerness to exert effort on behalf of the profession, and a willingness to retain his/her membership in the profession (Aranya, Pollock, & Amernic, 1981). It is assumed to be developed during the socialisation process that is likely to occur after the careerentry and during the early years of practicing the profession (Shaub et al., 1993).

Different conceptualisations for PC exist. Based on the early and more established work on organisational commitment, Aranya et al. (1981) have firstly developed and tested a single-dimensional construct of PC on Canadian chartered accountants in public practice in an attempt to explore and develop a theoretical model to identify the antecedents and outcomes associated with accountants' PC. Later, Meyer and Allen (1991), based on their view that commitment is a complex and multifaceted construct, have introduced their three-dimensional reconceptualisation of organisational commitment. Later, this reconceptualisation has been extended by Meyer et al. (1993) to the domain of professional commitment. Meyer and Allen (1991) referred to three themes of commitment: affective, continuance and normative.

Affective organisational/professional commitment (APC) refers to an individual's extent of emotional attachment to, identification with, and involvement in his/her organisation/profession. Individuals with high levels of affective commitment stay in their organisation/profession because they want to do so. It is a values-based commitment that involves identification and enthusiasm (Snape, Lo, & Redman, 2008). Normative organisational/professional commitment (NPC) refers to individuals' feeling of obligation to stay in their organisation/profession, individuals with strong normative commitment feel they ought to stay in their profession due to a sense of obligation to it; it is motivated by sense of duty to individual's profession (Meyer et al., 1993). Continuance organisational/professional commitment (CPC) refers to the extent of individuals' awareness of the costs associated with leaving the organisation/profession. It implies the extent to which an individual feels they need to stay in their profession due to their investment in professional/organisational specific skills and/or the lack of suitable employment alternatives (Meyer & Allen, 1991; Meyer et al., 1993). They argued that, although the three dimensions are similar regarding the view that commitment is a psychological state of attachment to the organisation/profession, the nature of this psychological state is quite different among the three forms of commitment. Each commitment aspect involves an attachment to the occupation, albeit for different reasons (Snape et al., 2008). Accounting researchers (Hall et al., 2005; Smith & Hall, 2008) argued that a more in-depth and complete examination of accountants' PC might be achieved by considering the three commitment components while examining accountants' PC.

Empirical research supports the use of multi-dimensional approach to the study of PC. The existence of affective, continuance, and normative PC has been empirically demonstrated. Using a sample of student and registered nurses to test for discriminant validity of their three-dimensional conceptualisation of professional commitment, Meyer et al. (1993) have demonstrated that the three dimensions distinctively correlated with their theoretically defined antecedents and consequences. For example, their findings show that while APC and NPC correlated positively with intention to remain in the profession, continuance dimension correlated significantly in a negative direction. Similarly, affective and normative dimensions of PC were positively correlated with job satisfaction; however, CPC was negatively correlated. Similarly, among a professional heterogeneous sample, including technical operators, radio operators, executives, and clerical staff, to assess the generalisability of the Meyer et al. (1993) three-dimensional model of PC, and found that PC dimensions were differently correlated with antecedents and outcomes. Moreover, Snape and Redman (2003) found support for the

three-component model of PC among a sample of human resource specialists in the UK, and later Snape et al. (2008), using samples of British management accountants and Chinese public accountants have found support for its cross-cultural validity.

In an accounting context, despite these developments that demonstrates the existence of the three-dimensional nature of commitment outside accounting, and the criticisms concerning the psychometric properties of the PC scale (Dwyer, Welker, & Friedberg, 2000), the majority of prior research on accountants' PC has used the single-dimensional operationalisation that captures only the affective dimension of PC (Hall et al., 2005; Smith & Hall, 2008). In their review of studies examined the antecedents and outcomes of accountants' PC, Hall et al. (2005) identified 25 studies, all have used the single-dimensional conceptualisation of PC with the majority (21 studies) used the professional commitment questionnaire (PCQ) developed earlier by Aranya et al. (1981). However, after Smith and Hall (2008) firstly attempted and found support, among a sample of public accounting professionals, that the PCQ is a measure of a single dimension of professional commitment, APC specifically, more recent research in the accounting context has widely adopted three-dimensional conceptualisation for PC (see for example:McManus & Subramaniam, 2014; Shafer, Poon, & Tjosvold, 2013a; Shafer et al., 2013b; Shafer et al., 2016; Snape et al., 2008; Uyar & ÖZer, 2011).

### 2.4.1.8.1 Professional Commitment and EDM Stages

In general, PC is commonly viewed in terms of identification and dedication to the profession and professional career as well as acceptance of professional ethics and goals. It is a commitment to a value system internalised by the professional. In their general theory of marketing ethics, Hunt and Vitell (1986) have identified several personal characteristics that might influence EDM process and maintained that an individual's EDM is likely to be influenced by his/her value systems. Hunt and Vitell (2006) urged researchers to explore a diverse set of values and the extent to which these values affect EDM including an individual's commitment to his/her profession and/or organisation.

Relationship of PC and EDM has been theoretically discussed in the literature. In their seminal work on accountants' PC, Aranya et al. (1981) argued that an individual's identification with his/her profession (PC) requires some level of agreement with the goals and values of the profession, thus highly committed accountants are expected to be more sensitive to ethical issues than their less committed counterparts. Aranya, Lachman, and Amernic (1982) argued that PC developed by means of professional socialisation/acculturation process that likely to occur in the early stages of career development, during which emphasis is strongly directed towards adherence to professional values. It is likely to predict that this process could have a significant effect on accountants' attitudes towards professional values and norms (Smith & Hall, 2008).

Similarly, Aranya et al. (1982) and Lachman and Aranya (1986) suggested that higher PC should result in higher sensitivity to issues related to professional ethical values. It is widely viewed among accounting professionals that enforcement of ethical standards is extremely important for continued health and growth of the accounting profession (Shaub et al., 1993). Thus, one could argue that the higher the accountant is committed to his/her profession, the higher he/she will be willing to comply with professional ethical standards. Furthermore, Smith and Hall (2008) asserted that accountants with higher APC and NPC are more likely to comply with professional ethical standards.

The expectation that professionally committed individuals will be less likely to engage in unethical behaviour is consistent with the relatively very limited previous literature examining the PC effects on EDM stages. For example, Greenfield et al. (2008), in their study among 376 senior-level business students, have found a negative relationship between the level of PC and earnings management behaviours. Recently, Clayton and van Staden (2015) found support for the notion that high affectively committed accountants are more likely to withstand social influence pressures (conformity pressures or obedience pressure) to make unethical decisions.

Prior reviews (Craft, 2013; Ford & Richardson, 1994; Loe et al., 2000) failed to report any findings regarding the influence of PC on EDM stages, however, O'Fallon and Butterfield (2005) have reported a sole study related to ethical recognition. Yetmar and Eastman (2000) suggest no support for a positive relationship between PC and ability to identify ethical issues.

The review of this study, as presented in Table 2.4, revealed only five additional findings related to PC effects on EDM. While no finding was reported regarding ethical recognition, two studies examined the judgment component, and ethical intention was reported in three studies. Regarding ethical judgment, Shafer et al. (2016) reported that tax accountants who possessed higher levels of PC judged tax fraud as more unethical. Similarly, Elias (2006) found that students with higher PC will be more likely to perceive questionable actions as unethical. Of the three findings reported regarding ethical intention, Taylor and Curtis (2010) have found a significant positive relationship between an auditor's level of PC and his/her intention to report an unethical behaviour. Similarly, Elias (2006) reported that students with higher PC will be less likely to engage in unethical actions. However, Shafer et al. (2016) failed to find a significant relationship between tax accountants' PC and their intention to commit tax fraud.

Overall, it could be concluded that relatively little attention (6 findings) has been given to the issue of PC and EDM relationship in both the business and accounting contexts, and to date, empirical studies regarding the role of PC in EDM process have continued to produce clearly inconsistent and mixed results. While two of the six findings reviewed found no significant impacts or relationships, the other four findings provided significant results.

Similarly, within the accounting context specifically, several attempts have been conducted regarding the effects of accountants'/auditors' level of PC on their ethical attitudes, with the majority using a one-dimensional measure which Smith and Hall (2008) concluded that it essentially captures only the affective dimension, and fairly

inconsistent results have been found. In their review of the literature to identify important antecedents and outcomes of accountants' PC, Hall et al. (2005) reported five empirical studies related to the relationship between EDM and accountants' PC. Two studies revealed that PC had a significant and positive impact with rule observance attitudes (Jeffrey & Weatherholt, 1996; Jeffrey et al., 1996). They concluded that accountants with higher levels of PC are more inclined to observe the professional rules.

While these findings suggest a significant relationship, the other three studies suggest the opposite; regarding ethical recognition, Shaub et al. (1993) conclude that higher level of PC did not result in more ethically sensitive auditors, defined as being able to recognise ethical issues in a brief case. Similarly, Lord and DeZoort (2001) found a non-significant relationship between participants' level of PC and the mean balance proposed for an asset of dubious value. Regarding ethical intention, also Kaplan and Whitecotton (2001) found a non-significant support for the positive effect of an auditor's level of PC and his/her intention to report unethical acts.

APC, which represents an emotional attachment to one's profession, entails strong identification with the goals, values, objectives, and standards of the profession (Smith & Hall, 2008). One could argue that a higher level of APC suggests a stronger awareness and eagerness to maintain professional social responsibilities or more commitment to serve the public interest (Shafer et al., 2016). This suggests a positive relationship between APC and external auditors' EDM stages (Recognition, Judgment, and Intention).

As with APC, NPC reflects the sense of loyalty to one's profession, an auditor sense of obligation to the profession may be due to a sense of acceptance to the professional values and norms and feeling of obligations towards complying with these rules and values. Thus, it is predictable that an external auditor's level of NPC is positively associated with his/her EDM stages (Recognition, Judgment, and Intention). Unlike APC and NPC that stem from emotional attachment (APC) or sense of loyalty to maintain professional ideals and values (NPC), CPC stems from the need to stay in the profession

due to practical reasons related to other job alternatives. It is less likely to believe that an individual's level of CPC could have an influence on his/her level of ethical recognition, judgment, and intention. Thus, no hypotheses are to be tested within the current research regarding the effect of CPC on external auditors' EDM process. To the best of the researcher's knowledge, unlike the current study, no prior study has examined the effect of multiple dimensions of PC on external auditors' EDM stages (recognition, judgment, and intention).

## 2.4.2 Organisational Context and EDM Stages

Individuals do not work in a vacuum; the decision context in which individuals find themselves is also relevant to their EDM process. The same individual may act differently depending on the environment one is situated within (Schwartz, 2016). This accords with Aristotle approach of business ethics that integrity of business organisations determines the integrity of business people (Solomon, 1992). Multiple aspects of organisational contexts have been theorised and extensively examined in the business ethics literature as influencing individuals' decision making process concerning ethical issues. Organisational context occupies a prominent place in current EDM theories developed in the business ethics literature (Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Jones, 1991; Pimentel et al., 2010; Trevino, 1986). These theories have long recognised the role of situational/organisational variables in EDM process. Some business EDM theorists have implicitly included them in their models under the heading of situational variables (Ferrell & Gresham, 1985; Trevino, 1986), or under the heading of significant others and opportunity (Hunt & Vitell, 1986), while others have explicitly included them in their models under the heading of organisational factors (e.g., Jones, 1991).

Situational/organisational factors refer to "characteristics of the decision setting (versus characteristics of the decision maker or the decision) that should influence the decision making process and outcomes" (Ross & Robertson, 2003, p. 214). It includes all factors that do not relate to the decision maker as an individual or the decision alternatives (Ross

& Robertson, 2003). They are "components of the firm and the business environment that can influence ethical behaviour" (Lehnert et al., 2015, p. 203). Some theorists have argued that it may present obstacles or specific challenges to individuals in making decisions of ethical character (Hunt & Vitell, 1986; Jones, 1991). These factors include for example, organisational size, code of ethics, socialisation processes, training, ethical culture/climate.

Within the business ethics literature, organisational ethical context in relation to EDM process has received relatively little attention (Shafer & Simmons, 2011a). Several organisational variables have been examined in relation to EDM process, including codes of ethics, rewards and sanctions, ethical culture/climate, and opportunities to engage in unethical behaviour (Loe et al., 2000). The organisational variables studied in connection with ethical decision seem to be ever-expanding, this is highlighted in consequent extensive literature reviews for the field, while Ford and Richardson (1994) reported 9 organisational factors categories examined, and there were only 5 categories in Loe et al. (2000) review, the number of categories examined have risen to be nearly doubled in O'Fallon and Butterfield (2005) review, as they reported 13 organisational factors categories examined. More recently, the review done by Craft (2013) has reported 14 categories, including rewards/sanctions, ethical culture, code of ethics, organisational size as the categories that have received the most research attention. Within the current study, among a wide variety of organisational variables, three variables have been selected for examination in relation to external auditors' EDM stages. They are, audit firm size, code of ethics, and ethical climate.

Business ethics literature has demonstrated the influence of these variables on EDM process. However, little research has been done in the auditing context concerning their relationship with auditors' EDM process. The current study tends to fill in these gaps by examining the effects of ethical climate, audit firm size, and organisational code of ethics in relation to three stages of external auditors' EDM process. The theoretical underpinnings and empirical findings related to these relationships are discussed.

# 2.4.2.1 Organisational Size and EDM Stages

The impact of organisational size on EDM has been theoretically discussed and empirically examined in the descriptive business ethics literature. Work environments between large and small firms are largely different (Appelbaum, Deguire, & Lay, 2005; Jeffrey & Weatherholt, 1996; Wheeler, Felsing, & Reilly, 1987). Longenecker, Moore, Petty, Palich, and McKinney (2006) suggest a positive relationship between organisational size and ethical attitudes. They argued that formal systems of EDM enhancement (e.g., code of ethics and ethics training) are more likely to be found in larger firms than in smaller ones. Organisational support and ethics training are likely to improve an individual's ethical reasoning abilities (Jones & Hiltebeitel, 1995), thus, it is expected to find EDM in large firms more constrained by an ethical framework than in smaller firms. Similarly, Clarke, Hill, and Stevens (1996) argued that support mechanisms to ethical decisions, which are more likely to exist in large firms than in smaller ones, are likely to influence the ethical practices in organisations. Thus, it is expected that more ethical practices are to be found in large organisations. Noreen (1988) posits that larger organisations have a stronger ethical culture that promotes ethical behaviour. Numerous findings within the accounting context suggest that an association may exist between ethical attitudes of accountants/auditors and the size of the audit firm they work for (e.g., Jeffrey & Weatherholt, 1996; Loeb, 1971; Pratt & Beaulieu, 1992).

Within the auditing context specifically, external auditors work for audit firms that vary in size. Differences between large and small audit firms are evidential in terms of the clients' size, work environment, organisational structure, promotion strategies, compensation schemes, and performance evaluation (Wheeler et al., 1987). Pratt and Beaulieu (1992) summarised the differences between large and small audit firms. They concluded that large firms have greater emphasis on time pressure and more rigid control structures. As differences exist between firms in terms of training and socialisation programs, audit methodologies, and hiring preferences, ethical attitudes of auditors work for different firms are likely to be significantly different (Bernardi & Arnold, 1997). In

their seminal work on the theory of auditing, Mautz and Sharaf (1961) maintained that large firms would not be as economically dependent on any one client as a small firm. Thus, it is expected from larger firms to adhere strongly to independence than small firms. Ponemon and Gabhart (1993) suggest that, within large accounting firms, peer review mechanisms, as well as affiliation with colleagues and supervisors may mitigate the potential for unethical behaviours.

Empirically, organisational size in relation to EDM stages has received relatively little attention in the business ethics literature and yielded conflicting results (Craft, 2013). An early review conducted by Ford and Richardson (1994) reported only three findings regarding the influence of organisational size on EDM process. Inconsistently with theoretical foundations, the three revealed a negative impact of organisational size on ethical judgment. While Loe et al. (2000) failed to report any further investigations, O'Fallon and Butterfield (2005) have reported five additional findings. While three findings suggest no significant relationship between organisational size and ethical judgment, only two have failed to support any significant relationship with ethical intention (Paolillo & Vitell, 2002; Shafer et al., 2001), with no findings reported regarding ethical recognition. O'Fallon and Butterfield (2005) concluded that mixed and conflicting results have been reported and suggest a need for further research. Interestingly, three additional findings were reported by Craft (2013), a single finding supports a positive relationship between organisational size and ethical judgment (Pierce & Sweeney, 2010). It was found that respondents from large firms have higher ethical views than respondents from medium-sized firms. The other two findings were related to ethical intention and suggest that a positive relationship exists between organisational size and ethical intention (Marta et al., 2008; Sweeney et al., 2010). Again, with no findings reported for ethical recognition.

The current study review, as presented in Table 2.4, reports ten more findings regarding the influence of organisational size and the first three EDM stages. Two related to ethical recognition and found no significant results (Husser et al., 2017; Musbah et al., 2016).

Six more findings related to ethical judgment. While five have found very limited or no significant results (e.g., Doyle et al., 2014; Musbah et al., 2016; Sweeney et al., 2010), Bobek et al. (2015) reported that firm size is significantly and positively related to male public accountants' ethical recommendations. Ethical intention was examined in two studies, while Musbah et al. (2016) reported limited significant positive results regarding organisational size association with ethical intention. Bobek et al. (2015) reported that firm size is significantly and positively related to ethical intention.

As per the four extensive literature reviews, in addition to the current study review, it can be concluded that relatively little attention has been given to examining the influence of organisational size on EDM providing mixed and inconsistent results, that warrants a further research in this area. To date, it appears that no prior study has investigated the influence of organisational size on external auditors' ethical recognition stage. Empirical auditors' EDM research has been criticised for the extensive use of subjects from **Big-X** firms (Arnold, Dorminey, Neidermeyer, & Neidermeyer, 2013). It is generally recommended to examine the association of firm size with auditors' EDM if we intend to truly understand the entire profession of external auditing. The current study aims to overcome this limitation by examining the impact of firm size on external auditors' first three stages of EDM.

### 2.4.2.2 Organisational Code of Ethics and EDM Stages

Codes of ethics or codes of conduct are considered one of the most notable features of ethics practices in today's business organisations (Chen, Gotti, Kang, & Wolfe, 2016; Cowton & Thompson, 2000; Pater & Van Gils, 2003). They are an integral part of an organisational ethics program that designed to create an ethical culture within the organisation, and to obstruct (stimulate) unethical (ethical) behaviour within organisations (Kaptein, 2015). It is usually supplemented by other mechanisms such as ethics training, ethics committee, and hotline support for whistleblowers (Singh, 2011). They are now prevalent in the majority of large corporations around the globe (Schwartz, 2002), and its adoption for employees is now the norm in many businesses and industries.

Kaptein and Schwartz (2008, p. 113) defined a code of ethics as "a distinct and formal document containing a set of prescriptions developed by and for a company to guide present and future behaviour on multiple issues of at least its managers and employees toward one another, the company, stakeholders and/or society in general". It represents written documents through which corporations make their normative commitment explicit (Painter-Morland, 2010). It acts as surrogate indications of corporate management's commitments to ethical practices (Ford & Richardson, 1994). These definitions and descriptions imply that codes of ethics are focused on issues related to ethical behaviour in organisations, and that code of ethics involve diverse stakeholders within organisations.

Organisational codes of ethics design and contents have been regarded as linked to its effectiveness in promoting organisational ethical practices. Within the theoretical EDM literature, corporate code of ethics has been argued to be an essential organisational element of influence on individuals' ethical reasoning (Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Jones, 1991). As part of her model for EDM in organisations, Trevino (1986) has explicitly proposed that code of ethics is an integral part of the organisational ethical context and it will affect the ethical/ unethical behaviour significantly only if they are consistent with the organisational ethical culture. Individuals' ethical development is likely to proceed to higher level in the presence of organisational support through existence and enforcement of organisational code of ethics and ethical training (Jones & Hiltebeitel, 1995). Due to its theoretical potential effects on individuals' ethical attitudes and behaviour, the existence of codes of ethics has been examined widely in the business ethics literature as related to EDM process, and has been found to be positively influence ethical attitudes and behaviour within organisations (Kaptein & Schwartz, 2008).

In the early review of the empirical business ethics literature, Ford and Richardson (1994) reported nine studies related to the association between the existence of code of ethics and individuals' ethical behaviour. While three studies reported non-significant or weak results (e.g., Akaah & Riordan, 1989), the majority (six studies) supported the notion that

the existence of corporate codes of ethics is positively related to individuals' ethical attitudes and behaviour (e.g., Ferrell & Skinner, 1988; Hegarty & Sims Jr., 1979). They concluded that the existence of codes of ethics is not sufficient by itself to impact the ethical behaviour of employees and a stronger impact of code of ethics on EDM may be achieved if its existence is accompanied by management enforcement procedures, such as rewards and sanctions for code adherence and violations (Ford & Richardson, 1994).

Consistent findings have been reported in the later review, Loe et al. (2000) reported an additional fourteen studies related to the effect of codes of ethics on EDM in organisations, and consistently, the majority (10 studies) has reported that code of ethics positively influence individuals' EDM process (e.g., Barnett, Cochran, & Taylor, 1993; McCabe, Trevino, & Butterfield, 1996), the remaining studies have reported that codes of ethics are not effective to enhance ethical behaviour in organisations (e.g., Bruce, 1994).

Out of the 20 findings reported by O'Fallon and Butterfield (2005) regarding the influence of organisational code of ethics on EDM stages, a majority (12 studies) was related to ethical behaviour component, and only eight studies were related to recognition, judgment, and intention components. A single study examined ethical recognition and reported significant positive association between presence of organisational code of ethics and ethical sensitivity (Weaver, Treviño, & Cochran, 1999). The majority (five studies) has examined the ethical judgment stage, while two studies reported positive results (e.g., Adams, Tashchian, & Shore, 2001), the remaining three provided non-significant results (e.g., Nwachukwu & Vitell, 1997). Two studies examined ethical intention and reported inconsistent results, while Paolillo and Vitell (2002) found that existence of code of ethics has no influence on ethical intention, Granitz (2003) has reported significant positive results.

A decline in the number of findings occurred from 2004 to 2011, while 8 findings have been reported by O'Fallon and Butterfield (2005), Craft (2013) has provided only five findings related to the association of code of ethics to EDM stages. Of the five findings,

three were related to ethical recognition and suggest no significant association between code of ethics and ethical recognition (e.g., Deshpande, 2009; Rottig, Koufteros, & Umphress, 2011). In a study of internal auditors, O'Leary and Stewart (2007) found that the existence of a strong code of ethics did not appear to assist respondents to act more ethically. The remaining two have examined ethical judgment and reported a positive influence of code of ethics on ethical judgment (e.g., McKinney, Emerson, & Neubert, 2010). For example, Pflugrath et al. (2007) concluded that the presence of code of ethics has a significant influence on individuals' ethical judgment.

Similar to the most recent review, few findings regarding the code of ethics association with EDM have been reviewed in this study. The current study review, as presented in Table 2.4, has added six more findings. A single finding related to ethical recognition suggested no significant association (Musbah et al., 2016), while two related to ethical judgment, and also suggested no significant relationship exists (Musbah et al., 2016; Rottig & Heischmidt, 2007). Three inconsistent findings were related to ethical intention, while, contrary to expectations, Pater and Van Gils (2003) found that the existence of code of ethics has a negative impact on ethical intention. Both Musbah et al. (2016) and Rottig and Heischmidt (2007) have found no significant influence of the existence of organisational code of ethics on ethical intention.

To summarise, despite its increasing prevalence among organisations around the globe, limited attention has been given to examine the influence of code of ethics on employees' EDM process (C. Chen et al., 2016; Kaptein & Schwartz, 2008), specifically in the accounting context (Martinov-Bennie & Pflugrath, 2009). Furthermore, there have been mixed findings reported. Although prior literature has reported significant findings, the majority of the studies reviewed by this study has supported the non-significant association. However, taken together the prior and the current review, it can be concluded that the majority of significant findings reported suggests that employees' EDM process is likely to be affected positively by the existence of an organisational code of ethics.

### 2.4.2.3 Organisational Ethical Climate and EDM Stages

An organisation's ethical context represents its overall perspective on business ethics. It is generally argued that organisational environment is powerful enough to influence individuals' ethical attitudes and behaviour (Wasieleski & Weber, 2001). Organisational ethical context has been the subject of many studies as influencing the ethical attitudes of individuals. For example, Vitell et al. (2003) found a positive impact of corporate ethical values on ethical intention of marketers. Marketing executives in organisations with strong corporate ethical values found to be less likely to choose unethical alternatives. Consistently, Valentine and Barnett (2007) reported that sales professionals' perceptions of organisational ethics (corporate code of ethics and ethical culture) were associated with their ethical judgment and intention. Strong audit firm's ethical culture was associated with reduced dysfunctional behaviours in a study of Swedish auditors (Svanberg & Öhman, 2013). Findings reported by business ethics studies generally suggest the importance of organisational ethical context in understanding individuals' ethical decisions (see for reviews: Craft, 2013; O'Fallon & Butterfield, 2005).

Conceptualisations of organisational ethical context are several (e.g., corporate ethical values, ethical culture, ethical climate). Business ethics researchers turn to organisational, sociological, philosophical, and psychological approaches to understand organisational ethical context. Two basic approaches are commonly adopted; the phenomenal approach and the ideational approach resulting in diverse constructs developed to represent the ethical context in organisations (Treviño, Butterfield, & McCabe, 1998). The phenomenal approach is "concerned with observable behaviours and artifacts" (Treviño et al., 1998, p. 451). According to this approach, organisational ethical context comprises primarily of formal (such as, organisational policies, authority structures) and informal (such as, peer behaviour, organisational norms) systems that acts as deterrents to unethical or dysfunctional behaviours (Trevino, 1990). On the other hand, the ideational approach, which is conceptual in nature, is concerned with the underlying shared norms, ethical meanings, symbols, and values within an organisation's culture. Organisational ethical

context is viewed in terms of the deeper structure of values and norms within organisations (Treviño et al., 1998). Trevino (1990) maintained that the ethical culture construct represents a phenomenal measure of ethical context in organisations. However, the ethical climate construct developed by Victor and Cullen (1987, 1988) focus on ideational conceptualisation of organisational ethical context (Shafer & Simmons, 2011a).

Although ethical culture construct has been empirically validated and tested as related to the likelihood of unethical or dysfunctional behaviours (e.g., Shafer & Simmons, 2011a; Shafer & Wang, 2011; Sweeney et al., 2010; Sweeney et al., 2013), an ideational construct of ethical context in audit firms was considered more appropriate for the current study. In general, audit profession is one of the highly regulated professions with heavy emphasis on following the code of professional conduct and standards for practice. Additionally, external audit practice put a relatively considerable emphasis on ideational constructs such as serving the public interest. Therefore, an ideational conceptualisation of audit firms' ethical context may be more useful in predicting external auditors' EDM. Its adoption may enhance our understanding of the influence of the organisational ethical context on EDM in general.

The ethical work climate has received significant attention from researchers (Martin & Cullen, 2006) and has been examined and validated by many academics as associated to many positive work outcomes including for example, higher organisational commitment (e.g., Cullen, Parboteeah, & Victor, 2003; Putranta & Kingshott, 2011; Shafer, 2009; Shafer et al., 2013a, 2013b), reduced organisational professional conflict (e.g., Shafer, 2009; Shafer et al., 2013b), individuals' perception of the importance of ethics and reduced earning management behaviours (Shafer, 2015), as well as employees' perception of social responsibility (Blome & Paulraj, 2013). Although Victor and Cullen (1987) argued that ethical climate as related to employees' ethical choices is the most important research question of ethical climate theory, a relatively limited research has been carried out concerning the effects of ethical climate on EDM stages (Martin &

Cullen, 2006). Furthermore, a relatively few studies have examined ethical climate in audit firms' context (e.g., Parboteeah et al., 2005; Shafer, 2008).

Victor and Cullen (1987, 1988) have developed the ethical climate construct. It represents "the prevailing perceptions of typical organisational practices and procedures that have ethical content", or "those aspects of work climate that determine what constitutes ethical behaviour at work" (Victor & Cullen, 1988, p. 101). Conceiving ethical climate as a multi-dimensional construct, Victor and Cullen (1987, 1988) draw upon theories of moral philosophies (e.g., teleology, egoism, and utilitarianism) and correspond to theories of moral psychology (Kohlberg, 1981), and developed their two-dimensional typology of ethical climate. They suggest that organisational ethical climate vary along two theoretical dimensions of ethical philosophy: the ethical criteria that guide decision making (egoism, benevolence, principle) and three loci of analysis that represent the referents of ethical choices and decisions (individual, local, and cosmopolitan).

The three levels of ethical criteria form the three basic organisational ethical climates. They represent the ethical considerations employed while reasoning organisational ethical situations. An egoist ethical criterion is based on moral philosophy of Egoism, which denotes that individuals' ethical choices may be made based on maximising individual interest and self-interest where the focus is on the self. Employees will reason ethical situations with an eye to maximising self-interest when they perceive egoistic climates in their organisations (Parboteeah et al., 2010). The "benevolence" ethical criterion derived from utilitarian moral philosophy, which implies that consequences of the moral act in question are to be generally considered while reasoning ethical situations. The focus is to maximise the collective interest. Finally, the "principle" ethical criterion is based on moral philosophy of deontology, which suggests that universal principles of right or wrong dominate the ethical reasoning process. Conformity with codes, rules, and regulations will guide individuals when reasoning ethical dilemmas.

Derived from sociological theories of roles and reference groups (Merton, 1968), the locus of analysis indicates the focal point of consideration when judging ethical actions (Victor & Cullen, 1988), it entails who or what is considered as being affected in an ethical situation (VanSandt, Shepard, & Zappe, 2006), three levels of locus of analysis were conceptualised; individual, local, and cosmopolitan. An individual locus of analysis entails that personal norms and/or interests are the main consideration of ethical reasoning. Organisational norms of individual ethical climates originate in the individual. At the Local locus of analysis, the principal referent groups are within the organisation, such as work group, ethical reasoning stems from the individual's immediate social context, such as work team or organisational department. At the cosmopolitan locus of analysis, ethical reasoning originates from outside the organisation, such as: rules and professional codes developed by professional associations.

The cross-section of the three levels of ethical criteria and the three loci of analysis forms a 3x3 matrix comprising nine theoretically ethical climate types, depicted in Figure 2.5. Organisational egoistic climates stress that interests of individuals (Egoistic/Individual), interests of the organisation, for example, organisational profitability (Egoistic/Local), or interests of people outside the organisation, such as customers (Egoistic/Cosmopolitan) are to be considered when confronting ethical dilemmas. It is generally suggested that egoistic climates increase the likelihood of unethical or dysfunctional behaviours (Victor & Cullen, 1987, 1988). Egoistic climates are likely to encourage unethical behaviour (Martin & Cullen, 2006; Shafer, 2008; Shafer et al., 2013b).

In Benevolent climates, concern is extended beyond the self to mutual or group interests while reasoning ethical situations. Benevolent/Individual emphasise that personal relationship, such as friendship is to be considered when making ethical choices. Benevolent/Local is concerned with the effects of ethical choices on groups inside the organisation (team interests). Benevolent/ Cosmopolitan climates stress the importance of interests of groups outside the organisation. Finally, principle climates are concerned with following rules and regulations while making ethical decisions. In the

Principle/Individual climates, the concern is on personal morality and rules, while at Principle/Local climates, the organisational rules and procedures guide ethical reasoning.

At Principle/Cosmopolitan, the rules and codes set by professional associations are to be followed while judging ethical actions. In contrast to egoistic climates, benevolent and principle climates are more likely to be correlated with ethical decisions. Climates such as Benevolent/Cosmopolitan that stress on social responsibility of the organisation are expected to be associated with ethical decisions. Similarly, climates that emphasising following professional codes of conduct is predicted to be related to ethical choices as promulgated by codes of conduct (Martin & Cullen, 2006; Shafer, 2008). In general, ethical climate typology dominated the ethical climate research by providing the basis for nearly 75% of all studies of ethical climate in organisations (Arnaud, 2010). In their recent review of organisational ethics research, McLeod, Payne, and Evert (2016) reported that ethical climate was adopted in 32% of all quantitative and mixed-methods studies reviewed.

Theoretically, Victor and Cullen (1987, 1988) maintained that not all nine climate types will exist in all organisations, the nine climate types conceptualised represents a range of potential ethical climate types. This has urged many researchers to conduct studies to validate and identify ethical climate types in different organisational contexts. Empirically, in a meta-analysis of ethical climate studies, Martin and Cullen (2006) conclude that not all nine climates emerged, with significant variation in ethical climates identified in diverse organisational contexts.

		Locus of Analysis		
		Individual	Local	Cosmopolitan
Ethical Criterion	Egoism	Self-interest	Company interest	Efficiency
	Benevolence	Friendship	Team Interest	Social responsibility
	Principle	Personal Morality	Company Rules and Procedures	Law and Professional Codes

## **Figure 2.5 Theoretical Ethical Climate Types**

Source: Victor and Cullen (1988, p. 104)

In this study, only four out of the nine types of ethical climate are examined within audit firms in Egyptian context. These four are Egoistic/Individual, Egoistic/Local, Benevolent/Cosmopolitan, and Principle/Cosmopolitan. For several reasons, these types have been selected; firstly, research has shown that local climates, such as firm's interest (Egoistic/local) have more functional and salient influence on employees' perception of ethical climates (Parboteeah et al., 2010). Thus, these climate types may be more indicative of the climates existing in audit firms.

Secondly, these climate types appear especially relevant to the study of external audit context; inherent emphasis on serving the public interest, and conformity with professional code of ethics in the external audit domain suggests that Benevolent/Cosmopolitan and Principled/Cosmopolitan climates are relatively more predictable to exist within audit firms. Similarly, it is generally argued that the pursuit of self-interest and the quest to enhance firm's profitability are among the primary threats to an auditor's objectivity and independence (Shafer et al., 2013b); this makes Egoistic/Individual and Egoistic/Local climates appear relatively more relevant to the external audit context. Therefore, it is expected to find these four types perceived in Egyptian audit firms. Shafer (2015) indicates that those climates represent the conflicting

pressures that all professionals may face, including external auditors.

Thirdly, to date, prior empirical studies that have applied Victor and Cullen (1987, 1988) ethical climate typology to conceptualise ethical context in audit firms, have consistently support the existence of these four types within audit firms' context as indicated in Figure 2.6. These four types are the most commonly found in audit firms. Fourthly, these types are widely investigated in several studies, especially in developed countries (Cullen et al., 2003; Parboteeah et al., 2010), with little attention given to investigate these types in developing countries such as Egypt. Examination of audit firms' ethical climates in developing cultural contexts may provide valuable findings to the international audit ethics research, given the observed influence of national culture on ethical climates in audit firms (Parboteeah et al., 2005). Therefore, those four types only of ethical climate were adopted in this study to measure the perceived ethical climate in Egyptian audit firms. Finally, although the examination of all ethical climate types may produce informative results, employing a relatively lengthy questionnaire to measure all variables of interest in this study hindered the employment of the full ethical climate questionnaire.

Findings related to the association of ethical climate types with EDM are not too many. Concerning the descriptive business ethics literature in general, no findings concerning the association of ethical climate types and EDM were reported by Ford and Richardson (1994). However, Loe et al. (2000) have reported four findings, with the majority (three findings) indicating a positive effect of ethical work climates on EDM (e.g., Verbeke, Ouwerkerk, & Peelen, 1996), a single finding supports no relation between ethical work climates and managers' ethical reasoning (Elm & Nichols, 1993).

### Figure 2.6 Climate Types Identified in Studies of Audit Firms

			Locus of Analys	sis
		Individual	Local	Cosmopolitan
Ethical Criterion	Egoism	Self-interest &Company interest (Instrumental Climate)* (Buchan, 2005; Cullen et al., 2003; Parboteeah et al., 2005; Shafer, 2008, 2009; Shafer et al., 2013a, 2013b)		<b>Efficiency</b> (Cullen et al., 2003)
	Benevolence	<b>Friendship</b> (Cullen et al., 2003)	<b>Team Interest</b> (Cullen et al., 2003; Parboteeah et al., 2005)	Social responsibility* (Cullen et al., 2003; Parboteeah et al., 2005; Shafer, 2008, 2009; Shafer et al., 2013a, 2013b)
	Principle	Personal Morality (Cullen et al., 2003; Shafer, 2008)	Company Rules and Procedures (Cullen et al., 2003)	Law and Professional Codes* (Cullen et al., 2003; Parboteeah et al., 2005; Shafer, 2008, 2009; Shafer et al., 2013a, 2013b)

Source: Adapted from Shafer (2015) and updated by the researcher

\*Climate types that are shaded in grey represent the climate types that are consistently found in audit firms and reported by the majority of studies.

A significant rise in studies examining the effect of ethical work climate on EDM stages was observed by O'Fallon and Butterfield (2005) who provided fifteen additional new findings. Of these, only one study was related to ethical recognition and revealed a negative relationship between egoistic climates and ethical recognition. However, it was found that benevolence and principle ethical climates were associated with higher ethical awareness (VanSandt, 2003). An additional four findings were reported regarding ethical judgment and they all suggest a positive influence of ethical climate on ethical judgment. While Upchurch (1998) concluded that benevolent climate is the predominant ethical climate in the EDM process, Weber and Seger (2002) asserted the predominance of instrumental climate types. Regarding ethical intention stage, three additional findings were reported by O'Fallon and Butterfield (2005), while DeConinck and Lewis (1997) revealed non-significant relationship between ethical climate and ethical intention, the other two studies support the association between them, for example, Flannery and May

(2000) found a negative association between instrumental climates (Egoistic/Individual, Egoistic/Local) and ethical intention. O'Fallon and Butterfield (2005) concluded that research generally supports the notion that organisational ethical climates and cultures have a significant influence on EDM. While negative association was found between egoistic climates and EDM, the relationship was in the positive direction regarding benevolent and principled climate types. Interestingly, a recent review conducted by Craft (2013) revealed only a new additional study that examined the effect of ethical climate types on EDM, the findings failed to reveal any significant relationship of ethical climate types with ethical reasoning ability of business managers (Forte, 2004).

However, the current study's review, as presented in Table 2.4, revealed an additional nine findings. Two findings were related to ethical recognition and suggest no or limited relationship of ethical climate types with ethical recognition (Musbah et al., 2016; VanSandt et al., 2006), and three studies regarding ethical judgment and reported no or few significant findings (e.g., Musbah et al., 2016; Shafer, 2008). Shafer (2015) has found that instrumental climates (Egoistic/Individual and Egoistic/Local) are associated with only operating earning manipulations and not accounting manipulations.

Regarding ethical intention, four inconsistent findings have been reported, that while three studies reported few or non-significant findings (Buchan, 2005; Musbah et al., 2016; Shafer, 2015), Shafer (2008) reported that Egoistic/Local climate is negatively and significantly related to ethical intention. He concluded that perceptions of climates that emphasise firm interests were more likely to be associated with intention to engage in ethically questionable actions. Furthermore, Benevolent/Cosmopolitan and Principled/Cosmopolitan climates are positively associated with intention to behave ethically.

In general, based on the literature discussed above, ethical climate types showed some significant relationship with EDM stages. Egoistic climates (Benevolent and Principled climates) are negatively (positively) related to EDM stages.

### 2.4.3 Moral Intensity and EDM Stages

It is generally argued that an individual may behave differently in dissimilar situations depending on the particular ethical issue he/she is encountering (Schwartz, 2016). While EDM models (Ferrell & Gresham, 1985; Hunt & Vitell, 1986; Trevino, 1986) have incorporated a wide variety of personal, organisational, and social/cultural variables that affect the EDM process, Jones (1991) criticises their implicit assumption that individuals react similarly to ethical issues regardless the differences that could exist among diverse ethical dilemmas. Whether the ethical issue involves a theft of some cheap stationary from the organisation or releasing a dangerous product to the market, these descriptive models assume that individuals will react in a similar manner (Jones, 1991).

Jones (1991) argued that EDM process is issue-contingent and the characteristics of the moral issue are certainly one of the factors that influence ethical decisions and behaviour. After synthesising the extant theoretical EDM models, and drawing upon Rest (1986) model of ethical action, Jones (1991) introduced his new construct of moral intensity that captures the characteristics of moral issues, and proposes their significant and direct influence on EDM stages. Based on theories of moral philosophy and social psychology, he moves beyond the commonly adopted models of EDM that focused on personal and contextual attributes, and developed his issue-contingent model of EDM in which moral intensity construct is posited to influence EDM stages.

Jones (1991) defined moral intensity as a construct the captures "the extent of issuerelated moral imperative in a situation" (Jones, 1991, p. 372). Based on commonly accepted moral principles promulgated by moral philosophies, he conceptualised moral intensity as a multi-dimensional construct that involves six dimensions that relate to the ethical issue in question rather than personal characteristics of the individual making an ethical decision or the organisational context surrounding the moral act in question. They are, magnitude of consequences, social consensus, probability of effect, concentration of effect, proximity, and temporal immediacy (see Table 2.1). An ethical issue may vary in the degree to which each of these six dimensions is exemplified in the ethical dilemma.

Table 2.1 With at Intensity Dimensions				
Magnitude of	The sum of the harms done to victims or aggregate benefits occurring to beneficiaries			
consequences	as a result of the moral act in question (Jones, 1991).			
Social Consensus	The extent to which the moral act in question is socially acceptable as evil or good			
	(Jones, 1991).			
Temporal	Represents the time span between length of time between the present and the onset of			
immediacy	ethical act's consequences (Jones, 1991).			
Probability of effect	It represents the joint function of the probability that the moral act in question will			
	actually take place and it will actually causes the harm or benefits expected (Jones,			
	1991).			
	It represents an inverse function of the number of people that are likely to be affected			
Concentration of	by the act in question, the larger the people affected by the act, the less is the			
effect	concentration of effect (Jones, 1991).			
Duranitati	The perceived nearness between the moral agent and victims of or beneficiaries from			
Proximity	the moral act in question (Jones, 1991).			

**Table 2.1 Moral Intensity Dimensions** 

Building on Rest's (1986) model of ethical action, and drawing upon theories and empirical research from a range of disciplines, Jones (1991) conceptualised moral intensity dimensions as independent variables and proposes that each dimension should significantly influence each of the four stages of EDM process; from recognition that an issue constitutes a moral dilemma to engaging in a particular action (Barnett, 2001). Jones (1991) argued that the intensity of the moral act must be explicitly examined in order to obtain a better understanding of the EDM process.

According to Jones (1991), an ethical action would be considered as being of more moral intensity, when it has serious and/or severe consequences, than when it has negligible negative outcomes (*Magnitude of consequences*), when there is a more societal consensus that the issue is wrong (*social consensus*), when it has serious consequences that will occur soon (*temporal immediacy*), when those affected by the decision are more proximate to the decision maker (*Proximity*), when the negative or severe outcomes is spread over a few individuals (*concentration of effect*), and when the expected negative consequences are relatively more likely to actually occur (*probability of effect*) (Barnett, 2001; Frey, 2000). An individual is more likely to recognise the ethical implications of an action, judges the action as less ethical, and establish more intention to behave ethically as the perceived total moral intensity of the ethical issue increases (Frey, 2000; Mencl & May, 2009). According to Jones (1991), an individual is less likely to engage in,

condone, or continue with ethically questionable action, when he/she perceived an ethical issue as more morally intense than when it is perceived as less morally intense. For example, stealing a piece of paper or pen from one's workplace may be considered less unethical by most people than the embezzlement of a large sum of money (Leitsch, 2006). Through strengthening sensitivity to attributes of an ethical situation, perceptions of moral intensity dimensions are expected to enhance EDM stages (Valentine & Bateman, 2011).

While Jones (1991) has originally conceptualised moral intensity construct as a multidimensional construct composed of six dimensions, he also suggests that dimensions of moral intensity could be aggregated into one construct. This urged several researchers to test for the dimensionality of the moral intensity construct, however, conclusive results have not yet been attained, and dimensionality of the moral intensity construct still reported as in its exploratory stage (Sweeney et al., 2013).

Inconsistent findings on whether moral intensity is single-dimensional (e.g., Valentine & Silver, 2001) or multi-dimensional (e.g., Yang & Wu, 2009) construct have been regularly reported. Initially, Jones (1991) conceptualises the six moral intensity dimensions, as relatively independent of each other, perceived value of one dimension is not related to the other. However, empirical research (e.g., McMahon & Harvey, 2006) has questioned this six-dimensional structure and argued that fewer dimensions could represent moral intensity and can be employed, rather than the original six-dimensional construct. Interestingly, Valentine and Bateman (2011) found that moral intensity could be represented by a single dimension that comprises magnitude of consequences, concentration of effect, temporal immediacy, and probability of effect.

Inconsistent factor structure of moral intensity has been found empirically. An initial attempt to test for moral intensity dimensionality was conducted by Singhapakdi, Vitell, et al. (1996) who found that moral intensity could be represented in two dimensions; one dimension labelled "perceived potential harm"; composed of the magnitude of

consequences, probability of effect, temporal immediacy, and concentration of effect components. While the other dimension has been labelled "perceived social pressure"; composed of the social consensus and proximity components. Yang and Wu (2009) have also reported this two-dimensional factor structure of moral intensity dimensions.

Two other studies (McMahon & Harvey, 2006; Vitell & Patwardhan, 2008), however, revealed that moral intensity construct could be represented in three dimensions; a single dimension labelled perceived potential harm composed of magnitude of consequences, probability of effect, temporal immediacy, and concentration of effect components, while social consensus, and proximity, each loaded as a single dimension. Most recently, Sweeney et al. (2013) have also reported three-dimensional solution for the moral intensity construct, however, different factor structure has been found. Firstly, a single factor labelled as "actual harm" including probability of effect, a single item to measure magnitude of consequences, and two items designed to capture temporal immediacy dimension. Secondly, three more items that was originally designed to measure magnitude of consequences was loaded as single dimension and labelled as "possible harm", and finally, three items designed to capture the social consensus dimension loaded as a single dimension and labelled as social consensus.

The current study tends to extend business ethics research with respect to testing for the dimensionality of the whole-six moral intensity dimensions and examining the impact of these dimensions on the first three EDM stages in an external audit context. Prior empirical studies have focused on few dimensions, magnitude of consequences and social consensus in particular, in different business disciplines, with limited attention given to examining these issues in auditing context and especially within developing countries (e.g., Johari et al., 2017; Sweeney et al., 2013). This study will add new empirical evidence related to first, the dimensionality of moral intensity construct in the auditing context, and secondly, the impact of these dimensions on external auditors' EDM stages, in a developing country, namely Egypt.

Regarding moral intensity relationship with EDM stages, many researchers have empirically examined Jones (1991) propositions with fairly consistent findings reported (e.g., May & Pauli, 2002; Singhapakdi, Vitell, et al., 1996; Yang & Wu, 2009). Early reviews of empirical business ethics research have reported very few results. While Ford and Richardson (1994) have failed to report any studies regarding moral intensity, influence of moral intensity dimensions on EDM process has been reported in only two studies (Robin, Reidenbach, & Forrest, 1996; Singhapakdi, Vitell, et al., 1996) reviewed by Loe et al. (2000).

A significant upturn in the number of studies between 1993 and 2003 was observed by O'Fallon and Butterfield (2005) who reported twenty-eight studies regarding moral intensity influence on the first three stages of EDM process. While six studies examined ethical recognition, only eight were related to ethical intention, with the majority (14 studies) examined the judgment component. The majority (5 studies) of the studies related to ethical recognition showed that moral intensity significantly affects ethical recognition (e.g., Butterfield et al., 2000; Singhapakdi, Vitell, & Franke, 1999; Singhapakdi, Vitell, et al., 1996). Limited support was found in the remaining study (Valentine & Fleischman, 2003). Not all moral intensity dimensions have been examined in these studies, some have operationalised all the moral intensity dimensions (e.g., Singhapakdi et al., 1999; Singhapakdi, Vitell, et al., 1996; Valentine & Fleischman, 2003), while some have examined only two (e.g., Butterfield et al., 2000) or four (e.g., Barnett & Valentine, 2004) dimensions. Magnitude of consequences and social consensus were consistently examined in all studies with inconsistent effects found, that while magnitude of consequences was found positively related to ethical recognition in five studies (e.g., Barnett & Valentine, 2004; Butterfield et al., 2000), Social consensus was found positively affect ethical recognition in only four studies (e.g., Barnett & Valentine, 2004; Singhapakdi et al., 1999). May and Pauli (2002) found that social consensus is not a significant predictor of ethical recognition. Probability of effect, and concentration of effect dimensions were found to be positively related to ethical recognition in three studies (e.g., May & Pauli, 2002; Singhapakdi et al., 1999). Temporal immediacy and

proximity dimensions, while been found as non-significant predictors of ethical recognition in one study (Barnett & Valentine, 2004), they were found significantly and positively related to ethical recognition in three studies (e.g., May & Pauli, 2002; Singhapakdi et al., 1999),

Regarding ethical Judgment, all the fourteen findings reported suggest that moral intensity significantly influence ethical judgment. Magnitude of consequences in relation to ethical judgment was examined in ten studies and relatively consistent findings have been reported. While significant and positive results was reported in nine studies, non-significant association was reported in the remaining study (Davis, Johnson, & Ohmer, 1998). Social consensus was reported as significant predictor of ethical judgment in eight studies, probability of effect was examined in two studies providing inconsistent findings, while Shafer et al. (2001) reported probability of effect as influencing ethical judgment, Carlson, Kacmar, and Wadsworth (2002) reported that probability of effect did not predict ethical judgment. Concentration of effect was examined in one study and reported as non-significant predictor of ethical judgment (Carlson et al., 2002). Temporal immediacy was examined in two studies and significant findings were reported in one study. Proximity was also examined in two studies, while Barnett and Valentine (2004) reported non-significant results, Carlson et al. (2002) reported that proximity significantly influences ethical judgment.

With respect to ethical intention stage, all eight studies revealed a significant positive impact of moral intensity dimensions on ethical intention. Magnitude of consequences was reported as positively influencing ethical intention or negatively affecting intention to engage in unethical actions in seven studies (e.g., Barnett & Valentine, 2004; Paolillo & Vitell, 2002; Shafer et al., 2001). While social consensus was positively related to ethical intention in four studies (e.g., Barnett, 2001; May & Pauli, 2002), it has no significant influence on ethical intention in one study (Barnett & Valentine, 2004). Probability of effect found to be of positive influence on ethical intention in four studies (Granitz, 2003; Paolillo & Vitell, 2002; Shafer et al., 2002; Shafer et al., 2002; Shafer et al., 2002; Shafer et al., 2001; Singhapakdi, Vitell, et al.,

1996). In all the four studies that operationalise concentration of effect, significant results were reported (e.g., Granitz, 2003; May & Pauli, 2002). While proximity provided significant results in four studies (e.g., Barnett, 2001; Singhapakdi, Vitell, et al., 1996), it has no significant influence on ethical intention in one study (Barnett & Valentine, 2004).

While temporal immediacy dimension was found to have no significant effect on ethical intention in one study (Barnett & Valentine, 2004), three studies operationalise it in a scale to measure all dimensions of moral intensity and found that all dimensions, including temporal immediacy, are related to ethical intention (e.g., Paolillo & Vitell, 2002; Singhapakdi, Vitell, et al., 1996). Generally speaking, O'Fallon and Butterfield (2005) concluded that moral intensity influence on EDM stages has found a strong support in the empirical literature. As magnitude of consequences and social consensus were found to be the dominant examined dimensions, they also called for more research on the other four dimensions of moral intensity. Mencl and May (2009) have also maintained that not all dimensions of moral intensity have been studied to the same extent as the original Jones' model described them.

More recently, Craft (2013) reported in her review inconsistent findings for ethical recognition, that while two studies have supported the positive relationship of moral intensity with ethical recognition (e.g., Leitsch, 2004; Valentine & Bateman, 2011), Leitsch (2006) found that moral intensity dimensions are not significant predictors of ethical recognition. Although these studies have operationalised all dimensions of moral intensity, different factor structures have been revealed. Leitsch (2004) maintained the original six-dimensional construct, and reported that while concentration of effect is not significantly related to ethical recognition, the other five dimensions are significantly related. However, Leitsch (2006) has reported moral intensity as having two-dimensions that is scenario specific, they are: perceived corporate concern, and perceived involvement effect. Valentine and Bateman (2011) reported moral intensity as one-dimensional construct composed of magnitude of consequences, probability of effect, concentration of effect, temporal immediacy.

Regarding ethical judgment, eight studies have been reported; moral intensity dimensions reported as having a positive significant effect on ethical judgment in seven studies (e.g., Karacaer, Gohar, Aygun, & Sayin, 2009; Leitsch, 2006; McMahon & Harvey, 2006). Nguyen et al. (2008) although reported that moral intensity affected ethical judgment in the positive direction, its effect failed to reach statistical significance. Magnitude of consequences was found to be significantly related to ethical judgment in three studies (Leitsch, 2006; McMahon & Harvey, 2007; Sweeney & Costello, 2009), while no significant impact has been reported in one study (Leitsch, 2004). Significant results concerning social consensus was reported in three studies (e.g., McMahon & Harvey, 2007) and temporal immediacy was reported in two studies as significantly influence ethical judgment (Sweeney & Costello, 2009). Probability of effect and concentration of effect, were reported as not influencing ethical judgment in one study (Carlson et al., 2009), while both dimensions were reported as influencing ethical judgment in two other studies (McMahon & Harvey, 2007; Sweeney & Costello, 2009). Interestingly, inconsistent findings was reported for proximity; while Carlson et al. (2009) found that proximity has a significant impact on ethical judgment, McMahon and Harvey (2007) reported no significant impact of proximity on ethical judgment, and Sweeney and Costello (2009) reported proximity as the weakest predictor of ethical judgment.

Four studies examined moral intensity dimensions in relation to ethical intention; all have reported that moral intensity dimensions significantly influence an individual's behavioural intentions in ethically challenging situations (e.g., Karacaer et al., 2009; Leitsch, 2004, 2006). Most recently reported was Valentine and Bateman (2011) who concluded that perceived moral intensity significantly influences ethical intention in a sales context. Interestingly, Shafer and Simmons (2011a), while examining organisational ethical culture in relation to tax practitioners' ethical intention, have found that rewards for unethical behaviour, and not ethical norms/incentives have a significant effect on behavioural intentions in a relatively low moral intensity situations.

In conclusion, prior research has consistently found that magnitude of consequences and social consensus are the most significant predictors of an individual's EDM (Mencl & May, 2009; Ng, White, Lee, & Moneta, 2009), however, findings reported concerning the other four dimensions in relation to EDM stages are mixed (Mencl & May, 2009). McMahon and Harvey (2007) concluded that out of the six moral intensity dimensions, social consensus was the most consistently found to be significantly influence ethical judgment followed by magnitude of consequences. Moreover, they called for further research on the effect of moral intensity on EDM stages.

The current study review, as presented in Table 2.4, has added fifteen studies that reported twenty-nine additional findings regarding the influence of moral intensity on EDM stages. Seven findings related to ethical recognition component, ten were related to ethical judgment, with the remaining twelve related to ethical intention. Regarding ethical recognition, the majority (five studies) found significant positive relationships between moral intensity dimensions and ethical recognition (e.g., Husser et al., 2017; Musbah et al., 2016; Yang & Wu, 2009). Non-significant relationship was reported in only one study (Svanberg, 2011). One study reported mixed findings; Valentine and Hollingworth (2012) found that magnitude of consequences and temporal immediacy dimensions are related to ethical recognition, while social consensus and proximity are not. Regarding ethical judgment, the majority (seven studies) provided significant results that moral intensity is related to ethical judgment (e.g., Bobek et al., 2015; Musbah et al., 2016; Sweeney et al., 2013), only two studies reported non-significant results (Johari et al., 2017; Svanberg, 2011), while mixed findings have been reported in the remaining study.

Ethical intention was examined in twelve studies; significant relationships were reported in most (8 studies) of the studies (e.g., Arnold et al., 2013; Musbah et al., 2016; Singh et al., 2007). While three studies reported non-significant effects (e.g., Valentine & Hollingworth, 2012), mixed findings reported in one study, Vitell and Patwardhan (2008) found that, with the exception of proximity, all dimensions of moral intensity significantly influence ethical intention. In general, Musbah et al. (2016) concluded that magnitude of consequences and social consensus are stronger predictors of EDM stages than temporal immediacy.

Overall, the discussion above on the effect of moral intensity on EDM stages seems to support the original propositions of Jones (1991) in his issue-contingent model of EDM. The majority of previous research suggests that moral intensity is positively related to EDM stages (McMahon & Harvey, 2007). Continued support exists in the most recent literature, and still very limited research has examined all components of moral intensity. Magnitude of consequences and social consensus continuing to be the most examined dimensions of moral intensity. Studies that examined the dimensionality of moral intensity are limited and reported inconsistent findings. Despite calls for examination of moral intensity dimensions in the accounting context (Cohen & Bennie, 2006), review of the recent studies revealed that these calls have received limited response from auditing scholars. Moral intensity dimensions in relation to auditor's EDM stages are to be examined in the current study. Dimensionality of moral intensity construct in the external audit context will be tested for as well.

### 2.5 Limitations of Previous Studies

The field of descriptive business ethics, the area of EDM specifically, is a growing area of inquiry in organisational and behavioural science. Ford and Richardson (1994) published the first review of empirical business EDM studies and reported only 62 studies, and to date, more than 500 empirical studies have been conducted in the area of business ethics in an attempt to illuminate factors underlying EDM process. The majority of these studies have been done with the aim to understand the process through which, the business professionals in general and external auditors in specific, reason their ethical actions.

A diverse mixture of variables has been investigated including: personal, organisational, and issue-specific variables, in diverse national and institutional contexts. However, based on the relevant reviews (Craft, 2013; Ford & Richardson, 1994; Loe et al., 2000;

O'Fallon & Butterfield, 2005) and the current study review, that revealed sixty-two studies, several limitations could be identified and numerous areas needs to be further explored. Some of these limitations have been addressed by previous reviews. However, several other limitations have been recognised after the current study has updated the relevant literature, and provided a comprehensive coverage of the EDM literature. In addition to the review of this study that revealed an additional 201 findings regarding general business EDM literature, several other reviews (Hall et al., 2005; Jones et al., 2003), including an accounting ethics literature review (Bampton & Cowton, 2013) have been also used to reveal the extant literature limitations that are discussed below:

Firstly, and mostly important limitation in the current literature is the extensive focus on one or two stages of EDM process, usually judgment and intention stages, with limited attention given to the ethical recognition and behaviour components. Collectively, O'Fallon and Butterfield (2005) and Craft (2013), as well as the current study review, reported more than 300 individual studies of EDM stages. Of those, only 23 studies (7.3%) have attempted to examine three stages of EDM (e.g., Musbah et al., 2016; Sweeney et al., 2013; Valentine & Hollingworth, 2012; Yang & Wu, 2009) focused upon in this study. O'Fallon and Butterfield (2005) and Craft (2013) have noted that not a single empirical study tested all four stages of EDM. Similarly, mirroring the general business ethical literature, studies conducted to examine external auditors' EDM stages have focused on one or two stages, in particular, ethical judgment and intention (e.g., Arnold et al., 2013; Shafer, 2008; Sweeney et al., 2013). In order to partially address these limitations, this study tends to examine the influence of a broad set of variables on three (rather than one or two) stages of EDM in the external auditing context.

Secondly, previous EDM research has largely focused on personal variables association with EDM process, personal variables comprises 77, 70, 58, and 58 % of findings reported by Craft (2013), O'Fallon and Butterfield (2005), Loe et al. (2000), and Ford and Richardson (1994), respectively. The trend of increased study of personal variables continued in the most recent studies, personal factors remain the most often studied

variables, comprising 147 out of 201 findings (around 74%) reported in the current study's review. Comparably, fewer findings (25 findings) reported for organisational variables (11%), and approximately 15% only related to moral intensity dimensions (29 findings). Organisational factors, however, comprises only 17% of the findings reported by Craft (2013) and 21, 37, 42% of the findings reported by O'Fallon and Butterfield (2005), Loe et al. (2000), and Ford and Richardson (1994) respectively. A steady decrease in findings related to organisational variables is clearly identifiable. Craft (2013) has called for more research on organisational factors and the role they play in EDM process, the ethical recognition in particular. For the narrower area of accounting and auditing ethics, research has largely focused on moral reasoning and ethical judgment of accounting and audit professionals (Bampton & Cowton, 2013), the majority of external audit ethics research has focused on personal variables, cognitive moral development in specific (e.g., Abdolmohammadi & Ariail, 2009; Abdolmohammadi et al., 2003). This study tends to fill these research gaps by considering and investigating, in addition to personal variables, three organisational variables, and six moral intensity dimensions in relation to external auditors' EDM stages.

Thirdly, of the numerous organisational variables introduced in the business ethics literature is the two different constructs of ethical climate and ethical culture. Despite the appealing arguments and suggestions regarding their influence on EDM stages, not too many studies have attempted their examination. Previous reviews (Craft, 2013; Ford & Richardson, 1994; Loe et al., 2000; O'Fallon & Butterfield, 2005) have collectively reported only 24 studies conducted since Victor and Cullen (1987) and Trevino (1990) have developed the constructs of ethical climate and ethical culture. O'Fallon and Butterfield (2005) have commented on this late start and paucity of research, and called for more research on these constructs in relation to EDM stages. However, the current study review revealed no more than only five studies, which indicate a limitation that need further exploration. Additionally, ethical judgment and intention components were the only stages examined in these studies. This study was, thus, designed to address these limitations by examining four types of ethical climate on the first three stages (rather than

only the judgment and intentions components) of external auditors' EDM process.

Fourthly, moral intensity dimensions in relation to EDM stages have received considerable attention in the EDM literature. The four previous reviews, collectively provided 54 findings related to moral intensity dimensions and the current study's review has added 29 additional findings. However, most of the research has examined only one or two dimensions; magnitude of consequences and social consensus in particular (Mencl & May, 2009; Ng et al., 2009). O'Fallon and Butterfield (2005) have called for more research on the other four dimensions of moral intensity. Generally, more research on moral intensity dimensions in relation to EDM stages has been one of the common themes called for by studies reviewed by Craft (2013). This has been also called for in the external audit context specifically (Cohen & Bennie, 2006; Sweeney et al., 2013). In an attempt to fill in these literature gaps, this study examined all of the six dimensions of moral intensity in relation to EDM stages of external auditors.

Fifthly, accompanying the extensive focus on only two dimensions of moral intensity, particularly, magnitude of consequences and social consensus, very few studies (e.g., Barnett, 2001; Singhapakdi, Vitell, et al., 1996; Svanberg, 2011; Sweeney & Costello, 2009) have tested for the dimensionality of moral intensity, it is still exploratory whether moral intensity is multi-dimensional, as originally conceptualised by Jones (1991), or uni-dimensional construct. To the best of the researcher's knowledge, no prior study has operationalised the six dimensions and tested for the dimensionality of the moral intensity construct in the external audit context. This study attempted to address these limitations by examining all moral intensity dimensions as multi-dimensional construct and tested for its dimensionality as well as examining its relation with external auditors' first three stages of EDM process using a relatively large sample of external auditors.

Sixthly, several reviewers and commentators on business ethics research (Campbell & Cowton, 2015; Craft, 2013; O'Fallon & Butterfield, 2005; Randall & Gibson, 1990) have criticised EDM research for the extensive use of student samples, and at some instances

use a combination between undergraduate students and graduate professionals. O'Fallon and Butterfield (2005) reported that 40% of empirical EDM studies used student samples or a combination of students and other individuals, and called for less use of student samples in business ethics research. In contrast to Campbell and Cowton (2015) arguments that fewer studies have been conducted using student samples, a later review of EDM research conducted by Craft (2013) identified a higher use of this sample type, in particular, 53% of the studies used students or professionals in a graduate program. Furthermore, the current study's review has reported 62 studies, out of which 24 studies (39%) used samples of undergraduate and/or graduate students. Randall and Gibson (1990) argued that student samples are appropriate if they comprise the population of interest. Indeed, students are highly appropriate subjects in the case of business ethics education research (Campbell & Cowton, 2015), however, an extensive use of students as proxies of business managers scrutinises the contribution of EDM research to the development of business ethics. In a recent meta-analysis of ethical judgment research, student samples systematically produce greater effect sizes than non-student samples (Pan & Sparks, 2012), an issue that raise significant concerns regarding the use of student samples to inform business ethics literature. This study tends to address this limitation by employing a relatively large sample of professional external auditors working for audit firms in Egypt to examine factors underlying their EDM process.

Seventhly, although several studies have been conducted in the business ethics literature to examine a wide range of personal variables in association with EDM stages (Craft, 2013). Among all personal variables examined, however, PC has received very scant attention regarding its influence on EDM stages. While three prior reviews (Craft, 2013; Ford & Richardson, 1994; Loe et al., 2000) have failed to report any studies regarding PC association with EDM stages, O'Fallon and Butterfield (2005) have reported a single study that examined PC in relation to ethical recognition (Yetmar & Eastman, 2000). Within the narrower accounting ethics context, calls have been made to investigate the influence of PC on accountant's ethical attitudes and behaviour in general and external auditors' EDM in particular (Hall et al., 2005; Smith & Hall, 2008). In their review of PC

research in the accounting context, Hall et al. (2005) reported only five studies that have examined accountants' PC in relation to ethical attitudes and behaviour (Jeffrey & Weatherholt, 1996; Jeffrey et al., 1996; Kaplan & Whitecotton, 2001; Lord & DeZoort, 2001; Shaub et al., 1993). Recently, the review of this study has added only three studies (Elias, 2006; Shafer et al., 2016; Taylor & Curtis, 2010). Moreover, these attempts have conceptualised and operationalised PC as a single-dimensional construct (Aranya et al., 1981), which later appeared to represent only the affective dimension of PC (Smith & Hall, 2008). Conceptualising multidimensional constructs as one-dimensional could threaten the validity of the study's results (Bagozzi, 1982). This study tends to contribute to general business ethics literature, as well as audit EDM research in particular, by investigating the relationship of PC as a multi-dimensional construct (Meyer et al., 1993) and three stages of external auditors EDM process, ethical recognition, judgment, and intention.

Eighthly, several researchers have called for research on EDM issues in non-western context. Because of the increasing expansion of multinational corporations, business practices become more and more globalised, and thus, a study of EDM in non-western cultural/environmental contexts become more pervasive. Additionally, several authors have suggested the influence of nationality and cultural dimensions on EDM process (e.g., Curtis et al., 2012; Husted & Allen, 2008; Singh et al., 2007; Vitell et al., 2003). However, most of the studies of EDM have been conducted in western and developed countries, mostly in the U.S. Non-western and less developed countries were underrepresented in the EDM literature (Craft, 2013). The current study reviews 62 studies, of which 16 studies conducted in only the U.S. and 40 studies conducted in developed countries (including the U.S.). Only eight studies have been carried out in less developed countries, with only two studies conducted in Middle-Eastern contexts such as, Libya, Egypt, and Jordan. Moreover, in the external audit context, most of the ethics research has been conducted in developed contexts. To the best of the researcher's knowledge, no prior research has examined external auditors' EDM process in a Middle-Eastern country. Although this study is not to investigate the influence of cultural dimensions on EDM, conducting EDM research in developing countries may partially fill these limitations by enhancing our understanding of business ethics in developing countries, such as Egypt.

Ninthly, the extensive use of scenarios in EDM literature is well documented (Craft, 2013; O'Fallon & Butterfield, 2005; Oumlil & Balloun, 2009), it is generally recommended that the use of pre-developed context-based ethical scenarios helps to ensure that they captured ethical dilemmas pertinent to the current research context as well as enables direct comparison of results (Cohen & Bennie, 2006). However, Bampton and Cowton (2013) have noted that a significant percentage of accounting ethics studies (around 25%) used the general social context Defining Issue Test (DIT) developed by Rest (1986) to measure accountants' and auditors' moral judgment (e.g., Abdolmohammadi & Ariail, 2009; Abdolmohammadi, Fedorowicz, & Davis, 2009; Abdolmohammadi et al., 2003), which include scenarios related to the general social context. Calls for including more accounting-based scenarios targeted at the appropriate research subjects have been made (Bampton & Cowton, 2013). Thus, this study tends to address this limitation by using four pretested external audit ethics scenarios to measure moral intensity dimensions and external auditors' EDM stages.

Finally, with the extensive use of quantitative methodologies in business ethics research, earlier reviews have criticised business EDM research for the lack of theoretical background needed to develop testable hypotheses. Randall and Gibson (1990) and Weber (1992) have found that only 25%, and 19% of business ethics research have stated a testable hypotheses. Similarly, recent reviews (Campbell & Cowton, 2015; Craft, 2013; O'Fallon & Butterfield, 2005) have noted the lack of theoretical framework in the majority of recent business ethics work. They have called for an increase need for theory development in future empirical research. This was slightly higher in the narrower area of accounting ethics research. In their review of the accounting ethics research, Bampton and Cowton (2013) have noted that only 32% of studies have used hypotheses for testing theories. This study attempted to address these limitations by employing several

theoretical models to develop hypotheses to be tested in the Egyptian external audit context. Among other variables, Four ethical climate types developed by Victor and Cullen (1988), Meyer et al. (1993) multi-dimensional conceptualisation of PC, and moral intensity dimensions conceptualised in Jones' (1991) issue-contingent model of EDM are to be tested in the current study.

## 2.6 The Research Model and Hypotheses

Based on the systematic literature review presented and discussed in this chapter, and the theoretical underpinnings presented by the prominent models of EDM (Ferrell & Gresham, 1985; Hunt & Vitell, 1986, 2006; Jones, 1991; Kohlberg, 1981; Rest, 1986; Trevino, 1986), the theoretical framework of this study was built. EDM stages are commonly viewed as the outcome variables; personal variables, organisational variables and moral intensity dimensions are widely investigated as the predictors of EDM stages.

The current research investigates the first three stages of Rest (1986) model (Recognition, Judgment, and Intention), which serves as a theoretical foundation of the current study. Due to inherent difficulties of measuring or observing ethical behaviour, the current investigation has been limited to the first three stages only. Eight personal variables were hypothesised to influence EDM stages (age, gender, position level, educational level, work experience, certification status, personal moral philosophy, professional commitment), three organisational variables (Organisational size, code of ethics, ethical climate) and the whole six dimensions of moral intensity (Magnitude of consequences, social consensus, temporal immediacy, probability of effect, concentration of effect, and proximity). The theoretical framework depicted in Figure 2.7 as well as the associated hypotheses presented in Table 2.2 are shown below.

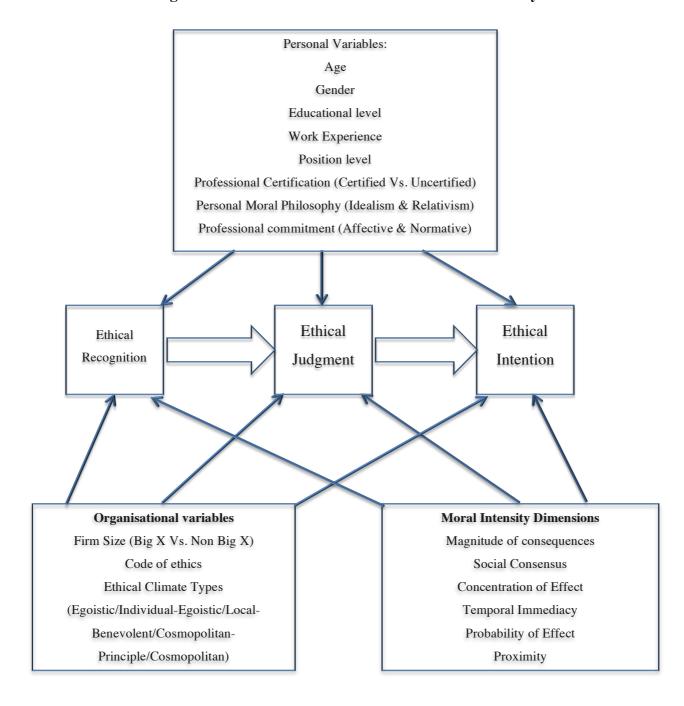


Figure 2.7 Theoretical Framework of the Current Study

No.	Hypotheses
H1a	Mean Ethical Recognition Scores will be significantly different between males and females
H1b	Mean Ethical Judgment Scores will be significantly different between males and females
H1c	Mean Ethical Intention Scores will be significantly different between males and females
H2a	Mean Ethical Recognition Scores will significantly increase as age increases
H2b	Mean Ethical Judgment Scores will significantly increase as age increases
H2c	Mean Ethical Intention Scores will significantly increase as age increases
H3a	Mean Ethical Recognition Scores of auditors at higher position levels will be significantly higher than auditors at lower levels.
H3b	Mean Ethical Judgment Scores of auditors at higher position levels will be significantly higher than auditors at lower levels.
H3c	Mean Ethical Intention Scores of auditors at higher position levels will be significantly higher than auditors at lower levels.
H4a	Mean Ethical Recognition Scores will significantly increase as educational level increases
H4b	Mean Ethical Judgment Scores will significantly increase as educational level increases
H4c	Mean Ethical Intention Scores will significantly increase as educational level increases
H5a	Mean Ethical Recognition Scores of certified auditors will be significantly higher than those uncertified
H5b	Mean Ethical Judgment Scores of certified auditors will be significantly higher than those uncertified
H5c	Mean Ethical Intention Scores of certified auditors will be significantly higher than those uncertified
H6a	Mean Ethical Recognition Scores will significantly increase as Years of Experience increases
H6b	Mean Ethical Judgment Scores will significantly increase as Years of Experience increases
H6c	Mean Ethical Intention Scores will significantly increase as Years of Experience increases
H7a	Mean Ethical Recognition Scores of those works in Big X Firms will be significantly higher than those who works for smaller firms
H7b	Mean Ethical Judgment Scores of those works in Big X Firms will be significantly higher than those who works for smaller firms
H7c	Mean Ethical Intention Scores of those works in Big X Firms will be significantly higher than those who works for smaller firms
H8a	Mean Ethical Recognition Scores will be significantly higher for those works in firms with code of ethics.
H8b	Mean Ethical Judgment Scores will be significantly higher for those works in firms with code of ethics.
H8c	Mean Ethical Intention Scores will be significantly higher for those works in firms with code of ethics.
H9a1	Moral Idealism Has a Significant Positive Relationship with Ethical Recognition
H9a2	Moral Relativism Has a Significant Negative Relationship with Ethical Recognition
H9b1	Moral Idealism Has a Significant Positive Relationship with Ethical Judgment
H9b2	Moral Relativism Has a Significant Negative Relationship with Ethical Judgment
H9c1	Moral Idealism Has a Significant Positive Relationship with Ethical Intention
H9c2	Moral Relativism Has a Significant Negative Relationship with Ethical Intention
H10a	Professional Commitment Has a Significant Positive Relationship with Ethical Recognition
H10b	Professional Commitment Has a Significant Positive Relationship with Ethical Judgment
H10c	Professional commitment Has a Significant Positive Relationship with Ethical Intention

# Table 2.2 Hypotheses of the Study

No.	Hypotheses
H11a1	Egoistic Ethical Climates Has a Significant Negative Relationship with Ethical Recognition
H11a2	Benevolent Ethical Climates Has a Significant Positive Relationship with Ethical Recognition
H11a3	Principled Ethical Climates Has a Significant Positive Relationship with Ethical Recognition
H11b1	Egoistic Ethical Climates Has a Significant Negative Relationship with Ethical Judgment
H11b2	Benevolent Ethical Climates has a Significant Positive relationship with Ethical Judgment
H11b3	Principled Ethical Climates Has a Significant Positive Relationship with Ethical Judgment
H11c1	Egoistic Ethical Climates Has a Significant Negative Relationship with Ethical Intention
H11c2	Principled Ethical Climates Has a Significant Positive Relationship with Ethical Intention
H11c3	Benevolent Ethical Climates Has a Significant Positive Relationship with Ethical Intention
H12a	Moral Intensity Has a Significant Positive Relationship with Ethical Recognition
H12b	Moral Intensity Has a Significant Positive Relationship with Ethical Judgment
H12c	Moral Intensity Has a Significant Positive Relationship with Ethical Intention

 Table 2.3 Summary of the Current Study's Review 2011-2017

	Number of empirical findings by EDM stage examined*								
Independent variables	Recognition	Judgment	Intention	EDM	Total				
Personal variables:									
Age	6	16	12		34				
Gender	8	25	16	3	52				
Educational level	1	7	4		12				
Position level	1	7	3	2	13				
Professional certification		2	1		3				
Work experience	2	7	6		15				
Personal moral philosophy	2	6	5		13				
Professional commitment		2	3		5				
Organisational variables:									
Ethical climate	2	3	4		9				
Organisational size	2	6	2		10				
Code of ethics	1	2	3		6				
Moral intensity	7	10	12		29				
Total	32	93	71	5	201				

\* Total indicates the number of individual findings by independent variables. The number of studies reviewed was 62

## 2.7 Summary and Conclusion

This chapter aimed at providing a review of the literature regarding the EDM process in the business area in general. Literature related to personal, organisational variables and moral intensity dimensions examined in this study in relation to EDM stages has been discussed. Although ample studies have been conducted, several limitations have been highlighted including for example, heavy focus on one or two stages of EDM process, continued attention to examine a few single variables (age, gender) rather than a broad set of variables, as well as very limited focus on some other variables that may have significant influence on EDM stages (e.g., professional commitment).

Furthermore, inconclusive findings, or in some cases conflicting findings, have been reported within the literature regarding the association of some personal variables with the EDM stages. For example, the literature has not yet provided conclusive results regarding age and EDM relationship. Moreover, the association of position level with EDM has shown conflicting findings; that while the wider business ethics literature suggests a positive association, external audit ethics research in specific suggests the opposite. Additionally, some organisational variables have continued to show mixed results, for example, inconsistent findings have been reported regarding organisational size influence on EDM stages. The methodology of the current research is discussed in the next chapter.

Authors & Year	Independent(s)	EDM* Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Abdolmohammadi et al., 2003)	Gender	EJ*, (DIT)*	90 new auditors (U.S.)	Quest*, 5 SCEN* (DIT)*	Male auditors' P-score is not significantly different from female auditors	T-test
(Pater & Van Gils, 2003)	Code of ethics	EI*	128 Management consultants (Netherlands)	Quest., 4 SCEN	The presence of an ethical code in the organisation is significantly associated with less ethical intention	Regression
(Barnett & Valentine, 2004)	Age, gender	ER*, EJ, EI	273 Marketing professionals (U.S.)	Quest., 2 SCEN.	Age and gender had no association with ER, EJ, EI	Correlations, T-Test, Regressions
(Conroy & Emerson, 2004)	Age, gender	ER	850 Students (U.S.)	Quest, 25 SCEN.	While gender is significantly related to ER in 19 of 25 scenarios, older respondents are more ethically sensitive in only 11 scenarios.	Correlations
(Leonard et al., 2004)	Age, gender	EI	423 IT students (U.S.)	Quest, 5 SCEN	Age and gender are significantly related to EI in 4 of 5 scenarios.	Regression
(Marta et al., 2004)	Age	EI	134 Marketing Professionals (K.S.A, Egypt, Jordan)	Quest, 2 SCEN.	Could not conclude if age is associated with EI, Age significantly related to EI in only 1 of 2 scenarios.	Correlation, Regression
(Nill, Schibrowsky, & Peltier, 2004)	Age, gender	EI	156 students in Europe and U.S.	Quest, 2 SCEN	Female students exhibited more EI than males. In only one scenario, older students show more EI than younger students	Descriptive, non- parametric tests
(Roxas & Stoneback, 2004)	Gender	EJ	750 Accounting students from 8 European, Asian, American countries	Quest., 1 SCEN	Females' judgments were more ethical than males	T-test & Correlations
(Buchan, 2005)	Ethical Climate* Instrumental Climate (EI, EL) *	EI	95 CPAs (U.S.)	2 versions Quest., 4 SCEN, 2 per version	Instrumental climate negatively associated with EI, however, these findings lacks significance.	Factor Analysis Correlation Regression
				127		

Table 2.4 Em	nirical Studies	Reviewed by	the Current Study
1 adic 2.7 L'in	ph ical Studies	I I I I I I I I I I I I I I I I I I I	inc Current Study

Authors & Year	Independent(s)	EDM* Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Nill & Schibrowsky, 2005)	Age, Gender, Educational level, work Experience, Moral Intensity	EI	210 Marketing students (Germany and U.S.)	Quest., 1 SCEN	Moral intensity is significantly related to EI Age, gender, educational level, and experience are not significantly associated with EI	Regression
(Simga-Mugan et al., 2005)	Gender	ER	171 professionals (Turkey & U.S.)	Quest., 16 SCEN.	Females exhibited higher ER than males in all scenarios	MANOVA & T-test
(Cagle & Baucus, 2006)	Age, Gender, Educational Level	EJ	54 undergraduate & 32 graduate students (U.S.)	Quest., 10 SCEN.	Females shows more ethical judgments than males in 5 of 10 scenarios In only 2 of 10 scenarios, educational level is positively related to EJ Significant differences were found in EJ as based on age	Regression
(Cohen & Bennie, 2006)	Moral intensity (MC, SC, PE, CE, TI, PX) *	ER, EJ, EI	37 audit partners & Managers (U.S.)	Quest., 3 SCEN.	All of the six moral intensity dimensions were considered important at each stage of EDM MC is the most important factor, followed by SC and PE TI was the least important factor.	Descriptive, Pairwise comparisons
(Elias, 2006)	Professional Commitment	EJ, EI	128 Accounting students (U.S)	Quest., 8 SCEN	Professional commitment is significantly and positively related to EJ and EI in 5 and 6 of 8 scenarios respectively	ANOVA
(Ritter, 2006)	Gender	ER	124 business students (U.S.)	Quest., 15 SCEN.	Females are more ethically sensitive than males	Correlations, ANOVA
(VanSandt et al., 2006)	Ethical Climate	ER	194 workers of seven different organisations (U.S.)	Video Clip Quest.	Ethical work climate found to be a primary predictor of individual moral awareness.	Factor analysis Discriminant Analysis ANOVA
(Haines & Leonard, 2007a)	Gender	EJ, EI	167 IT students (U.S.)	Quest., 5 SCEN	Significant differences were found between both genders in both EJ and EI Females were more ethical than males	T-tests
(McMahon & Harvey, 2007)	Age	EJ	345 Students (U.S)	Quest., 3 SCEN	Age is not significantly related to EJ	ANOVA
(Rottig & Heischmidt, 2007)	Code of ethics	EJ, EI	86 graduate students (Germany & U.S.)	Quest., 1 SCEN	No significant association found between the existence of code of ethics and EJ or EI	MANCOVA T-test

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Singh et al., 2007)	Personal moral philosophy Moral intensity (MC, SC, PE, CE, TI, PX)	EJ, EI	372 marketing managers (U.S. & China)	Quest., 4 SCEN.,	Limited support for the impact of personal moral philosophy on both EJ and EI, each in only 1 of 4 scenarios Moral intensity significantly affects EJ and EI	Correlations Regressions
(Stedham, Yamamura, & Beekun, 2007)	Gender	EJ, EI	44 business students (Germany)	Quest., 3 SCEN	Females judged scenarios more ethically than males and shows more intention to act ethically	ANOVA
(Westerman et al., 2007)	Gender	EI	165 students (Germany, Italy, Japan)	Quest., 3 SCEN	Females exhibited more ethical intention than males	ANOVA
(Guffey & McCartney, 2008)	Age, gender, educational level	EJ	397 accounting students (U.S.)	Quest., 2 SCEN	In both scenarios, females have higher EJ scores than males Age, level of education is not significantly related to EJ	T-test Regression
(Lund, 2008)	Gender	EJ	360 Marketers (U.S.)	Quest., 20 Items	Females marketers exhibited significantly higher EJ than males	T-test
(Nguyen et al., 2008)	Age	EJ	340 students (U.S.)	Quest., 3 SCEN	Age is not significantly related to EJ	ANCOVA
(Shafer, 2008)	Gender, ethical climate types (EL, BC, PC)* Personal moral* philosophy (ID & RE)* Position level Professional certification status	EJ, EI <sup>1</sup>	128 external auditors for local & international audit firms (China)	Quest., 3 SCEN.	Only Egoistic/local climate type significantly affect auditors' relativism EJ 3 (EL, BC, PC) of 4 types of Ethical Climate significantly affect EI, but not EJ Personal moral philosophy and gender are not significant predictors of EJ or EI Position level has no significant effect on EJ or EI Seniors exhibited less EI than managers Certification status was unrelated to EJ or EI	Factor Analysis Regression
(Stedham, Yamamura, & Lai, 2008)	Age, Gender	EJ	176 students (Japan & Taiwan)	Quest., 3 SCEN	Gender is not significantly associated with EJ Age is significantly related to EJ	MANCOVA ANCOVA

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Vitell & Patwardhan, 2008)	Personal Moral philosophy Moral intensity (MC, SC, PE, CE, TI, PX)	EI	379 Marketers (U.K, Spain-EU sample, & China)	Quest., 4 SCEN	Limited significant effects of personal moral philosophy in only 2 of 4 scenarios MC, PE, CE, TI Loaded as single dimension called perceived harm and appeared to be the most significant predictor of EI in both samples SC is significantly related to EI in two Scenarios in both samples PX is not significant in any of the scenarios for both samples.	Regression
(Abdolmohammadi & Ariail, 2009)	Gender, Educational level, Position Level	EJ (DIT)	273 CPAs, 114 in industry practice & 159 in public practice (U.S.)	Quest., 5 SCEN. (DIT)	Gender, and position level is not significantly related to EJ Educational level impacts positively EJ	OLS Regression
(Bampton & Maclagan, 2009)	Gender	EJ	98 accounting students (UK)	Quest., 5 SCEN	Significant differences between men and woman in 4 of 5 scenarios	Chi-square
(Sidani et al., 2009)	Age, gender	ER	214 workers (Lebanon)	Quest., 18 Statements	Females were more ethically sensitive than male in 12 of 18 situations, significant gender differences found in only 4 of 18 situations Older workers are significantly more ethically sensitive than younger workers in 6 of 18 statements	T-test ANOVA
(Seshadri & Broekemier, 2009)	Gender	EI	1328 students (Panama & U.S.)	Quest., 8 SCEN	Genders significantly associated with EI	ANOVA
(Yang & Wu, 2009)	Moral Intensity (MC, SC, CE, PX, PE, TI)	ER, EJ, EI	233 accounting students (China)	Quest., 4 SCEN	Factor analysis reveals two dimensions of moral intensity: potential harm & social pressure Except for social pressure dimension that lacks a significant support as predictor of EJ in only 1 of 4 scenarios, for all scenarios, Moral intensity dimensions are significantly related to ER, EJ, and EI	Correlation Regression
				120		

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Conroy et al., 2010)	Age, Gender, position level, educational level	EJ	195 public accountants (U.S.)	Quest., 30 SCEN (statements)	Females were less accepting of ethically questionable actions in 10 of 30 scenarios than were males Older age is associated with lower levels of unethical actions acceptability unethical action in 16 of 30 scenarios Limited and inconsistent differences were found based on position level Educational level is positively related to acceptance of questionable action in 3 of 30 scenarios	Ordered- probit analysis
(Bateman & Valentine, 2010)	Age, Gender, work Experience, educational level	EI	283 undergraduate and graduate students (U.S.)	Quest., 4 SCEN	Experience predicts EI in 3 of 4 scenarios and education in 2 of 4, both with varied significance Age has a significant positive impact on EI in 1 of 4 scenarios Gender significantly associated with EI in 3 of 4 scenarios Females showed significantly higher ethical intention than males in 3 of 4 scenarios	Factor Analysis MANCOVA ANCOVA Correlation
(Pierce & Sweeney, 2010)	Age, Gender	EJ, EI	463 audit trainees (Ireland)	Quest., 4 SCEN	While age is positively related to EI, it has no significant impact on EJ Gender impacts EJ and EI, each in 1 of 4 scenarios	ANOVA T-Test
(Sweeney et al., 2010)	Age, work Experience, Firms sizeª	EJ, EI	463 pre-manager level auditors (Ireland) and 117 external auditors (U.S.)	Quest., 4 SCEN	Age was significantly related to EJ in 1 of 4 scenarios and significantly negatively related to engage in unethical behaviours in only one scenario Length of experience has no significant impact on EJ In 2 of 4 scenarios experience significantly influence intention to behave unethically Firm size is not a significant predictor of EJ for all scenarios.	Regression

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Taylor & Curtis, 2010)	Professional Commitment (one- dimensional)	EI	120 audit seniors (U.S.)	Quest., 3 SCEN	PC is positively associated with auditors' reporting intention of unethical behaviours	MANCOVA ANCOVA
(Dalton & Ortegren, 2011)	Gender	EDM	196 undergraduate business students (U.S.)	Quest., 30 SCEN.	T-test reveals that females respond more ethically than males in 27 of 30 scenarios MANOVA results suggest that females significantly report more ethical responses across 30 scenarios	Descriptive, Correlation, T-test, MANOVA
(Svanberg, 2011)	Moral intensity dimensions (MC, SC, CE, PX, PE, TI)	ER, EJ, EI	100 accounting consultants (Sweden)	Quest, 1 SCEN	No significant relationship was found for the moral intensity with ER, EJ, and EI, either Moral intensity is represented as Two-dimensional construct developed by the authors or as six-dimensional construct as originally developed by Jones (1991).	Factor analysis Regression
(Shafer & Wang, 2011)	Gender, Professional Certification	EJ	89 professional accountants (China)	Quest., 13 SCEN	Interestingly, Males are more ethical than females Certified accountants were more likely to judge earning management as unethical that uncertified accountants	ANOVA Correlation
(Yamamura & Stedham, 2011)	Age, Gender	EJ	100 postgraduate business students (Japan)	Quest, 3 SCEN	Older respondents exhibited more EJ than younger respondents No gender differences in EJ	MANCOVA, ANCOVA
(Curtis et al., 2012)	Age, gender	EI	Accounting students from 4 countries, 115 (China), 91 (Japan), 121 (Mexico), and 201 (U.S.)	Quest., 2 SCEN	Females in all countries indicated higher EI than males, significance were found in 2 countries, U.S and Mexico in scenario 1 Age was positively related to EI in both scenarios	Correlation MANCOVA ANCOVA
(Valentine & Hollingworth, 2012)	Moral Intensity (MC, SC, PX, TI)	ER, EJ, EI	187 business professionals from all business functional areas (U.S.)	Quest., 2 SCEN	Only MC and TI was positively related to ER, each in 1 of 2 scenarios MC and SC was positively related to EJ in both scenarios Moral intensity dimensions are not related to EI	Correlation, Regression
(Woodbine et al., 2012)	Personal moral philosophy (ID, RE)	EJ	612 CPAs (China)	Quest., 1 SCEN	While ID is positively related to EJ, REL is negatively related to EJ	T-Test Regression

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Walker et al., 2012)	Age, gender	EJ	220 individuals randomly sampled from an online StudyResponse database (U.S.)	Quest., 29 SCEN	Females were less accepting of ethically questionable scenarios than were males Older participants were less accepting questionable action than were younger participants	Correlation, Regression
(Arnold et al., 2013)	Moral intensity (MC, SC)	EI	103 external auditors & 43 internal auditors (U.S.)	Quest., 5 SCEN	For all groups of auditors, Both MC & SC is a significant predictor of EI	Factor Analysis, SEM
(Kuntz et al., 2013)	Age, gender, position level	ER	309 online participants (Russia & New Zealand)	Quest., 1 SCEN	Age, and gender are not significant predictors of ER, while holding a managerial position is associated with lower likelihood of recognising an ethical dilemma	Regressions
(Sweeney et al., 2013)	Moral Intensity (MC, SC, PE, TI)	EJ, EI	580 Accounting practitioners (U.S. & Ireland)	Quest., 3 SCEN	Moral intensity dimensions are significant positively related to EJ and EI	Factor analysis, SEM
(Chen, 2014a)	Position level	EDM	26,369 respondents of the WVS 2005-2008 wave from 30 nations	Quest,4 SCEN (Items)	Workers are more likely to be unethical than managers	Correlations, Hierarchical Linear Modeling
(Chen, 2014b)	Position level, gender	EDM	26,369 respondents of the WVS 2005-2008 wave from 30 nations	Quest., 4 SCEN (items)	Males are more likely than females to justify ethically suspect behaviours Both genders in higher job positions tend to be more unethical than people in lower job positions	Correlations, Hierarchical Linear Modeling
(Doyle et al., 2014)	Age, gender, position level, educational level, work experience, Organisational size	EJ (DIT)	74 tax practitioners (Ireland)	Quest., 2 SCEN., one from DIT and the other is tax- context scenario	All personal variables are non-significant predictors of EJ within both, social and Tax contexts, For both contexts, Firm size is not associated with EJ	Regression

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Bobek et al., 2015)	Gender, Firm Size, personal Moral Philosophy (ID&RE) Moral Intensity MC, SC	EJ, EI	134 accounting professionals from seven audit firms (U.S.)	Quest., 2 SCEN	Females showed more EJ than males. Gender and EI are not related. Firms size is significantly & positively related to EJ & EI While ID is not significantly related to EJ nor EI, REL is negatively related to EJ, EI MC, SC are positively related to EJ & EI	Correlations, ANCOVA
(Clouse et al., 2015)	Gender, position level, Personal moral philosophy (ID& RE)	EJ	362 from a research panel of online participants (U.S.)	Quest., 11 SCEN	Gender, and position level were not significant predictors of EJ Personal moral philosophy revealed significant results	Correlations, Regression
(Shafer, 2015)	Age, gender position level, work experience Ethical Climate types (EI <sup>2,</sup> EL, BC, PC)	EJ, EI	206 professional accountants in private industry (Hong Kong)	Quest., 4 SCEN	Few significant results were found for age, and Experience Gender was only correlated with EI with females exhibited more EI regarding operating manipulations. The highly significant effect was for position level on EI of operating manipulation and those at higher job position showed less ethical intention. Few significant results were found Among 12 relationships examined, only two significant results were found suggesting that instrumental climates (EI, EL) are significantly associated with EJ and EI of operating manipulations for earning management.	Factor Analysis Correlation SEM
(Wang & Calvano, 2015)	Gender	EJ	93 undergraduate business students (U.S.)	Quest, 2 SCEN	Woman are generally more inclined to act ethically than men in one scenario	ANOVA
(C. w. Chen et al., 2016)	Gender	EDM	2754 Managers; respondents of WVS 2005-2008 from 30 Nations	Quest., 11 Items	Male managers are more willing to justify business- related unethical behaviours than female managers	Descriptive Correlations Regression

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Espinosa-Pike & Barrainkua, 2016)	Organisational Size Work Experience	EJ	126 External Auditors (Spain)	Quest, 9 Items (Statements)	No significant differences found in ethical judgment as based on length of experience or firm size	Factor Analysis ANOVA Regression
(Musbah et al., 2016)	Age, gender, work experience, Educational level, Personal Moral Philosophy (ID& RE) Ethical Climate (EL, BC, PC) Organisational Size Code of ethics Moral intensity (MC, SC, TI)	ER, EJ, EI	229 Corporate Management Accountants (Libya)	Quest., 4 SCEN.	In only 2 of 4 scenarios, Males reported higher ER, Age is positively associated to ER, and educational Level is positively and significantly related only to EI. Experience is significantly positively associated with ER in only 1 of 4 scenarios No significant results for code of ethics Organisational size is positively associated to EJ & EI, both results were significant in only 1 of 4 scenarios Moral philosophy and moral intensity is significant predictors of the three stages Few significant results were found for ethical climate MC & SC are stronger significant predictors than TI of the three stages of EDM	T-Tests ANOVA, Regression
(Shafer et al., 2016)	Age, Gender, work experience, educational level, position level Professional Commitment (APC & NPC)	EJ, EI	276 Tax personnel at Local Audit Firms (China)	Quest., 2 SCEN	Age, gender, education, position level is significantly associated with EJ, Only age and gender are significantly associated with EI Experience is not related to EJ nor EI PC is associated with EJ but not EI	ANOVA, Correlations, Regression, SEM
(Husser et al., 2017)	Age, Gender, work experience Organisational size, Moral Intensity (MC, SC, PE, CE, PX, TI)	ER, EJ	242 professional purchasers (Europe)	Ques., 6 SCEN.	Age, gender, Experience, and organisational size has no impact on ER, EJ Moral Intensity is positively related to ER, and EJ	Variance analysis, correlations

Authors & Year	Independent(s)	EDM Stages	Sample, field & Country	Instrument	Findings	Statistical Tests
(Johari et al., 2017)	Personal Moral Philosophy (ID& RE) Moral Intensity (MC, SC, PE, CE, PX, TI)	ER ER, EJ, EI	231 external auditors, (Malaysia)	Between- subjects experimental design, Ques., 2 SCEN.	ID & REL are significantly related to ER, idealism is positively related while relativism is negatively associated with ER in the 2 scenarios employed Moral Intensity is significantly related only to ER in the 2 scenarios employed	PLS Regression

\*1. Ethical decision making (EDM). 2. ER: Ethical Recognition, EJ: Ethical Judgment, EI2: Ethical Intention. 3. Quest. : Questionnaire. 4. SCEN.: Scenarios. 5. DIT: Defining issue test (a prominent test of moral development included five general social context- based scenarios). 6. Moral intensity dimensions (MC: Magnitude of consequences, SC: Social Consensus, CE: concentration of effect, PE: probability of effect, TI: Temporal Immediacy, PX: Proximity). 7. Personal moral philosophy: (ID: Idealism; RE: Relativism) 8. Ethical climate types (EL: Egoistic-Local, BC: Benevolent-cosmopolitan, PC: principle-cosmopolitan, PI: principle individual) 9. Professional commitment (APC: Affective professional commitment, NPC: Normative professional commitment).

(a) While firm size in relation to ethical intention was reported in Craft's (2013) review, finding regarding its relation with ethical judgment was missed.

# Chapter Three Research Methodology

# 3.1 Introduction

Having reviewed significant literature related to EDM research in the earlier chapter, several variables were then selected for examination and a theoretical framework and the hypotheses of the current study were developed. The methodology bridges the theoretical perspective and the empirical analysis of the research. Thus, before presenting the findings of the study in the next chapter, this chapter aims at justifying and describing the methodological positions that have been applied to carry out this study, and the methods that have been employed to collect the research data.

This chapter is organised in eleven sections as follows: Following this introduction, the aims and objectives of the study are revisited in the second section. Section three discusses the issues related to research philosophy and paradigm outlined within this study. Section four and five outline the issues related to research approach, design, and research population and sample selection respectively. Section six provided a detailed discussion of the main steps underlying the data collection process including questionnaire design, format, content, measures used for the research variables as well as translation and piloting, and a detailed description of the questionnaire administration process. Following this, section seven is intended to discuss issues related to questionnaire testing as well as issues related to reliability and validity of the operationalisation of the study variables adopted. Section eight discusses the issues related to the techniques used to control diverse types of biases that commonly threaten the reliability of findings of a survey research of this type. Finally, the statistical techniques used to analyse the research data, ethical considerations regarding data collection, and the conclusions, are detailed in the last three sections.

#### **3.2 Research Aims and Objectives Revisited**

Selecting the appropriate research methodology depends primarily on the nature of the research objectives and the context in which these objectives are pursued. As a reminder of the core investigation of this research mentioned earlier, the primary objective of the current research is to identify the factors underlying external auditors' EDM process in a developing audit context, namely Egypt. It aims specifically to determine the personal, organisational, and moral intensity dimensions that influence Egyptian external auditors' EDM stages. Thus, this study seeks to achieve some specific objectives, they are:

- To determine the relationship between eight personal variables (gender, age, educational level, auditor's position level, certification status, work experience, personal moral philosophy, and professional commitment) and Egyptian external auditors' EDM stages.
- To determine the relationship between three organisational variables (firm size, code of ethics, ethical climate) and Egyptian external auditors' EDM stages.
- To determine the relationship between perceived moral intensity dimensions (magnitude of consequences, social consensus, temporal immediacy, concentration of effect, probability of effect, proximity) and Egyptian external auditors' EDM stages.

#### 3.3 Research Philosophy and Paradigm

A critical step in designing a piece of research is to obtain a clear understanding of the philosophical grounds on which the research process rests. The research philosophy is related to the basic assumptions of the research process that linked the research objectives and questions to the employed methodological techniques. Assumptions related to the nature of the available knowledge a study is attempting to obtain, and assumptions regarding the ways through which the available knowledge could be obtained are matters of significance to the research process. Therefore, it is imperative to decide upon the research philosophy before deciding upon the research methodology and design. Research philosophy helps researchers to clarify available research designs will fit well to achieve research objectives.

Research philosophy represents underlying assumptions that guide how scientific research should be conducted through the use of reason and argument in seeking truth and knowledge (Collis & Hussey, 2009). These underlying assumptions range from

the ontological (relate to the nature of social phenomenon under investigation), epistemological (concern about the knowledge that can be obtained about the social phenomenon under investigation), and axiological (relate to the researcher's values role in the research process), to the methodological assumptions that set out the techniques used in collecting and analysing the research data. In the context of social sciences, these assumptions form the justification of several choices that the researcher has to make including: what data to be collected, from where, when data should be collected, and why these data specifically should be collected (Collis & Hussey, 2009; Crotty, 1998; Saunders, Lewis, & Thornhill, 2009). Whatever the ontological or epistemological and axiological assumptions the research has adopted, these issues have to be "consistent with each other and to be explicable within a cohesive body of theory (or 'paradigm')" (Brand, 2009, p. 430, emphasis in the original).

A paradigm sets a specific way for viewing the social world. "It is a way of examining social phenomena from which particular understandings of these phenomena can be gained and explanations attempted" (Saunders et al., 2009, p. 118). It provides a philosophical framework to guide researchers through the process of conducting their research (Collis & Hussey, 2009), through addressing questions of critical importance to the research act, such as questions addressing the nature of the reality under exploration (ontological question), the possibility of exploring that reality (epistemological question), and the ways through which this reality could be investigated (methodological question). Thus, before designing the current study, a careful identification of paradigm assumptions is needed. Creswell (2009) maintained that although they remain concealed in the research, philosophical assumptions are still essential to be identified since they impact all aspects of the research process. These philosophical orientations have been addressed by many social science scholars. However, they have been termed differently. Crotty (1998) and Bryman and Bell (2011) have called them epistemologies and ontologies. However, Creswell (2014) has chosen to use the term worldviews, while others have called them paradigms (Burrell & Morgan, 1979).

#### 3.3.1 Ontological Assumptions: Objectivism VS. Constructionism

Ontology is one of the core branches of philosophy. It is "the image of social reality upon which a theory is based" (Grix, 2002, p. 177). It is concerned with the "question of the nature of reality, of the nature of existence" (Brand, 2009, p. 448). Burrell and Morgan (1979) maintained that social research rests implicitly or explicitly on philosophical assumptions a researcher holds about the nature of social sciences and about society. Ontological assumptions relate to how we understand the nature of reality (Collis & Hussey, 2009). It entails whether social entities under investigation are to be considered objective (objectivism) that have external reality independent of the social actors' perceptions, or they are considered a social construction (constructionism) of the social actors (Bryman & Bell, 2011). These ontological assumptions a researcher makes about reality establish how research is designed, conducted, and presented, not only what is researched (Rossouw, 2001).

According to Grix (2002), ontology represents the starting point of the research process, after which, epistemological and methodological adaptations will follow. There are two ontological assumptions, they are: objectivism and constructionism (subjectivism) (Bryman & Bell, 2011; Grix, 2002; Jonassen, 1991). Objectivism is an ontological assumption that views "social phenomena and their meanings have an existence that is independent of social actors" (Bryman & Bell, 2011, p. 21). From the objectivist perspective, the researcher assumes that reality is an external, and has concrete structure which affects everyone. Thus, it is assumed that using research methods such as surveys and experiments are appropriate ways to gain insights about the social world reality (Collis & Hussey, 2009). According to objectivism, data, evidence, and rational explanations and considerations shape knowledge acquired about social reality under investigation, and the researcher has to collect information on instruments based on measures or by direct researcher's observations, and these methods must be examined for bias (Creswell, 2014). Objectivists believe that there is one objective reality that is independent of the researcher. Extreme objectivist (materialistic) ontology tends to be closely aligned to empiricism school of thought and positivistic approach of research (Rossouw, 2001).

On the other hand, stemming from the need to explore the subjective meaning of social actions to understand the social reality, constructionism or social constructivist is an ontological assumption that views social reality and their meanings are on a continuous accomplishment by social actors (Bryman & Bell, 2011). Perceptions and consequent actions of social actors determine social reality which is under continuous revision as a result of social interaction (Saunders, Lewis, & Thornhill, 2007). Unlike objectivist ontology which tend to reject and ignore the variety of meanings individuals give to social realities, constructivists believe that there is no fixed meaning to the social reality and the meanings of reality is on a continuous process of fluctuation and renegotiation (Rossouw, 2001). According to constructivism, social actors develop subjective meanings and experiences of social reality and these meanings are multiple and diverse to the extent that hinders the social researchers' ability to categorise them in narrow categories or ideas (Creswell, 2014). Underlying the constructivist view of social reality is the assumption that human beings make sense of the social world around them based on historical and social perspectives and interactions, and they are continually generating meanings which is always social that results from their interaction with the surrounding community (Crotty, 1998).

According to constructivist ontology, social research is to rely as much as possible on the participants' views about the phenomenon being studied (Creswell, 2014); the aim of the research is to explore how the participants affect, and how they are affected by the reality. In general, while objectivists believe in one single reality, constructivists believe that there are multiple truths and social realities (Vrasidas, 2000). Contrasting philosophical views that underpin objectivism and constructivism are presented in Table 3.1.

Category	Objectivism	Constructivism	
The real world	Has entities that can be categorised on the basis of their properties and relations.	Is a structure by our individual minds on the basis on our interactions and this limits what we can know about the real world.	
Reality is	Fully and explicitly structures in a way that is shared by all who perceive it.	Personal to ourselves in a universe of multiple realties. It is modeled by the way in which we personally construct them.	
Symbols are	Representations of reality, and are only meaningful to the degree that they respond to reality.	Products of culture that are used to construct reality.	
The Human Mind	Processes abstract symbols and fashion them so that they reflect nature.	Perceives and interpret the world by creating symbols	
Human thought	Symbol-manipulation and is independent of the human organism.	Imaginative, and develops out of perception, sensory experiences, and social interaction.	
Meaning	Exists objectively and independently of the human mind and is external to the researcher.	Is a construction that results from interpretative process depending on the experience and understanding of the researcher.	

Table 3.1 Contrasting Views of Objectivism and Constructivism

Source: Cronjé (2006, p. 390)

#### 3.3.2 Epistemological Assumptions: Positivism VS. Interpretivism

Epistemology is a branch of philosophy that refers to the theory of knowledge (Curtis & Curtis, 2011; Grix, 2002). It is concerned with "what we accept as valid knowledge" (Collis & Hussey, 2009, p. 59) in a field of study. It "generates differing attitudes to making and understanding observations of the social world, and the possibilities for science" (Curtis & Curtis, 2011, p. 286). The question of whether the social entities can be studied with the application of the same methods, procedures as the natural sciences is a central concern for epistemological beliefs (Bryman & Bell, 2011). A researcher's epistemological assumption determines how it is possible to gain knowledge. It determines the methods, validation, and possible ways to gain knowledge of social reality (Grix, 2002). This entails the relationship between the researcher and that, which is researched (Collis & Hussey, 2009). According to Saunders et al. (2009), Epistemological assumptions could be categorised into positivism and interpretivism.

At one end of the epistemology continuum, positivists believe that valid knowledge is the phenomena that are observable and measurable (Collis & Hussey, 2009). Positivist epistemological position sees knowledge as hard and tangible. It entails working with an observable social reality, and research results can be a law-like generalisations (Saunders et al., 2009). It encourages the application of natural sciences methods to study the social reality (Bryman & Bell, 2011). Research conducted under positivist approach is carried out, as far as possible, in a value-free way (Saunders et al., 2009). Positivists see themselves as detached and independent from what they are researching (Collis & Hussey, 2009).

On the other side of the epistemology continuum, the epistemological position of interpretivism criticises the positivist world view and argues that the social reality is far too complex to lend itself to theorising by definite laws in the same way as the natural sciences. It tends to minimise the distance between the researcher and that, which is researched (Collis & Hussey, 2009). Unlike positivism, according to intrepretivism, as strategy is needed that consider the differences between people and the objects of natural sciences, the subjective meaning of social action is the targeted aim for a researcher (Bryman & Bell, 2011). Values held by researchers, although they may have not been made explicit, assist in determining social facts and interpretations drawn from them (Collis & Hussey, 2009). Features that distinguish the two main epistemological positions are summarised in Table 3.2 below.

Positivism	Interpretivism
Use large samples	Use small samples
Have an artificial location	Have a natural location
Be concerned with hypothesis testing	Be concerned with generating theories
Produce precise, objective, quantitative data	Produce 'rich', subjective, qualitative data
Produce results with high reliability but low	Produce findings with low reliability but high
validity	validity
Allow results to be generalised from the	Allow findings to be generalised from one
sample to the population	context to another similar context
validity Allow results to be generalised from the	validity Allow findings to be generalised from one

Table 3.2 Features of the Two Main Epistemologies

Source: Collis and Hussey (2009, p. 62)

#### **3.3.3** Paradigm (Theoretical Assumptions) Adopted by the Current Study

Despite the growing calls for paying efforts in this respect, scant attention, however, has been given to paradigm issues in business ethics research area to which the current study belongs; there is a relatively small body of work that addresses philosophical assumptions of business ethics scholarship in general and EDM research in specific (Brand, 2009; Campbell & Cowton, 2015; Crane, 1999). Distinguishing characteristics of business ethics field offered a sound justification for this paucity of efforts devoted to the field's paradigm analysis. Thus, before discussing paradigm issues related to the current study, it is crucial to recognise the main characteristics that distinguish EDM research from other business disciplines in specific, and other social areas in general.

Firstly and most importantly, is that business ethics in general and EDM research in specific is commonly cited as a multidisciplinary area of inquiry; it attracts the contributions from a wide array of academic background (Campbell & Cowton, 2015). Many scholars from diverse backgrounds including, Accounting, Marketing, Philosophy, and Psychology have contributed to theoretical and empirical EDM literature. Each group brings its discipline's philosophical assumptions to the area of business ethics research (Brand, 2009; Brand & Slater, 2003). Secondly, in the early stages of EDM research, the emphasis was largely on normative rather than descriptive approaches, and considerable emphasis has been given to theory development rather than testing (Brand, 2009; Randall & Gibson, 1990). Thus, pathways for more empirical research have been considerably paved. Finally, business ethics research has been widely known as an inherently sensitive area of inquiry (Rossouw, 2001), and this increases the potential for the probable contamination of data obtained from EDM research due to social desirability response and non-response biases that commonly threaten the validity of social research.

Although scholars from diverse backgrounds have contributed to business ethics research, the majority is from a business school of thought who adopts a positivistic approach and applies quantitative empirical methods familiar to them (Brand, 2009). Additionally, the heavy reliance on developing theories in the early stages of EDM

research makes empirical research that applies positivist philosophies more desirable. Moreover, to decrease the potential for social desirability response bias that commonly threaten the validity of the business ethics data, researchers have widely adopted quantitative methods associated with positivist paradigm, rather than qualitative techniques associated with interpretivist paradigm that eliminates the distance between the researcher and what is researched, so that to decrease the potential for obtaining biased data.

In general, the adoption of a specific research paradigm could be justified on several grounds. In this context, Collis and Hussey (2009) have identified several issues to consider, most importantly is the research problem and how knowledge can be obtained; issues related to the research questions (Saunders et al., 2009), research objectives (Bryman, 2007), and practical considerations such as the research time and cost constraints certainly influence the adoption of a certain research paradigm; and finally, the relative dominance of a specific paradigm (Brand, 2009; Collis & Hussey, 2009), as well as the available theoretical and empirical literature in the research area should also be considered.

As mentioned earlier, the purposes of the current study are explanatory in nature; it aims at determining the personal variables, organisational variables and moral intensity dimensions that influence external auditors' EDM in Egypt. This study aims to answer questions of what ethical choices external auditors make, and with what personal, organisational, and issue-specific variables these choices are associated. These types of research questions are considered answerable through an objective ontological stance and a positivistic epistemological position. This study is not intended to answer general questions about what is just, fair, or right in the external audit context nor what do auditors think about the justness or rightness of their ethical action that may appear interpretative in nature. Although the current study aims to investigate the EDM stages of external auditors, the aim is to determine the factors underlying their EDM stages. According to Burrell and Morgan (1979) typology of social research paradigms, this study is closely positioned at the functionalist paradigm. Additionally, the positivist paradigm adopted by the current research partly determined after reviewing the relevant theoretical and empirical literature, which provides a significant basis for developing testable hypotheses. This study tests propositions offered by several EDM theories and models (e.g., Hunt & Vitell, 1986; Jones, 1991; Kohlberg, 1981; Rest, 1986; Trevino, 1986) to develop the theoretical framework of the current study and deduce a testable hypothesis to be tested among a sample and obtain reliable results that could be generalised to the larger population of external auditors. A quantitative approach that takes a positivistic stance is associated with this deduction reasoning. Furthermore, although it is not academically defensible, practical considerations such as the time and costs available for the research influenced the adoption of the positivistic research paradigm that commonly use the survey techniques. Moreover, most of the research in the field of business ethics in general, and EDM in specific, appears to be guided by one set of philosophical assumptions-those of positivism (Brand, 2009; Brand & Slater, 2003; Campbell & Cowton, 2015; Randall & Gibson, 1990).

In conclusion, given the aims of the research and the distinguishable characteristics of the business ethics research in general and EDM research in specific, this study adopts the objective stance of social science rather than the subjective view, an objectivist ontology and positivist epistemology were adopted. A determinism philosophy of human nature and nomothetic methodological assumptions is also used as contrasted below with the subjective stance in Table 3.3 below.

Philosophical Assumptions	Subjective	Objective
Ontological Assumption	The individual interprets reality. It is socially constructed. (Constructionism)	Reality is external to the individual. It is a "given" (Objectivism or Realism)
Epistemological Assumption	Knowledge is relative. The focus is on meaning and examine the situation in total (Anti-positivism or Interpretivism)	The focus is on empirical evidence and hypotheses testing. Looking for fundamental laws and causal relationships (Positivism)
Assumptions about human Nature	Human possesses free will and has autonomy (Voluntarism)	Humans are products of their environments (Determinism)
Methodological Assumption	Understanding the world is best done by analysing subjective accounts of a situation or phenomena (Ideographic)	Operationalising and measuring constructs. Through quantitative analysis and hypotheses testing, universal laws that explain and govern reality will be uncovered. (Nomothetic)

 Table 3.3 Assumptions about the Nature of Social Science

Source: Goles and Hirschheim (2000, p. 252)

# 3.4 Research Approach, Strategy, and Design

Every piece of research will involve, in a way or another, the use of theory. Research approach entails the relationship between theory and research; it entails the questions about whether research is conducted to test theories or to build theories. Existing theory could inform new research, and new research expands on existing theory. It is of utmost importance to the research design that the approach and strategy relied upon to carry out the research should be consistent and justifiable for the topic of research (Rossouw, 2001), and it has to be consistent with the research paradigm adopted. An approach to carry out a piece of research spans the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation (Creswell, 2014). With respect to the relationship between theory and research, there are two major approaches to theory development, the deductive approach in which the focus is upon testing of theories (theory testing), and the inductive approach in which the accent is placed on the generation of theories (theory building).

The deductive approach is a highly structured approach that emphasises the scientific principles and the necessity to select sufficient sample sizes to enable generalisation

from the sample to population (Saunders et al., 2009). Under the deductive approach, the role of theory is to deduce or develop testable hypotheses regarding the relationship among variables of interest to explain a certain social phenomenon, and then data is collected empirically from a sample to either support or present a modification of the propositions introduced by the theory (Collis & Hussey, 2009). Under the functionalist paradigm adopted by the current study, a deductive based research is commonly adopted (Henwood & Pidgeon, 1992; Hyde, 2000; Perry, 1998). Bryman and Bell (2011) maintained that the deductive approach represents the most common view of the relationship between theory and research.

In contrast, the inductive approach involves movement in the opposite direction of the deduction. Under the induction reasoning, implications of the research findings are inferred for the theory; findings of the research are fed back into the stock of the theory, which is the outcome of the research (Bryman & Bell, 2011). The induction approach realised that the researcher is part of the research process, it underscores the understanding of the meanings that individuals attach to social events, it entails the collection of qualitative data, and less emphasis for generalised conclusions (Saunders et al., 2009). While the role of research under the deduction approach is to test theory, it is to build theory under the inductive approach. In general, the deductive approach is usually adopted within quantitative research that emphasises the quantification of the research data, while qualitative studies that usually focuses on words and texts, are predominantly adopts an inductive approach (Bryman & Bell, 2011). Differences between qualitative and quantitative studies in terms of philosophical orientations and research approaches are depicted in Figure 3.1.

The selection of the appropriate approach to adopt in this study is based largely on the nature of the research problem as well as the study's objectives and questions. Creswell (2006) maintained that the research approach should be matched with the problem of the research. The current study attempts to identify underlying variables influencing EDM stages of external auditors, it attempts to answer questions of what factors best predict the EDM of external auditors. The deductive approach is considered better than the inductive approach for the current study. (Creswell, 2006)

recommends the adoption of the deductive approach/theory testing when the nature of the problem is identifying factors that influence an outcome, the utility of an outcome, or understanding the best predictors of an outcome.

	Quantitative	Qualitative
Principle orientation to the role		
of theory in relation to research	Deductive; testing of theory	Inductive; generation of theory
(Research approach)		
Epistemological orientation	Natural science model, in	Interpretivism
	particular positivism	
Ontological orientation	Objectivism	Constructionism

Figure 3.1 Distinctive Aspects of Quantitative and Qualitative Research

Source: Bryman and Bell (2011, p. 27)

Several research strategies could be employed within the deductive and inductive approaches to conduct business research, a research strategy entails the overall plan for conducting the research, it guides the researcher in planning, executing, and monitoring research (Johannesson & Perjons, 2014). It is a "structure that guides the execution of a research method and the analysis of the subsequent data" (Bryman, 2004, p. 27). A wide range of research strategies including experiment, survey, action research, grounded theory, simulation, and ethnography (Cooper & Schindler, 2008; Saunders et al., 2009). A distinction should be made here between the research strategy and the research method, while method entails the tool or technique used to collect the data, a research strategy can be viewed as a high-level guidance for collecting and analysing (executing the research method) the research data (Johannesson & Perjons, 2014).

As many diverse research strategies exist, a researcher has to consider the nature of the research to determine which one of those strategies to employ. The research strategy should complement the ontological, epistemological assumptions, and the theory reasoning approach a researcher has adopted for his/her research. Some of these strategies clearly belong to the inductive approach (e.g., grounded theory) while some others clearly belong to the deductive approach of reasoning (e.g., survey) (Creswell, 2006). Selecting the research strategy also depends on the nature of research questions and objectives (Bryman, 2007; Johannesson & Perjons, 2014). The choice of the research strategy is also partly depends on the time and the resources

available for the researcher (Johannesson & Perjons, 2014; Saunders et al., 2009), for example, grounded theory and action research are considered highly time-consuming strategies (Bryman & Bell, 2011; Saunders et al., 2009).

Although other strategies could be adopted to carry out this study (e.g., experiment, case study), the use of survey strategy is considered appropriate and efficient. The survey strategy is one of the most widely adopted strategies in behavioural and attitudes research (Dillman, Smyth, & Christian, 2009). A survey strategy provides numeric descriptions of trends, attitudes, and/or opinions regarding a population of interest by studying a sample of that population with the aim of generalising or making claims from the sample to the targeted population (Creswell, 2014). It could be conducted during a highly structured interview with or without a human interviewer (Cooper & Schindler, 2008). It is usually accompanying the deductive approach adopted in this study (Saunders et al., 2009). On several grounds the adoption of survey strategy in this study could be justified, firstly, and most importantly, given the aims of the study to examine a broad set of variables and the need to conduct a multivariate data analysis, the use of survey strategy will enable the researcher to collect a relatively large number of cases required for these types of data analysis (Field, 2009; Hair, Tatham, & Black, 2006). Secondly, given the time and costs available for the researcher, and the nature of research population (external auditors) who have more limited time constraints to respond to academic research, unlike experimental strategies, survey strategy will allow the researcher to obtain data in a relatively highly economical way (Creswell, 2014; Easterby-Smith, M.Thorpe, R. Jackson, & Lowe, 2008; Saunders et al., 2009). Thirdly, relative to other research strategies, survey strategy is generally perceived as authoritative by people and is relatively easier to explain and to understand by targeted respondents (De Vaus, 2002; Saunders et al., 2009). Survey strategy has been commonly adopted in the business ethics literature (Brand, 2009; Campbell & Cowton, 2015; Randall & Gibson, 1990).

With respect to time horizons of the current study, two designs could be employed in social science research, the cross-sectional or longitudinal designs. The cross-sectional surveys entails the collection of data at a particular point of time (snapshot)

to gain insights about the variables of interest, while the longitudinal designs is appropriate when the researchers intend to gain a series of snapshots or representations of events over a given period of time (Saunders et al., 2009). Although some variables examined in this study could be investigated longitudinally (e.g., age and experience), cross-sectional design (a group of participants have been selected for participation at the same time) is considered appropriate given the time and costs available for the researcher. The cross-sectional surveys have been commonly used in the business ethics research generally and EDM research specifically (Craft, 2013). This was also clearly noted in the most recent empirical studies reviewed by this study (see Table 2.4).

# **3.5 Research Population and Sample**

External auditing is a process, which is usually done by a team including the audit partner (in-charge partner authorised to sign the audit report) and an audit manager who is responsible for mentoring and following up the field work carried out by assigned senior and junior auditors, and a group of seniors, and juniors who are assigned all of the audit fieldwork. In this study, all members of the external audit team were targeted for participation.

Several ways have been employed by external audit scholars to approach external auditors for research participation. Some researchers have used mailing lists provided by professional accounting associations (e.g., AICPA mailing list of certified public accountants) (e.g., Ketchand et al., 1999; Shafer et al., 1999, 2001; Snape et al., 2008). Some other researchers have made a use of either their employability as an external professional trainer in audit firms and approach participants (external auditors) at within-firm training sessions, or as an instructor within professional education courses in preparation for examination of a professional accounting body and then approach respondents at lectures and encourage them to participate in the research (e.g., Arnold et al., 2013; Sweeney et al., 2010; Sweeney et al., 2013). Since these methods usually involve the presence of the researcher while filling in the questionnaires, its main advantage is the relatively high response rate. The majority of accounting research that dealt with external auditors as research participants have used the audit firms at which those auditors are employed as a venue to contact

external auditors (e.g., Ahson & Asokan, 2004; Shafer, 2008, 2009; Shafer et al., 2013a, 2013b; Shapeero et al., 2003). Since junior staff auditors might not be all registered with mailing list of professional associations, they represent the ground base of professional auditors' pyramid. They also have an important role in audit firms as their work ultimately determines the reliability of the basis for major decisions at the highest level in audit firms. To be able to contact them for the current study, contacting research participants via audit firms at which they are employed is considered to be the most appropriate way to approach research participants.

With reference to the research aims and objectives formulated for this study, as well as the research approach and design adopted, all external auditors working in all audit firms during the time of the study, as defined above, will be targeted to participate in this study. The data is to be collected from a developing audit environment in terms of regulatory framework and market size, the Egyptian audit market is considered relatively less-developed (emerging) environment for the audit profession. In order to obtain initial data about the study's population, the web pages of the audit oversight authority in Egypt were searched for reports concerning the external audit market. For the purposes of testing the study's hypotheses, several criteria were established to be met so as to be able to select the appropriate audit firms to participate, such as firstly, having a significant market share, audit firms with a trivial market share of audit clients may not be appropriate to achieve the aims of the current research. Secondly, not all audit firms employed a considerable number of auditors; small and local firms that have a limited number of auditors will not be selected. Thus, only audit firms, which affiliate with international firms' networks, were selected, as these international firms are expected to have a well-designed and isolated external audit department.

In 2008, the formerly Capital Market Authority has established the auditors' quality control unit (QCU) with the aim of maintaining an oversight and quality control mechanisms on registered auditors' work. Although QCU has maintained a record for registering auditors who are licensed to audit listed companies and public subscription entities, this record included only engagement partners who are licensed to sign the audit report. In practice, the audit client appoints individual partners of audit firms.

Alternatively, it was found appropriate to approach research participants via audit firms at which they are employed.

In Egypt, there is no published information concerning the number and size (as measured by the number of partners) of audit firms (Samaha & Hegazy, 2010). The stock exchange represents the most targeted audit market that audit firms strive to dominate, thus audit clients listed on the stock exchange could act as a proxy for the audit market. Similar to the approach adopted by Samaha and Hegazy (2010) to select their targeted population of external auditors in Egypt. The current study sets the target population as external auditors who work for audit firms that dominate that Egyptian stock exchange audit market. As per the 2014 annual report of the Egyptian stock exchange, 214 companies were listed in the main market (EGX, 2014a). The website of the Egyptian stock exchange regularly published a list of listed companies (EGX, 2014b). Data regarding the external auditor assigned were obtained from the latest published annual report of those listed companies either through the companies' website, if found, or from an Egyptian company for information dissemination; only 19 audit firms were found to meet the criterion set above. They are all members of international audit firm networks including the Big-X audit firms.

Those selected firms, collectively audits nearly 74% of EGX100 (100 most actively traded companies) and approximately 69% of the whole main market (214 listed companies). With respect to the study's sample, a 100% sample was obtained. All the 21 offices of those 19 audit firms located in Cairo (the capital, represents the country's national center for economic and business activity in Egypt), Giza, and Alexandria (those three are the most urban cities in Egypt) were chosen to be visited in order to disseminate the questionnaire, after an initial meeting with the office managing partner/ lead audit partner, based on the numbers they provided about all external auditors employed by the firm and those who spent most of their time doing the tasks related to external audit, the sample of this study was mainly determined. The number of distributed questionnaires and the response rates will be provided later (see section 3.6.5).

# **3.6 Research Method**

Choosing a research method is a critical element of a research approach, Creswell (2006) emphasises the need to consider the full range of research methods possibilities to be adopted within the research, he recommends to organise these methods by their degree of predetermined nature and their use of closed-ended versus open-ended questioning, and their focus on numeric versus non-numeric data (Creswell, 2006). Methods to collect research data could be mono-method (quantitative or qualitative) or multiple (mixed/ multi) methods. Mono method entails the use of a single quantitative (e.g., questionnaire) or a single qualitative data collection technique (unstructured interviews) to collect research data, while the use of multi-methods entails the combination of either more than one quantitative or qualitative method), or a combination of a qualitative with a quantitative method (mixed methods) either at the same time (parallel), or one after the other (sequential) (Creswell, 2006; Saunders et al., 2009). Distinguishing characteristics of qualitative, quantitative, and mixed research methods are presented in Table 3.4 below.

Selecting the appropriate research method could be linked to several conditions related to the research questions, accessibility to research participants, as well as the research philosophy adopted by the researcher. Different research methods could be adopted and are associated with different kinds of research design. For a survey strategy of this research that adopted a cross-sectional design, usually questionnaires or structured interviews are used as a research method. Although, there are a number of other research methods to employ in this study (e.g., experiments, interviews), and several arguments have been raised to extend the methodological base of business ethics research (Brand, 2009; Campbell & Cowton, 2015; Cowton & Downs, 2015; Lehnert et al., 2016), however, given the study's objectives and the area of research, questionnaire is considered an appropriate and beneficial to adopt in this study.

On several practical grounds, the choice of the questionnaire as a research method for the current study could be justified. First, due to the sensitive nature of the current research, using self-completion data collection method, such as questionnaires, can reduce biasing errors that may result from the differences in the personal characteristics and skills of the interviewers. Secondly, using self-completion questionnaires in an ethics study helps in ensuring anonymity to respondents thus reducing social desirability response bias that frequently occurs in ethics research (Bernardi & Adamaitis, 2006; Bernardi, Delorey, LaCross, & Waite, 2003; Campbell & Cowton, 2015) as well as achieving relatively higher response rates. Finally, given the time and cost available for the researcher, it enhances the accessibility to the research participants with minimal costs, self-completion questionnaires are easy, quick, and cheap to administer to a relatively large sample of participants (Campbell & Cowton, 2015; Cowton, 1998). It enables the respondents to take their time in answering the questions and allows them to answer freely without any pressure, and thus may enhance response rate and encourage honest responses. Following is the next subsections that discuss the design and layout of the questionnaire, scenarios employed and the operationalisation of research variables as well as the questionnaire translation, piloting and administration.

Witchious			
Quantitative Methods	Mixed Methods	Qualitative methods	
Pre-determined	Both predetermined and emerging methods	Emerging methods	
Instrument based questions	Both open- and closed-ended questions	Open-ended questions	
Performance data, attitude data, observational data, and census data	Multiple forms of data drawing on all possibilities	Interview data, observation data, document data, and audiovisual data	
Statistical analysis	Statistical and text analysis	Text and image analysis	
Statistical interpretation	Across databases interpretation	Themes, patterns interpretation	

 Table 3.4 Characteristics of Quantitative, Mixed, and Qualitative Research

 Methods

Source: Creswell (2009, p. 15)

#### 3.6.1 Questionnaire Design, Wording, and Layout

Since the questionnaires offer only one chance to collect the research data, the questionnaire design is crucial for the conduct of survey research. The issue of how questionnaire is to be designed, how questions should be asked is of critical focus for survey researchers (Bryman & Bell, 2011; De Vaus, 2002). Several adverse consequences could result from a poorly designed questionnaire, including inaccurate answers for research questions, limited generalisation, irrelevant information, inadequate conclusions, inefficient research outcomes resulting from waste of resources, unsatisfactory response rates, and a relatively low validity and reliability (Oppenheim, 2005; Saunders et al., 2009). In this sense, social science scholars (Bryman & Bell, 2011; Collis & Hussey, 2009; Dillman et al., 2009; Oppenheim, 2005; Saunders et al., 2009) have provided several recommendations and suggestions to consider when formulating a survey questionnaire to ensure accurate data is to be collected including appearance and layout, questions formatting, ordering, and wording. For example, long, general, leading, double-barreled, questions shall be avoided (Bryman & Bell, 2011).

For a survey questionnaire, two types of questions can be adopted, open and closed questions. Difference between both is focused on the degree of freedom given to respondents regarding answering the questions, that while closed questions provided the respondents with some alternative responses to select from, open questions gives the respondents the opportunity to formulate their own answers. De Vaus (2002) maintained that no consensus has been reached about which type is more beneficial

and preferable to researchers. Recommendations have been made for the use of openended questions in business ethics research given the importance of context with respect to the EDM in business (Bain, 1995; Crane, 1999). However, given the current survey aims and the nature of the targeted respondents, forced choice questions are considered more appropriate. Closed ended questions are quicker to answer since they require less effort on the part of the respondents than open-ended questions (Saunders et al., 2007), they are easy to be computerised and analysed in a less ambiguous manner (Dillman et al., 2009). Closed questions are more appropriate when employing a relatively lengthy questionnaire, as the one employed in this study, and respondents' motivation to answer questions is relatively low (Cooper & Schindler, 2008; De Vaus, 2002; Oppenheim, 2005). Closed questions have been frequently adopted in business ethics research in general and EDM research in specific (Crane, 1999). One open question was also adopted in this study as an "other" category in three questions related to educational level, position level, and certification status of the respondent to give them the opportunity to list any other possible answer.

Six types of closed questions could be adopted. Firstly, a list questions where the respondent is offered a list of items to select. Secondly, a category question where only one response will be selected. Thirdly, rank questions, where the respondent is asked to rank order the given choices. Fourthly, quantity questions where the respondent is asked to give an amount. Fifthly are the rating questions where a rating device is presented to respondents to give responses to items, and finally matrix questions in which the responses of two or more questions are recorded using the same grid (Saunders et al., 2009). In this study, only two types of closed questions have been employed; the category questions and rating questions in the form of Likert- rating scales. Category questions are used when attribute variables are sought for (Dillman et al., 2009), and thus categorical questions were used to collect data regarding external auditors' demographics (e.g., age, gender) and other categorical variables (e.g., experience, educational level, certification status, and position level). Rating questions are often employed to collect opinion data variables (Dillman et al., 2009), and Likert-style rating scale is commonly used with this type of questions.

Rating questions have been frequently used in survey research in general and behavioural accounting research in particular (Eutsler & Lang, 2015). Rating questions were used in this study to collect data regarding both dependent and independent variables (e.g., EDM stages, personal moral philosophy dimensions, professional commitment dimensions, and ethical climate types). For these questions, respondents were asked to circle one of seven choices on a sliding scale.

The scale design is also crucial for survey research. Scale characteristics, including labels and number of points could have profound effects on the quality of data collected and results of statistical analysis. Dawes (2008) maintained that scale characteristics may affect the results of regression, variance, and factor analyses. Regarding the scale attributes adopted in this study, two types of labels were used; an agreement scale to assess the respondent's level of agreement on items to measure EDM stages, professional commitment, personal moral philosophy, and moral intensity dimensions {from (1) "strongly disagree" to (7) "strongly agree"}, and a true/untrue scale to assess respondent's opinions concerning items designed to measure ethical climate types and Impression Management items. To date, there was no definite scale length has been agreed upon (Eutsler & Lang, 2015). In this study, with the exception of the ethical climate question that employed six-points scale, Likert scale length was set at seven points (rather than 5 or 10 points). The use of seven points may encourage respondents to critically assess the question items and thus it may enhance the quality of their response. Research indicate using beyond seven points does not increase variance (Eutsler & Lang, 2015).

With the exception of the impression management items, all items were fully labelled rather than labeling only the end points. The use of fully labelled scales enhances the consistency between respondent's and researcher's interpretations of middle points (Eutsler & Lang, 2015). Dillman et al. (2009) maintained that without fully labeling all points, middle points interpretations will be left open. Thus, the adoption of seven points fully labelled scale in measuring some of the study variables is considered more appropriate. The use of fully labelled scale points effectively minimise response bias, minimises error, and maximises power and variance (Eutsler & Lang, 2015).

Regarding the layout of the questionnaire, the questionnaire of this study was 10 pages long including the cover page, and divided into five sections. On the cover page, the logo of the University of Huddersfield was printed to encourage targeted participants to respond to the questionnaire. Placing the logo on the cover page may emphasise that the survey is for academic purposes. Participants were informed about the purposes of the survey along with the written instructions to complete the questionnaire were presented. The importance of providing honest answers was emphasised by informing respondents that their responses will not be subjected to the assessment with respect to the rightness or wrongness. The cover page states clearly the length of time to complete the survey and prospective participants were assured regarding their anonymity and the confidentiality of their responses to encourage respondents to provide honest answers, as well as the contact details of the researcher and his supervisors. Respondents were also asked to provide their emails should they need a copy of the research results.

The questionnaire consists of 122 questions divided among the five sections. As recommended by Bryman and Bell (2011), ambiguous terms, long, very general, leading, double-barreled, double negative have been completely avoided. The first section deals with the respondents' personal information; responses to this part are used to classify the respondents according to their age, gender, educational background, professional qualification, job title, and audit work experience and to examine their association with EDM stages. This section also includes a yes or no question concerning the existence of code of ethics within audit firms. Demographic and yes or no questions were presented at the beginning of the questionnaire as they are the quickest and the easiest to answer so that to give participants the impression that the questionnaire is easy to answer. The second section is concerned with the perceived ethical climate within audit firms. The third section focused on measuring personal continuous variables (personal moral philosophy and professional commitment). The fourth section has dealt with EDM stages as well as perceived moral intensity along for different audit ethics scenarios. Scenarios as well as the social desirability response bias scale have been left to the end of the questionnaire since they may appear sensitive to respondents. The ordering of the four scenarios

was not varied among all participants so that to ensure that any possible ordering effects were consistent among all participants.

In general, a considerable time and effort have been devoted to the design of the questionnaire; the final version of the questionnaire has been finalised after reviewing, thorough assessment and piloting (see section 3.6.4 below). A copy of the questionnaire, both in English and Arabic languages, is attached in the Appendices A and B respectively.

### **3.6.2** Measures and Sources of the Questionnaire

The operationalisation of research variables is a critical step in the research design. In these regards, Saunders et al. (2009) indicates that researchers have three options available, to adopt questions in other questionnaires, to adapt questions in other questionnaires, or to develop their own questions. In this study, several questions have been adopted were employed in other questionnaires. This section discusses the measures adopted for the operationalisation of the research variables.

## 3.6.2.1 Section A: Respondents' Demographics and Categorical Variables

Section A was designed to elicit respondents' demographics including: Age, gender, educational level, professional qualification, current job title (Position level), and length of work experience. Questions A1, A2, were designed to collect information concerning participants' Age and gender respectively. They were presented in categorical items. Question A3 was devoted to elicit respondents' academic qualification (educational level); Question A4, was designed for the respondents' professional qualification(s) (certification status). Six categories were presented including and an "Other" category based on the most common professional qualification offered by the "Egyptian Association for Accountants and Auditors". In Questions A5 and A6, external auditors were asked to provide information about their job title and years of audit experience respectively. Both questions were in the format of categorical items. Auditor's job title was categorised in six levels including an "other" option. The categories given in this question have been adopted by prior audit research (e.g., Arnold, Bernardi, Neidermeyer, & Schmee, 2005, 2007; Shafer, 2008).

Five categorical items were provided to elicit participants' audit experience; the categories provided ranges from the least category of "less than 5 years" to the highest category of "more than 25 years" of audit experience.

The existence of the code of ethics within audit firms surveyed was measured in terms of the auditor's standpoint of whether a firm's code of ethics exists (i.e., Knowledge of, or belief about). Question A8 was designed in Yes or No format asking the respondent to indicate whether his/her "firm has explicit written-down guidelines for ethical conduct? For example, in a standalone booklet (Namely, e.g., Code of ethical conduct, Code of Professional conduct, etc., or in some other form (e.g., employee handbook, Firm's business conduct guidelines.)". A similar operationalisation has been adopted by studies attempted to investigate empirically the existence of code of ethics and it is effect on individuals' judgments (e.g., Musbah et al., 2016; Pflugrath et al., 2007; Rottig & Heischmidt, 2007).

### **3.6.2.2** Section B: Ethical Climate

Section B in the questionnaire was designed to measure external auditors' perceptions of their audit firms' ethical climate. To be consistent with how the audit firms' ethical context was conceptualised in this study, the Ethical Climate Questionnaire (ECQ) developed by Victor and Cullen (1987, 1988), which was then refined and validated by Cullen et al. (1993), has been used for operationalisation purposes, an ideational measure of audit firms' ethical context is considered appropriate (see discussion earlier in Chapter 2, section 2.4.2.3).

In their meta-analysis of studies employed the ECQ covering the period since the first Victor and Cullen ethical climate publication appeared in 1987 to mid-year 2005, Martin and Cullen (2006, p. 178) have noted that the ECQ is "the most fully developed, widely used, and accepted measure of ethical climate to date". Their findings provide significant support for the ability of ECQ to explain variances in unethical behaviour demonstrated by strong correlations between ethical climate perceptions and organisational dysfunctional behaviours (Shafer et al., 2013b). Shafer (2008) added that, over the last two decades, the ECQ has been used extensively in

diverse organisational contexts. A recent systematic review of methods and analytical techniques of organisational ethics research reveals that ECQ was utilised in 32% of all quantitative and mixed-methods studies (McLeod et al., 2016).

The ECQ has been adopted and validated in prior ethics studies in business context in general (e.g., Agarwal & Malloy, 1999; Cullen et al., 1993; Deconinck, 2004; DeConinck & Lewis, 1997; Fritzsche, 2000; Malloy & Agarwal, 2001; Peterson, 2002a, 2002b; Treviño et al., 1998; Venezia & Venezia, 2010; Wimbush, Shepard, & Markham, 1997a, 1997b), and audit context specifically (e.g., Buchan, 2005; Cullen et al., 2003; Parboteeah et al., 2005; Shafer, 2008, 2009; Shafer et al., 2013a, 2013b; Venezia & Venezia, 2012), and it has been found to possess an acceptable levels of reliability and validity. Regarding its cross-cultural validity, interestingly, it has been adopted and validated to measure audit firms' ethical climate in cross-cultural studies (Parboteeah et al., 2005; Venezia & Venezia, 2012). Furthermore, interestingly, findings support the reliability of ECQ in an Asian audit context, which is similar in some respects to the Egyptian context (Shafer, 2008, 2009; Shafer et al., 2013b).

The most recent revision of the ECQ, as refined and expanded by Cullen et al. (1993), comprises thirty six items categorised in nine subscales (four items each), each subscale is designed to measure respondents' perception of each of the theoretical nine types of ethical climate, as conceptualised in the ethical climate typology, to exist in any organisation. Empirically, there has, however, been considerable variation across studies in the climate types identified. Findings reported by studies reviewed by Martin and Cullen (2006) support that not all climate types exist within diverse organisational contexts. They concluded that, in most organisations, not all distinct climate types appear. Although, certain climate types that appear relevant in an organisational setting, they may, however, sound irrelevant in another. In the present study, four climate types appear perceptible in the external auditing context. (See discussion in earlier in section 2.4.2.3)

Participants (external auditors working for audit firms in Egypt) were asked to act as observers reporting their perception of prevailing types of climates not their personal beliefs about what are the preferable ethical climates in audit firms at which they are employed. They were asked to indicate on a 7-points Likert rating {from (1) "completely false" to "completely true"} about how accurately each of the items describe their audit firm's ethical climate, where higher numbers represent stronger perceptions of climate types. Although, the original ECQ was developed with a scale based on a 6-points rating {from (1) "completely false" to (6) "completely true"}. Including a mid-point "Uncertain" in this scale appears reasonable as it enables less experienced auditors or new comers to the audit firm, who are not yet able to perceive the prevailing ethical climate, to respond to the items. Furthermore, in the selfcompletion questionnaire as adopted in this study, including a middle position is recommended to avoid forcing respondents to indicate a level of response that they do not have. Providing "do not know" or "cannot decide" responses is more likely to improve the an item's reliability (De Vaus, 2002). Additionally, using Seven-point Likert rating to the ECQ will maintain consistency with other items in the questionnaire in which 7-points rating was used with the majority. Seven-point rating of the ECQ has been previously used in ethics research (e.g., Treviño et al., 1998).

In addition to the randomisation made to the items among the four subscales, it should be noted that the wording of several items has been modified to fit with the distinguishable inherent traits of external audit profession. First, some items in the ECQ referred to the "organisation" have been modified to refer to the "firm" for which the auditors work; in order to make them appear more familiar to the targeted respondents. An additional modification has been made related to the most prominent ethical dilemma encountered by external auditors. The conflict of interests that is likely to arise between the auditor's customer (client) and the public interest, makes including items in the ECQ with reference points to auditor's customer (client) and public interest together appear confusing and unrealistic to participants (external auditors). Thus, the original four-items comprises the subscale related to social responsibility (benevolent/cosmopolitan) climate type that referred to "the customer's and public interest" were modified to refer to "public interest" only. This procedure is consistent with prior audit ethics research that used ECQ to examine audit firms' ethical climates (e.g., Shafer, 2008, 2009; Shafer et al., 2013b).

# 3.6.2.3 Section C: Personal Moral Philosophy

The first part (C1) in Section (C) of the questionnaire (see appendices) was designed to elicit information regarding the personal moral philosophy of all the respondents (Egyptian external auditors). Even though several theoretical classifications of personal moral philosophy exist, the most widely known and applied method of personal moral philosophy measurement is attributed to Forsyth (1980). Most studies on personal moral philosophy of accounting, auditing, and other business majors have used the Ethics Position Questionnaire (EPQ), of which, there is much more empirical support for the validity and reliability (Forsyth et al., 2008).

Based on previous recent published reviews of empirical EDM research in addition to the current study's review of external auditors EDM, the well-constructed EPQ has been widely adopted in previous EDM research. Craft (2013), in her recent review of EDM research, has provided thirty-two findings concerning individual moral philosophy/value orientation, of them, seventeen findings were reported using EPQ to operationalise idealism and relativism dimensions of moral philosophy. EPQ was also adopted by eighteen out of thirty-one studies reviewed by O'Fallon and Butterfield (2005) in an earlier review of the EDM literature. It can be noted that EPQ has been widely used by business ethics studies to investigate personal moral philosophies more than any other instruments.

This study is targeting external auditors working in Egypt, which is a developing economic and cultural context. Thus, it is crucial to emphasise the EPQ cross-cultural validity. EPQ has been effectively used and validated in several ethics studies involving the use of cross-cultural samples (e.g., Robertson, Olson, Gilley, & Bao, 2008; Singh et al., 2007; Singhapakdi et al., 1994; Swaidan & Rawwas, 2008; Swaidan, Vitell, & Rawwas, 2003; Vitell et al., 2003; Vitell & Patwardhan, 2008).

Forsyth (1980, p. 175) stated "the two scales that make up the EPQ were found to have adequate internal consistency, were reliable over time, were not correlated with social desirability, were not related to scores on the Defining Issues Test". In their published meta-analysis of studies assessed the two aspects of personal moral

philosophy Forsyth et al. (2008) have identified more than 80 studies conducted with residents of more than 20 countries have used and demonstrated the cross-cultural validity of the EPQ. In general, empirical evidence indicates that both scales are internally consistent, stable over time, orthogonal to one another, and only slightly correlated with social desirability (Forsyth, 1980; Forsyth & O' Boyle, 2011; Forsyth et al., 2008).

This instrument, which has been widely used in the study of personal moral philosophy since its development, contains two subscales with ten items each, the first is designed to measure the idealism dimension, while the second measures relativism (see Appendix A: The English Questionnaire). All studies utilised EPQ to measure participants' personal moral Philosophy have used Likert-type scaling, however the metrics used, in some cases, differed from the original 9-points scaling, ranged from 5-points, 7-points to 9-points, to be consistent with other measures employed in the questionnaire, inconsistent with the original 9-points rating, the twenty items (see Appendix A) were presented with a scale based on a 7-points rating {from (1) "strongly disagree to "strongly agree"} to measure respondents' personal moral philosophy. While higher scores on the idealism scale indicate an absolute moral inclination by the respondent, higher scores on relativism scale indicate respondent's rejection of universal morality. Seven-points Likert type rating was utilised in audit ethics research (e.g., Kung & Huang, 2013) as well as several cross-cultural ethics research (e.g., Vitell et al., 2003; Vitell & Patwardhan, 2008). The Cronbach's alpha results of this measure will be discussed later in this chapter (see section 3.7.1).

### 3.6.2.4 Section C: Professional Commitment

The second part (C2) of section (C) of the English questionnaire and its equivalent in the Arabic version is designed to measure all respondents' (Egyptian external auditors) degree of commitment to their profession. With respect to this study's theoretical framework, a multi-dimensional conceptualisation of professional commitment (PC) was adopted. Furthermore, in the present study, only two dimensions of PC are to be examined in relation to external auditor's EDM: affective and normative dimensions. For operationalisation purposes, two different instruments were developed to measure PC. Earlier, The 15-items professional commitment questionnaire (PCQ), which was firstly developed and adopted by Aranya et al. (1981), has been used extensively by accounting researchers to operationalise PC. In their review of accountants' PC research, Hall et al. (2005) pointed out that more than 80% of the studies reviewed have used the PCQ to measure accountants' PC. Specifically, virtually all audit ethics studies, which attempted to examine auditors' PC in relation to their ethical attitudes, have consistently adopted the PCQ (e.g., Jeffrey & Weatherholt, 1996; Jeffrey et al., 1996; Kaplan & Whitecotton, 2001; Lord & DeZoort, 2001; Shaub et al., 1993). However, since Dwyer et al. (2000) tests provide support for a reduced five-item PC instrument, several researchers (e.g., Hall et al., 2005; Smith & Hall, 2008) have then questioned the 15-item scale's ability to capture the multidimensional nature of PC. Their findings indicated that PCQ is a measure of only a specific dimension of PC that is essentially the affective PC.

To avoid construct under-representation that is likely to occur when a measure fails to capture all important dimensions of a construct which threatens the construct validity, and to capture the multi-dimensionality of external auditors PC and consistent with the multi-dimensional conceptualisation of external auditors' PC within the current study, the multidimensional measure of PC developed by Meyer et al. (1993) was the one adopted here, this instrument has been successfully used and validated by numerous accounting studies at both domestic (e.g., Shafer et al., 2013a, 2013b; Shafer et al., 2016; Smith & Hall, 2008) and cross-cultural investigations (e.g., Snape et al., 2008).

Originally, the PC instrument consists of three subscales; each comprises six items, to measure the affective, continuance, and normative commitments that are theoretically represents the three-dimensional nature of PC. Only two dimensions were adopted in this study to measure external auditors' PC. A scale of agreement based on a seven-points Likert-type rating were provided with the adopted 12-items of PC scale (Six items each for Affective & Normative commitment) ranging {from (1) "strongly disagree to "strongly agree"} to measure respondent's PC where higher numbers represent greater commitment.

It should be noted the original scale has been modified to fit with audit professionals. Since the scale was designed for use with the nursing professionals, the reference point of some of the items has been changed from the nursing profession to the auditing profession. Prior research examined auditors' PC has adopted a similar procedure as appropriate for the auditing context (e.g., Shafer et al., 2013a; Shafer et al., 2013b; Shafer & Simmons, 2011b; Shafer et al., 2016; Smith & Hall, 2008; Snape et al., 2008). The Cronbach's alpha results of this measure will be discussed later in this chapter (see section 3.7.1).

### 3.6.2.5 Section D: EDM Stages and Moral Intensity Dimensions

Section D of the questionnaire was designed to measure the three EDM stages and moral intensity dimensions. In the present study, four audit ethics scenarios were used to determine the level of external auditors' ability to perceive ethical dilemmas (ethical recognition), their ethical agreement with unethical actions described in the scenarios (ethical judgment), their intention toward committing unethical acts (ethical intention), as well as their perception of diverse dimensions of the moral intensity of the ethical issue described in each scenario (perceived moral intensity). Each scenario presents an ethical dilemma and describes an action that has been taken in response to the dilemma. All the issues included were clear and represent unethical actions of varying degrees taken by the hypothesised auditor. Fifteen items accompanied with each scenario have been designed to obtain respondents' EDM stages as well as perceived moral intensity associated with each scenario. All measures were operationalised using a 7-point fully labelled agreement scale ranging {from (1) "Strongly disagree to (7) "Strongly agree"}.

## 3.6.2.5.1 Scenarios

Scenarios are widely used as an essential part of instruments adopted by business ethics researchers, and in EDM studies specifically. Alexander and Becker (1978, p. 94) defined scenarios as "short descriptions of a person or a social situation which contain precise references to what are thought to be the most important factors in the decision-making or judgment-making processes of respondents". Commonly, a scenario is followed by questions to obtain participants' reactions to the issues described, which, in a research context, represent the data for subsequent analysis (Grønhøj & Bech-Larsen, 2010). Thus, the use of scenarios in survey research "makes possible an analysis of the effects on people's judgments by systematically varying the characteristics used in the situation description" (Alexander & Becker, 1978, p. 94). Scenarios have been used in several research disciplines employing various methodologies including qualitative, and quantitative, in business, and non-business areas (Grønhøj & Bech-Larsen, 2010; Schoenberg & Ravdal, 2000; Wason, Polonsky, & Hyman, 2002), within business ethics research specifically, scenarios approach commonly "involving presents the respondent with a short story describing an ethically questionable issue and then asks the respondent to evaluate this situation on various ethical scales" (Tsalikis, Seaton, & Shepherd, 2008, p. 615).

The use of the scenarios is well documented in the business ethics literature as suitable and commonly used research tool, particularly, in EDM studies at both domestic and cross-nations/cultural levels (Craft, 2013; O'Fallon & Butterfield, 2005; Oumlil & Balloun, 2009; Tsalikis et al., 2008). In their review of marketing studies employing scenarios, Wason et al. (2002) identified 85% of the studies focused on ethical issues. On several grounds, this intensive use could be justified. First, due to the sensitive nature of ethics research, scenarios are hypothetical and involve the use of fictitious other. This depersonalisation makes scenarios specifically appropriate to study a sensitive topic such as ethical decisions and/or judgments rather than asking respondents direct questions regarding their ethical behaviour (Robertson, 1993; Schoenberg & Ravdal, 2000). Secondly, scenarios, through offering multiple contextual and situational aspects, brings more realism to ethics research as it presented approximate real-life ethical situations (Alexander & Becker, 1978; Barnett et al., 1994; Robertson, 1993). Realistic scenarios presented to participants demand a minimal effort for a response (Robin et al., 1996). Thirdly, scenarios permit business ethics researchers to control and standardise stimuli across respondents (Alexander & Becker, 1978; Lampe & Finn, 1992; Shafer et al., 2001; Weber, 1992). As argued by Shafer et al. (2001), it is crucial to provide the respondents with a clearly defined ethical dilemma (scenario) to ensure that all subjects are responding to the same stimulus, thus improving measurements' validity, reliability and comparability, as well as providing greater ease of replication (Wason et al., 2002). Fourthly, the use of scenarios helps to reduce social desirability response bias that is likely to occur in ethics research especially when scenarios are presented in the third person (Choong, Ho, & McDonald, 2002; Kennedy & Lawton, 1996). Finally, due to the difficulties related to empirically observing participants' EDM specifically, without signaling them to the fact that they are being observed, as well as the practical struggles related to observing any actual behaviour of business professionals in general, the use of scenarios could help researchers to bypass these obstacles associated with observing ethical behaviour in real business setting (Robertson, 1993; Wason et al., 2002). The use of scenarios in business ethics research, however, has been subjected to many criticisms involving the vagueness and unrealism of the scenarios employed as well as failure to control for social desirability response bias (Randall & Gibson, 1990; Weber, 1992).

Like all research tools, scenarios must be appropriately designed. A number of basic issues must then be taken into consideration, involving scenarios construction, wording, number of scenarios to be employed, and whether scenarios should be adapted from earlier research or new ones should be developed. In these respects, business ethics scholars, regarding the use of scenarios for instrumentation in EDM research, have consistently provided several useful recommendations and suggestions. With respect to the scenario construction, Wason et al. (2002) and Weber (1992) have provided several useful proposals, firstly, scenarios should be assessed and adjusted to ensure their plausibility and acceptability by respondents, targeted participants should find the scenarios interesting and reasonable as well as presenting a realistic ethical issues within the context of the research area. Secondly, scenarios should be made adequately, but not overly, detailed by avoiding too much detail that could overburden the respondents, or insufficiently detailed, which could make them appear vague and ambiguous to respondents. Thirdly, scenarios should be framed and worded precisely to ensure that their wording is equivalent among all participants. Finally, manipulated variables should be made obvious to make it noticeable to the respondents. With respect to the number of scenarios to be used, Weber (1992) noted that while researchers ability to manipulate research variables could be limited when too few scenarios are used, too many scenarios could lead to information overload and fatigue

for the respondents which could then harm the overall response rate.

A reasonable number of scenarios should thus be employed. Regarding the use of preexisting scenarios, several researchers (Robertson, 1993; Wason et al., 2002; Weber, 1992) recommend the use of pretested scenarios; they argued that using scenarios that are tested and evaluated in prior research ensures their realism and plausibility. Cohen and Bennie (2006) added that the use of pre-developed context-based scenarios ensures that they captured ethical dilemmas pertinent to the current research context as well as enables direct comparison of results.

Consistent with recommendations offered by prior researchers concerning the appropriate design of scenarios, in this study, a considerable care was taken to develop challenging yet realistic scenarios. Four external audit ethics scenarios were employed to assess moral intensity and participants' EDM stages, the use of four scenarios will better provide full examination of the hypothesised relationships among research variables than could not be possible from only one or two dilemmas (Curtis et al., 2012; Svanberg, 2011). They were varied based on the nature of the ethical issue described. These four scenarios were adapted from prior audit ethics research and have been validated and tested through numerous studies involving both domestic and cross-cultural samples. All scenarios were kept to between 150 and 250 words in order to reduce the potential of response bias based on the length of the scenario. Consistent with the approach taken in prior ethics research (e.g., Cohen & Bennie, 2006; Cohen, Pant, & Sharp, 1996) to control for social desirability response bias, which is common in ethics research, the four scenarios used in the present study are phrased in the third person tone, the respondent was invited as part of the scenarios, and the unethicality embedded in each, entails an action taken by a respondent's colleague (as in scenario B and C) or superior (as in scenario A and D). Asking respondents about their opinion concerning action taken by the auditor portrayed in the scenario will help to reduce social desirability response bias that is likely to occur when they are asked to report their own behaviour (Kennedy & Lawton, 1996).

For the purpose of ensuring realism and plausibility, the four scenarios were presented to two audit academics, the first was previously an experienced external auditor in the UK and currently a fellow of the Institute of Chartered Accountants in England and Wales (ICAEW). The other is an Egyptian professor of Auditing, independent of the research, who holds a PhD in Auditing from UK, and formerly an external auditor and a fellow of the Institute of Internal Auditors in the UK.

Additionally, two audit partners from two of the Big-X audit firms in Egypt, one of whom is a member of the Egyptian Auditing standards Committee and both are board members of the Egyptian Society of Accountants and Auditors (ESAA), have reviewed these vignettes for their appropriateness for operationalisation in the Egyptian context, and to ensure that they represented a variety of ethical issues.

Furthermore, within the questionnaire piloting process a sample of 10 accounting academics in a British university (University of Huddersfield) was presented with the four scenarios and asked about whether the scenarios appear realistic to the targeted population (external auditors). After responding to several recommendations and feedback received concerning the wording of the scenarios to make them appear simpler and understandable to the respondents, the results strongly support the use of these four scenarios as realistic and appropriate within the research context.

*The first Scenario, client pressure for aggressive financial reporting*, entails one of the most common ethical dilemmas facing external auditors (Finn et al., 1988); some of the highly publicised audit ethics scandals (e.g., Enron and Xerox) result from auditor's failure to exercise independent judgment when facing client pressure for alteration of financial statements. Several criticisms were frequently directed to external auditors for failing to exercise independent judgment when faced with client pressure for aggressive financial reporting (Schuetze, 1994). For instance, researchers have argued that provision of non-audit services to the client could increase the audit firm's dependency on the client (Ahson & Asokan, 2004; Craswell et al., 2002).

The scenario involves an ethical issue where an auditor faces a client pressure to give an unqualified audit opinion on a set of financial statements. The auditor, though, had serious objections related to the sufficiency of the provision for doubtful accounts. This results in disagreement with the client. Since the client is of high value to the audit firm in terms of provision of non-audit services, to resolve this issue, the auditor approves the client explanation and his decision was in favor of the client by issuing an unqualified audit opinion. This scenario was originally developed by Shafer et al. (1999) in two versions, the authors have manipulated moral intensity dimensions, by varying the monetary amount of the misstatement, and the likely use of the financial statements. The high intensity version was the one adopted here.

To stimulate the respondent's perception of the probability of effect and temporal immediacy, the scenario indicates that the audit balances of the provision as well as the inventory will influence a negotiated sale price of the company. Regarding the misstatement's monetary value, the original scenario shows that the provision is understated by an amount equivalent to 8% of pretax income. Since this could be regarded as immaterial by some participants, and in order to highly stimulate the respondents' perception of the magnitude of consequences, it has been modified to be L.E 400,000 (8% of total current assets and 80% of profit before tax). Respondents should regard this amount as highly material (Ketchand et al., 1999).

It should be noted that other minor modifications of the wording of the scenario have been made to make the scenario appear simpler, understandable, and familiar to Egyptian participants. This scenario, since its development, has been adopted and validated by prior audit ethics research at both domestic (e.g., Shafer et al., 2001) and cross-cultural levels (e.g., Karacaer et al., 2009).

The Second Scenario, Premature sign-off (PSO) (or "cutting corners"), deals with an activity that auditors could engage in to manage what they perceive as tight time pressure. It entails an auditor who signed off a required audit step, not covered by another, without actually completing the work or noting the omission. PSO has been a topic of interest in the audit literature for over three decades, and has been investigated widely in different countries. It has been regarded as international phenomenon that spans international borders and continued to interest audit profession in general (Hyatt & Taylor, 2013). To date, with the exception of the current study, no prior studies have examined similar issues in developing contexts. Examining those issues in different cultures among different firms may add significantly to the auditing literature (Hyatt & Taylor, 2013).

External auditing profession is considered one of the labor-intensive professions, increasing the quality of the audit involves assigning more time to the audit, thus increasing the cost of the audit. Balancing the cost and quality could put auditors under tight time budgets. Findings reported by audit researchers (e.g., Coram, Glavovic, Ng, & Woodliff, 2008; Coram, Ng, & Woodliff, 2004; Herrbach, 2001; Kasigwa, Munene, Ntayi, & Nkote, 2013; Otley & Pierce, 1996; Sweeney & Pierce, 2011) pointed out that external auditors, in order to cope with excessively tight time constraints, engage in activities generally labelled as "Audit quality threatening behaviours or dysfunctional auditors' behaviours". Engaging in these behaviours may increase the risk of issuance of incorrect audit opinion or other flawed results of audit engagements (Johansen & Christoffersen, 2017).

The scenario describes an audit senior who is facing a tight time pressures and signs off an accuracy test of inventory as completed in the audit programme without attempting the test at all. Sweeney, Arnold, and Pierce (2007) have originally developed this scenario. The original version has been constructed with four hypothetical and dysfunctional behaviours previously reported in prior research, including the PSO which is the one adopted here. One reason behind its inclusion is that although, all hypothetical actions represent unethical behaviours, findings reported by researchers (e.g., Coram et al., 2008; Shapeero et al., 2003; Sweeney et al., 2010) who have adopted similar cases indicate that PSO was evaluated as both the most commonly found in audit practice, as well as the most unethical as judged by respondents. Since its original development, this scenario has been continuously adopted and validated in prior audit ethics research and found to be realistic and acceptable within domestic (Arnold et al., 2013; Pierce & Sweeney, 2010) and cross-

cultural contexts (Sweeney et al., 2010; Sweeney et al., 2013). Recent research indicates that PSO is a continuing problem in external auditing context (Hyatt & Taylor, 2013; Johansen & Christoffersen, 2017).

The Third Scenario, employing former auditors, deals with what is referred to as the "revolving door" problem. It deals with a significant dimension regarding external auditor independence. It occurs when the audit client subsequently employs engagement team members. The scenario describes a case where an audit manager, while performing audit duties, has been offered an employment in a key audit client position. Ethical rulings regarding auditors' independence in many countries have established a cooling-off period before an auditor can accept employment in a key client position. For example, section 206 of the Sarbanes-Oxley act has established a one-year cooling off period before a member of the engagement team can accept employment in key client positions. In the UK, ethical rulings of code of professional conduct of ICAEW establish a two-years cooling off period before a member of the engagement team can accept employment in a key client position. The longest cooling-off period has been enforced by the Egyptian Companies Act No. 159 of 1981, which establishes a three-years cooling off period for the engagement partner to accept employment in a key client position. Although it may appear legal to the Egyptian respondents, the scenario entails an unethical issue. It entails an audit manager, who has been offered an employment as a financial controller at client's company, continues in his role as an audit manager without reporting the offer to the engagement partner, which threatens the his/her independence.

In this scenario, the concern is that being offered an employment by the auditee is regarded as impairment to auditor's independence, according to ethical rulings, an auditor shall remove him/herself from the engagement until the offer is no longer being sought or rejected to maintain the appearance of his/her integrity and independence. It is noteworthy that Egyptian ethical rulings stated that only the engagement partner is prohibited to accept employment in the client company. Other members of the audit teams are not required to abide by such ethical rulings. This scenario was originally developed by Kaplan and Whitecotton (2001), and has been

adopted and found realistic in Curtis (2006) study. Most recently, this scenario has been adopted by Alleyne, Haniffa, and Hudaib (2016) in a study to develop an external auditors' whistle-blowing decision making protocol.

**The Fourth Scenario,** Maintaining confidentiality of client information; confidentiality principle is generally regarded as a vital ethical ruling for the external audit practice, it addresses an ethical issue of high importance within the accounting profession (Alleyne, Weekes-Marshall, Estwick, & Chaderton, 2014). Confidentiality principle is a core element for the practice of the external audit profession, what makes an audit client willing to provide all necessary information for auditing work is the trust that the external auditor will maintain the confidentiality of the information provided.

The scenario entails an auditor that provides external audit services to two clients; one of them is currently financially dependent upon the other. The auditor has learned in the course of the independent client audit that it is facing a financial distress and the potential for bankruptcy is high. Since this may have a detrimental effect on the dependent client financial position and the auditor may consider issuing a going concern opinion, the hypothesised auditor in the scenario has warned the dependent client about the impending bankruptcy of the independent client, which indicates a breach of the client confidentiality rule. This scenario was originally developed and tested in the first accounting ethics article (Loeb, 1971), and it has been adapted and retested in several other studies to examine auditors ' EDM (e.g., Adams et al., 1995; Buchan, 2005; Claypool, Fetyko, & Pearson, 1990; Cohen et al., 1995a, 1995b).

Originally, this scenario has been developed as the auditor, for no reason, has disclosed the confidential client information, and this could appear less realistic to survey respondents. Thus, to make this scenario appear more realistic to the respondents, strict compliance with the code by not disclosing the impending bankruptcy of the audit client was set to affect the audit opinion to be expressed on the other client, which in turn could have a major impact on a group of outside stakeholders. This placed the hypothesised auditor in an ethical dilemma about how to

apply the rule of confidentiality. Arnold, Bernardi, and Neidermeyer (2005); Arnold, Bernardi, Neidermeyer, et al. (2005) have adopted similar modification to the scenario. This scenario has been adopted and validated in more recent audit ethics research, it has been found realistic in developing cultural context such as China (Shafer, 2008), as well as developed ones (Douglas et al., 2001). Most recently, this scenario has been adopted and validated in a study of accounting students' ethical intention (Alleyne et al., 2014).

It should be noted here that several amendments have been made to the four scenarios. In order to increase familiarity and acceptability of the scenarios to the respondents, the names of all actors in the four scenarios have been modified within the Arabic version. Fifteen items followed each scenario to measure respondent's EDM stages as well as perceived moral intensity dimensions, after evaluating the hypothesised auditor's action described in the scenario, the respondents were asked to indicate their agreement or disagreement with each item on a 7-points fully labelled Likert scale.

### 3.6.2.5.2 EDM Stages

Following each scenario, three single-item measures were adopted to elicit respondent's EDM stages. For the *ethical recognition* question, a single-item, direct measure of ethical recognition was adopted and presented to external auditors, by asking them to respond to whether the situation described in each scenario involves an ethical concern. A high (low) score on the statement "the situation above involves an ethical problem" (Singhapakdi, Vitell, et al., 1996) indicates a higher (lower) recognition that the ethical situation described presents an ethical issue for the respondent (external auditor). Similar items have been successfully used by past research to measure respondents' ethical recognition (e.g., Barnett & Valentine, 2004; Fleischman, Valentine, & Finn, 2007; May & Pauli, 2002; Valentine & Barnett, 2007; Valentine & Hollingworth, 2012; Valentine & Bateman, 2011).

Regarding the *ethical judgment*, external auditors were asked to respond directly to whether the auditors' action described in the scenario should/should not be done. Respondents were asked to indicate on the 7-point Likert scale, the extent to which

they agree with the statement "(The auditor) should not do (the proposed action)"(Leitsch, 2004). A lower (higher) score on this item reflect a lower (higher) ethical judgment as it indicates the action presented in the scenario is regarded as unethical. A similar item has been successfully adopted in prior ethics research to measure respondents' ethical judgment (Leitsch, 2006; Sweeney & Costello, 2009; Yang & Wu, 2009).

For the *ethical intention* question, respondents were asked directly to indicate their agreement or disagreement concerning the possibility that they would act as the auditor did as described in the scenario. A higher (lower) numerical score on the scale of agreement to the statement "I would act in the same manner as (the auditor) did in the above scenario"(Singhapakdi, Vitell, et al., 1996) indicate less (more) ethical intentions by the respondent to the action. Since the external auditor's action taken in each scenario represents a questionable, or even unethical, behaviour, as opposed to an ethical intention, response to this statement was reverse scored for purposes of testing the study's hypotheses.

Although the use of multiple-item measure for EDM stages may improve the measure reliability, several business ethics researchers have adopted a single-item measure to elicit respondents' ethical recognition (Cohen et al., 1996; Leitsch, 2006; May & Pauli, 2002; Simga-Mugan et al., 2005; Singhapakdi et al., 1999; Singhapakdi, Vitell, et al., 1996), judgment (Haines & Leonard, 2007a, 2007b; Musbah et al., 2016; O'Leary & Stewart, 2007; Singh et al., 2007), and intention (Barnett, 2001; Oumlil & Balloun, 2009).

### **3.6.2.5.3 Moral Intensity Dimensions**

Prior research has identified two ways to operationalise the moral intensity construct, either to manipulate the moral intensity of the ethical issue within diverse versions of scenarios presented to respondents on a between-subjects basis (e.g., Shafer et al., 1999, 2001), or to directly measure the moral intensity via scale items following the scenario introduced to respondents (May & Pauli, 2002; McMahon & Harvey, 2007; Singh et al., 2007; Singhapakdi et al., 1999; Sweeney & Costello, 2009). Morris and McDonald (1995) found that perceived moral intensity, measured by items designed

to tap the six moral intensity characteristics posited by Jones (1991), often differed from manipulated moral intensity.

Perceived moral intensity six-item scale that was developed by (Singhapakdi, Vitell, et al., 1996), single item for each moral intensity dimension, has been widely adopted and validated in prior ethics research in both domestic and cross-cultural levels (Burnaz, Atakan, Serap, Topcu, & Singhapakdi, 2009) within diverse areas of business ethics research, including marketing and accounting. It has been adopted to elicit perceived moral intensity in a middle-eastern (Morocco) context similar to the Egyptian context (Oumlil & Balloun, 2009).

The dimensions of moral intensity were measured using items designed to elicit the moral intensity characteristics based on (Jones, 1991) and adapted from prior ethics research (Singh et al., 2007; Singhapakdi, Vitell, et al., 1996; Sweeney et al., 2013). Participants were asked to report their level of agreement to each item on a 1-7 Likerttype scale (1= Strongly disagree, 7= Strongly agree). Single-item measures as well as multiple-item measures were adopted, based on Singhapakdi, Vitell, et al. (1996) and Sweeney et al. (2013), multiple-item measures includes first: Magnitude of consequences was measured with a four-item scale: "the overall harm (if any) as a result of the (auditor's) action would be very small" (reverse-scored) (Singhapakdi, Vitell, et al., 1996); "(the auditor) himself would be significantly harmed as a consequence of this action"; "the audit firm where (the auditor) is employed would be significantly harmed as a consequence of this action"; "stakeholders of the audit client would be significantly harmed as a consequence of this action" (Sweeney et al., 2013). Second: Social consensus was measured with a three-item scale: " your superiors would agree that (the auditor's) action is wrong"; " most auditors at your level in your firm would agree that (the auditor's) action is wrong; "most members of the audit profession in general would agree that (the auditor's) action is wrong (Sweeney et al., 2013). Thirdly, temporal immediacy was measured with a two-item scale: perceived harm in the short term "(the auditor's) action will not cause any harm in the immediate future" (reverse-scored) (Singhapakdi, Vitell, et al., 1996); and perceived harm in the long term "(the auditor's) action will not cause any harm in the

long term" (reverse-scored) (Sweeney et al., 2013). Using multiple item measures for those moral intensity dimensions will enhance the content validity of the measure. The remaining three moral intensity dimensions were each measured by a single-item measure based on Singhapakdi, Vitell, et al. (1996). Concentration of effect was measured by agreement to the statement "(the auditor's) action will harm very few people, if any". Degree of agreement to the statement" (auditor's) action would be wrong if he/she is a personal friend of the person(s) harmed" was adopted to measure Proximity, and probability of effect was measured with the statement" (reverse-scored).

### 3.6.3 Questionnaire Translation

Adopting questionnaires across languages is a very common strategy in cross-cultural research. Adopting questionnaires that is developed in a language and to be administered in another is, however, subject to many risks that could threaten the validity and reliability of reported findings. Therefore, in this study, it is a matter of concern to ensure that different language versions of the questionnaire are equivalent and translations of one another would not measure somewhat different constructs and are not different in terms of difficulty and familiarity to intended respondents. It is argued that without equivalence, within cross-cultural research, inferences assumed pertinent to results of differences and/or similarities between cultures on the research constructs being measured may actually be based on translation errors (Wang, Lee, & Fetzer, 2006). Since lack of equivalence of research instruments presents a potential insidious problem in cross-cultural research, several efforts have then been devoted in an attempt to address this methodological problem (e.g., Brislin, 1986; Nasif, Al-Daeaj, Ebrahimi, & Thibodeaux, 1991; Sireci & Berberoglu, 2000).

Arabic is considered the dominant language in Egypt. All targeted participants (Egyptian external auditors) are Arabic native speakers. Culture and linguistics wide variations between English and Arabic make instrument translation a matter of high concern. A considerable attention has been given in order to alleviate methodological flaws resulting from instrument translation errors. Within this respect, extant literature provided two common procedures to develop a translation of research instruments, the translation-back translation procedures, and the committee approach in which a group

of people with different areas prepare a translation (van de Vijver & Tanzer, 2004).

The current study's questionnaire was firstly designed in English. Words and concepts that are difficult to translate or are specific to the English culture was removed, it is argued that culture decentering of the instrument could enhance its translatability (Vijver & Leung, 1997). Moreover, scenarios as well as several items in the questionnaire were modified in response to several guidelines set by Brislin (1986) to optimising the translatability of questionnaire items including the use of short and simple sentences, employing the active rather than the passive voice, repeating nouns instead of using pronouns, use specific than general terms, and avoid metaphors and colloquialisms. The questionnaire was then pilot tested among English language speakers at the University of Huddersfield in February and April 2014 (see section 3.6.4 below). As a result, some additional changes to the wording of some of the items were made.

The most commonly applied translation technique is the translation-back translation; it has been consistently adopted by many cross-cultural ethics studies (e.g., Burnaz et al., 2009; Shafer, 2008; Singh et al., 2007; Stedham & Beekun, 2013; Vitell et al., 2003; Vitell & Patwardhan, 2008; Westerman et al., 2007). The English version of the questionnaire was literally-word to word translated by a bilingual expert and professional translator in Egypt to perform the initial translation. It should be noted that, in order to overcome the problems related to literal translations regarding the less emphasis on connotations, naturalness and comprehensibility of the texts, the professional translator employed in this study, did not know that her work will be evaluated by back translators (Vijver & Leung, 1997).

Based on a review of the ethics and culture literature, the questionnaire was then back translated into English by a bilingual auditing professor and then the questionnaire was sent to an auditing lecture who is native bilingual Egyptian auditing lecture in a British university to compare the back translated version to the original English version for efficacy and consistency, and to ensure that the Arabic version is equivalent to the Egyptian audit context. In conducting the translations, the requirements of Nasif et al. (1991) and Brislin (1986) have been met, who emphasise that equivalence of meaning is more important than direct translation. Thus, individuals who understand the auditing ethics context have been employed to ensure that the notions contained in the scenarios and variable measures were appropriately and similarly communicated in Arabic language.

Although, it is a matter of difficulty to guarantee translation accuracy with absolute certainty, the procedures adopted here for translation were considered rigorous enough to provide quite confidence that the resulting Arabic questionnaire are both linguistically appropriate and culturally relevant. They are equivalent in meaning across English and Arabic languages. Both versions of the questionnaire were included in the appendices.

#### 3.6.4 Questionnaire Piloting

As a final step for the questionnaire development before administering to research participants is pretesting which is commonly used to ensure the reliability and validity of the measures employed in the questionnaire. It helps ensuring the flow of questions are reasonable, and it helps in identifying questions that could make the participants feel uncomfortable, questions that are not understandable to the study's participants (Bryman & Bell, 2011). For the current study in particular, piloting the questionnaire was crucial. Testing the questionnaire that investigates a sensitive issue as EDM may help in identifying questions that participants may be unwilling to answer. Keeping such questions may harm the overall response rate of the study. Bryman and Bell (2011) emphasises the significance of piloting, particularly in surveys at which a self-administered questionnaire is employed where an interviewer that could clear up ambiguous items will not be present. Thus, the questionnaire was pre-tested before being presented to the actual sample of the study.

While Randall and Gibson (1990) argued that pretesting the questionnaire shall be conducted using members of the target population, Bryman and Bell (2011) maintained that piloting shall not be undertaken among the target population of the study. They recommended that piloting should be carried out on a sample comparable to, but not a part of, the members of the target population from which the sample of

the full study will be selected; representativeness of the subsequent sample of the full study may be threatened if the study instrument was piloted among a sample of the study's population. In this regards, some scholars (Cooper & Schindler, 2008; Oppenheim, 2005) have recommended the use of friends, research colleagues and other professional groups that are similar to the targeted population of the full study, at least to assess its face validity. Saunders et al. (2009) maintained that piloting the questionnaire among friends and family is better than not at all.

In this study, external auditors working in Egypt were targeted for participation. Piloting the questionnaire used to collect the research data was conducted for several purposes; firstly, as the current study employs a relatively lengthy questionnaire, it will be useful to ensure lengthiness will not be something that may threaten the response rate, and to ensure that time offered to participants is reasonable. Secondly, investigating EDM may appear threatening to some participants. Thus, piloting was conducted to identify questions or group of questions that participants perceive to be sensitive as keeping threatening questions may harm the survey response rate. Thirdly, to identify questions that are not understandable to study participants and to ensure that questionnaire items are similarly understood by all respondents. Finally, to examine the appropriateness and plausibility of the scenarios employed in the questionnaire.

The pretesting was conducted in several stages. As a first stage, after designing the questionnaire in English, and the feedback provided by the study's supervisors, the full English draft was presented to ten accounting academics of the University of Huddersfield within the accountancy and finance department. Mostly, they were members of the Financial Ethics and Governance Research Group within the business school. Valuable comments and several suggestions concerning the ordering of questions and the wording of some of them as well as their presentation and format were offered, specifically, they confirmed that scenarios employed are easy to read and appear realistic to the study's participants. Second, the full English version of the questionnaire was sent to five experienced external auditors, via the study's co-supervisor, working for an audit firm located in Leeds in the UK, of them, three were

associate/fellow of the ICAEW, one is a fellow of ACCA, and the other was in training contract. The feedback provided was very beneficial as it resulted in some modifications of the wording of some of the scenarios to enhance its plausibility and realism as well as suggestions concerning the ordering of the sections and rewording of some of the questionnaire items.

Secondly, after careful translation of the English version, the full draft of the Arabic questionnaire was presented to one of the auditing academics in Egypt whose main research interest is behavioural aspects of auditing and the area of ethics is one of his specific interests. He holds a PhD in auditing and has several years in supervising and examining PhD dissertations in both British and Egyptian universities. The aim was two-fold, to confirm the translation, and to provide feedback concerning the appropriateness of the questionnaire items and scenarios for operationalisation in the Egyptian context. A considerable feedback was then provided during a personal meeting held, resulting in minor modification in both the English and Arabic versions. Moreover, both versions were also sent to an Egyptian auditing academic whose research interests includes primarily external audit regulation working at University of Bradford and holds a PhD in auditing. After two subsequent audio conferences, the feedback was very significant as it resulted in reordering some sections in the questionnaire and some modifications regarding the scenarios wording. He confirmed that the items presented as well as scenarios included are easily understandable in the Egyptian context. He further confirms that questionnaire translation was made appropriate and culturally equivalent.

For piloting among practitioners, the third stage involve presenting the full draft of the Arabic questionnaire to five highly experienced audit practitioners, two of them are board members of the Egyptian society of accountants and auditors (ESAA) and one of them is also an accounting academic who holds a PhD in accounting from the UK and the other was formerly appointed as a member of the Egyptian Ministerial Committee for developing auditing Standards in Egypt in 1997. During personal meetings with the researcher, Comments regarding wording of the cover letter as well as suggestions concerning the wording of some of the items in the questionnaire were

provided. They further confirm that the scenarios employed are clear, realistic, and understandable by the targeted survey respondents (external audit practitioners).

Furthermore, as a final stage of piloting, to ensure that the instrument was valid for the Egyptian external audit environment, ten copies of the full Arabic questionnaire was handed to the researcher's brother who is currently employed as a senior auditor in one of the Big-X firms in Egypt, he was asked to hand out the questionnaire to his experienced colleagues and superiors who are interested to help in the piloting process. He was also asked to explain to them the purpose of the study and note whether they are interested in the research topic. Based on completion and receipt of the ten questionnaires, feedback provided was found to be of high value. This was followed by phone interviews with four of the recipients (who agree to engage in a phone interview) to obtain additional information regarding the suitability and reliability of questionnaire items; how long the questionnaire took them to complete, the clarity of instructions, if there any questions they felt uncomfortable to complete, whether the layout clear and presentation was attractive, as well their comments concerning scenarios employed, and any other problems they have experienced, as well as issues related to the layout and presentation of the questionnaire.

Valuable suggestions, comments, and several recommendations were obtained from the piloting phase; they were all of high value to the development of the questionnaire. Regarding the length of the questionnaire, it appeared that time needed to complete the questionnaire was slightly longer than expected (it was earlier expected to be from 15 to 20 minutes, after piloting it has been adjusted to be from 20 to 30 minutes), so it has been adjusted to reflect the time taken by the pretests respondents. Additionally, it should be noted that the statement "I have never read sexy books or magazines" has been replaced by the statement "I never take credit for other people's achievements". Reasons for this modification grounded on pretesting results that suggest an anticipation that the former might appear offensive to some respondents in the Egyptian context (especially female participants) which might harm the whole survey's response rate. All other suggestions, comments, and recommendations were considered resulting in the final draft of the questionnaire enclosed in the appendix. This piloting process also helps to establish the face validity of the questionnaire; it helps ensuring that items in the questionnaire are understandable by targeted participants. As such, several amendments have been made to the questionnaire layout and presentation and the wording of some of the items was done to enhance the face validity of the questionnaire.

#### 3.6.5 Questionnaire Administration

Administering questionnaire to research participants is one of the important stages in the research process. It is argued that questionnaire administration could have a considerable impact on the survey response rate (Bryman & Bell, 2011; Collis & Hussey, 2009; Cooper & Schindler, 2008). This section explains the administration and duration of the distribution and collection of the questionnaire survey.

Methods of questionnaire administration to targeted respondents are multiple. Researchers can conduct face-to face or telephone interviews for collecting survey data and, alternatively, questionnaires could be self-administered to respondents via postal mail, fax, computer, email, or internet media (De Vaus, 2002). Each mode has its own strengths and limitations. Some methods are better than others in terms of several considerations, that while face-to-face and telephone interviews tend to achieve higher response rates than online or postal surveys (De Vaus, 2002), self-administered surveys are the lowest cost option for a survey research (Cooper & Schindler, 2008).

In this study, for several reasons, self-completion questionnaires have been adopted; first, given the inherent sensitivity of the research topic (EDM), providing anonymity to participants was a matter of high concern, this will be achieved only if questionnaires are self-completed rather than the use of personal or telephone interviews. Respondents may feel that their anonymity has been threatened when using telephone or personal interviews. Secondly, self-completion questionnaires could minimise the issue of social-desirability response bias that may threaten the validity of EDM research, respondents may provide socially desirable answers when an interviewer is present. Thirdly, self-administering questionnaires have been traditionally seen as the easiest and cheapest option (Cooper & Schindler, 2008) given

the limited time and costs available for the researcher. Significant effort has been exerted in designing the questionnaire in order to overcome poor response rate that are likely to be achieved under this mode of administration.

In this study, external auditors working for 19 audit firms in Egypt were targeted for participation. 21 offices of 19 international audit firms in Egypt including the Big-X firms were selected as a communication port with the targeted participants. Gaining access to external auditors working for audit firms is often limited and somewhat increasingly restricted (Power & Gendron, 2015) due to several reasons including, confidentiality issues and the daily time pressures auditors face, especially when access is tried out in the audit busy season which is normally starts at the end of October till the end of April each year. Not all firms approached and agreed to participate at the same time, thus the collection process was done on several occasions. The collection process started near the start of the audit busy season 2014 (September 2014) and started with the Big-X firms.

Approaching firms for negotiating the access to participants was subject to the incontact partner/manager convenience and approval. Some firms were approached at September 2014 while the majority of firms were not approached until May-June 2015 after the end of the audit busy season of the first half of 2015. In these firms, the managing partner/audit lead audit partner or in some cases the assurance services partner or ethics partner were contacted in an initial meeting to discuss the research objectives and to provide a list of their employed external audit staff.

Within the initial meeting with the managing director or Lead audit partner/manager (contact person in each firm), as a matter of respect and professionalism and to emphasise the survey is for academic purposes, they were handed out a signed letter, printed on the University of Huddersfield headed paper, explaining the purposes and the research implications for practice, the names of those managers was obtained through personal contacts of the researcher and from the websites of the targeted audit firms. After a series of meetings, the aims and the practical implications of the current research were explained and emphasised. The deadline date for collecting the

questionnaire was also emphasised to encourage response. In response to the researcher's request, they have agreed to deliver the packages of the questionnaire to external auditors working at their firms at all levels. The number of packages then delivered to audit firms was based primarily on the figures those partners have provided regarding the external auditors currently working at their firms.

In this study, human subjects are being used, thus guidance and permission was sought and obtained from the University of Huddersfield Business School ethics research committee to ensure that the instrument meets the ethical guidelines of social research. The covering letter and the questionnaire was then translated, piloted, and proofread, they were then printed out and photocopied, and the enclosed envelopes were designed and printed out. Rather than coloured paper, the questionnaire was printed out on white papers, research suggests no significant differences exist between the response rates of white and coloured paper questionnaires (Hartley & Rutherford, 2003). Each questionnaire was printed out on an A3 size paper, then folded into a booklet resulting in an A4 page size booklet that has 10 printed pages including the cover page.

Each printed-out booklet along with an envelope, in which participants were asked to seal the filled questionnaire in, were packed together in a clear plastic package to be ready for distribution. In this study, given the very limited reliability of the postal services in Egypt, and the use of mail surveys is not common in Middle-Eastern countries (Sidani et al., 2009), location-based distribution method, rather than postal delivery that would pose considerable uncertainty, was adopted. Because of difficulty to reach targeted respondents (external auditors), a drop-off, pick-up technique was adopted as it is frequently used in the Middle-Eastern countries (Rice, 2006).

Again, due to the restrictions made by many audit firms regarding the access to the audit staff (Power & Gendron, 2015), the researcher was not directly involved in the administration process of the questionnaires. The questionnaire packages were handed out personally to the managing partner for administering to his/her fellow auditors. Considering the heavy workload of auditors, the designated timeframe for response

was set at eight weeks since delivery of the questionnaires to the in-contact partner, with follow-up reminders when necessary after four weeks since distribution. At the end of the eighth week since initial distribution, a second visit to the audit firm has been paid by the researcher to collect the filled questionnaires. The deadline for completing the survey was provided to the contact person in each audit firm so as to instruct prospective respondents to fill in the questionnaire before deadline. This has encouraged an immediate response obtained from external auditors.

In total, the questionnaire was administered to 650 external auditors, a total of 408 questionnaires were received. A review of the received questionnaires led to 15 questionnaires being dropped as unusable. Consequently, a total of 393 usable questionnaires were subject to subsequent analysis. This represents a reasonable usable response rate of approximately 60.5%. Although the response rate appears more than satisfactory and compares favourably to similar EDM studies, the sensitivity of the research area to some of the participants and the tight-time pressures that auditors usually face on a daily basis might be reasons that significantly affect the response rate. It may be auditors are not anymore willing to donate their time for academic research.

	Egypt-base Audi	
	No	%
Total distributed	650	100
No response	(242)	(37.2)
Total received	408	62.8
Unusable/partially completed	(15)	(2.30)
Usable (subject to analysis)	393	60.46

**Table 3.5 Survey Response Rate** 

#### 3.7 Questionnaire Testing

A common limitation in survey-based management research in general is the inherent risk that the data collected is not sufficient enough to test the research hypotheses or the results or findings obtained cannot be generalised to the larger population. Here comes the need to test the research instrument, which appears a little more crucial in ethics research. These inherent risks include issues related to reliability and validity of the research instrument (questionnaire) as well as the sources of bias that could contaminate the research findings and make the process of drawing valuable findings appears questionable. Within this EDM research, special attention has been given to these issues and appropriate techniques and tests have been used to test for these threats. Reliability and validity of the questionnaire items were tested for.

#### 3.7.1 Reliability

Reliability represents one aspect that should be evaluated to maintain credibility of the research findings (Collis & Hussey, 2009). It is concerned with evaluating the repeatability of the study results (Bryman & Bell, 2011). Credibility of the research findings is crucial and reliability represents an aspect that should be evaluated before conclusions can be reached about the study. Reliability refers to "consistency of a measure of a concept" (Bryman & Bell, 2011, p. 158). A measurement is said to be reliable when we obtain the same result on repeated occasions (De Vaus, 2002); that is if the measure is administered to the same individual at two different occasions, similar results are likely to be generated (Bryman & Bell, 2011; Sekaran, 2003). In general, reliability is essentially concerned with the issues related to the consistency of measures employed in the questionnaire (Bryman & Bell, 2011; Sekaran, 2003).

There are three prominent factors to consider when assessing the reliability of a measure: test- re-test, internal consistency, and alternative or parallel form. Test-retest involves testing the same measure twice to the same subjects over an interval of less than six months (Cooper & Schindler, 2008). It is the only way to test the reliability when a single-item measure is employed (De Vaus, 2002) and a high correlation between the two shall be obtained for a measure to be reliable. Parallel form, however, based on a comparison of a study's measure with alternative measures that operationalise the same construct. It is generally recommended that the use of multiple-items measures, rather than single item measures, is more likely to enhance indicator reliability. The internal consistency represents the degree to which multiple items are homogenous and reflect the same underlying construct (Cooper & Schindler, 2008). Although there are variety of methods to measure the internal

consistency, however, the Cronbach's alpha is one of the most frequently used (Easterby-Smith et al., 2008; Saunders et al., 2009). In this study, Cronbach's alpha of multiple items measures was calculated to check for reliability of the measures.

Several multiple-items measures were adopted in this study, they are: personal moral philosophy dimensions (idealism and relativism), four ethical climate types (self-interest, organisation interest, law and code, and social responsibility), professional commitment dimensions (affective & normative), and three of the moral intensity dimensions (magnitude of consequences, social consensus, and temporal immediacy). A high (low) internal consistency value of a construct measure shows strong (weak) interrelatedness between the items used to measure the construct. From Table 3.6, the levels of all types of ethical climate range from 0.730 to 0.847. Several prior ethics studies have attained similar levels of reliability with respect to ethical climate types in the general business ethics area (e.g., Deconinck, 2004; Musbah et al., 2016; Peterson, 2002a, 2002b; Shafer, 2015), and in the audit context specifically (e.g., Shafer, 2008, 2009; Shafer et al., 2013a, 2013b; Venezia & Venezia, 2010).

Dimensions of personal moral philosophy (Idealism and Relativism) levels of internal consistency were 0.710 and 0.828 respectively. Consistent levels of reliability were reported by prior ethics studies (e.g., Vitell et al., 2003; Vitell & Patwardhan, 2008). Levels for professional commitment dimensions (affective and normative) were both slightly above 0.8, and this was similarly reported in prior studies of professional commitment (e.g., Shafer et al., 2013a, 2013b). Bryman and Bell (2011) maintained that it is usually expected that a result of 0.8 and above imply an acceptable level of internal reliability. Although this level has been typically employed as threshold for an acceptable level of internal reliability, the alpha value level of 0.7 or above is considered satisfactory (Bryman, 2004). Overall, it can be concluded that reliability of the measures employed in this study was considered acceptable. The analysis related to association of these constructs with EDM stages of external auditors will be presented in the next chapter.

Dimensions	Source	Questions	No. of Items	Alpha Result
Egoistic- Local	(Cullen et al., 1993)	Section B items: 5,8,11,13	4	.803
Egoistic-Individual	(Cullen et al., 1993)	Section B items: 4,6,14,15	4	.730
Benevolent-Cosmopolitan	(Cullen et al., 1993)	Section B items: 2,7,9,12	4	.821
Principled-Cosmopolitan	(Cullen et al., 1993)	Section B items: 1,3,10,16	4	.847
Moral Idealism	(Forsyth, 1980)	Section C1 items: 1-10	10	.710
Moral Relativism	(Forsyth, 1980)	Section C1 items: 11-20	10	.828
Affective professional commitment	(Meyer et al., 1993)	Section C2 items: 1-6	6	.804
Normative Professional commitment	(Meyer et al., 1993)	Section C2 items: 7-12	6	.815

Table 3.6 Cronbach's Coefficient Results of Multiple-items Measures

#### 3.7.2 Validity

Validity of the measures adopted in the questionnaire is regarded as a crucial criterion for assessing social research. It refers to "the issue of whether or not an indicator (or set of indicators) that is devised to gauge a concept really measures that concept". (Bryman & Bell, 2011, p. 159). A valid measure is the one which measures what is intended to measure (De Vaus, 2002). Several types of validity need to be established, including, face validity, Concurrent validity, Predictive (criterion-related validity), Construct validity, and Convergent validity (Bryman & Bell, 2011; Sekaran, 2003), In this study, several efforts have been devoted to ensure the validity of questionnaire items. Firstly, diverse theoretical perspectives of EDM have been employed to deduce hypotheses relevant to the constructs measured, thus helps in maintaining the construct validity. Several items have been employed in the questionnaire, such as ECQ and EPQ have been adopted and validated by prior ethics research. Secondly, an extensive literature review has been conducted regarding the constructs under investigation in relation to EDM stages, and extant literature suggest the predictive validity of the constructs and measures employed to explain the EDM process.

Thirdly, to avoid construct under-representation that is likely to occur when a measure fails to capture all important dimensions of a construct which threatens the construct validity, instead of adopting single-dimensional operationalisation, several multipleitems measures have been employed to operationalise and capture the multidimensionality of the constructs under investigation, such as, personal moral philosophy, professional commitment, ethical climate, and moral intensity. Finally, to ensure the face validity of the questionnaire items, a pilot study of the questionnaire items has been conducted resulting in valuable recommendation to enhance the face validity of the questionnaire (see section 3.6.4).

# 3.8 Sources of Bias

Since maintaining objectivity is crucial for a valid inquiry, methods and conclusions must then be examined for bias (Creswell, 2009). Paulhus (1991, p. 17) defined a response bias as a "systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content". Social research, in general, is subject to numerous sources of response bias that could threaten the validity of findings reported and conclusions reached. Especially in the current ethics study-employing questionnaire to collect research data, response bias can have an enormous impact on research findings. Bias in questionnaires is an important issue in social research. To collect the most accurate data from respondents, researchers should understand and be able to prevent or at least minimise bias in the design of their questionnaires.

#### **3.8.1** Social Desirability Response Bias (SDRB)

Paulhus (1991) maintained that Social Desirability Response Bias (SDRB) refers to the participants' tendency to respond to questions in a manner that makes them look good with regard to socially desirable standards of behaviour. Because of the inherent sensitivity of ethics research, asking respondents to self-report their ethical attitudes will potentially induce them to provide socially desirable responses. Thus, it is argued that SDRB is likely to be viewed as more critical to EDM research relative to the study of other disciplines (Fernandes & Randall, 1992; Randall & Fernandes, 1991; Schoderbek & Deshpande, 1996).

Relative to organisational behaviour research in general, SDRB, specifically in ethics research, may present an incrementally greater risk to the validity of findings (Randall & Fernandes, 1991). Randall, Huo, and Pawelk (1993, p. 185) stated that it may "mask the relationship between key variables, provide a false correlation between

them, moderate their relationship, or influence the response rate to the survey instrument". Empirically, considerable significant findings have been reported by prior ethics and management research regarding the negative impact of SDRB on validity and reliability of research findings (e.g., Bernardi & Adamaitis, 2006; Bernardi & Guptill, 2008; Chung & Monroe, 2003; Dalton & Ortegren, 2011; Fernandes & Randall, 1992; Fisher & Katz, 2000; King & Bruner, 2000; Randall & Gibson, 1990; Schoderbek & Deshpande, 1996).

Literature provides several methods to cope with SDRB, they could be categorised in: methods that deal with preventing and/or minimising the ability of SDRB to contaminate the reported research data, and techniques related to detection and measurement of SDRB (Nederhof, 1985). In this study, both minimising, as well as detection techniques were adopted.

Regarding approaches to alleviate SDRB, several steps were taken to encourage honest responses. Firstly, in order to minimise the likelihood of sensitising the respondents to the ethical nature of the survey, the cover letter accompanying the questionnaire indicates that the research is conducted to examine the influence of some factors on external auditors' decision making process generally; masking the ethical nature of the research could minimise SDRB. Additionally, with respect to the questionnaire items and scenarios, except for the ethical recognition item, no indication made to the sensitive nature (EDM) of the research. Secondly, the four scenarios presented to participants were worded in the third person, rather than asking them to take the part of the auditor committing the unethical act presented in the scenarios. This is a widely used method to control for SDRB (e.g., Bernardi, 2006; Curtis, 2006; Kennedy & Lawton, 1996; McMahon & Harvey, 2006, 2007; Ng et al., 2009; Simga-Mugan et al., 2005; Wason et al., 2002). Furthermore, the questionnaire was accompanied by a cover letter from the researcher that assured participants that their responses would be treated as strictly confidential and anonymity is to be maintained to all participants; respondents were ensured that identity of their practicing audit firms would not be disclosed (Nederhof, 1985; Ng et al., 2009; Sweeney & Costello, 2009), and the research results would only be analysed and

reported in the aggregate. In addition, participants were not asked to provide any personal identifying information in the instrument, providing them some assurance that the researcher would not know their identity. Furthermore, to assure them that no one in their firms will see any of the completed questionnaire, they were asked to seal their completed questionnaire in a provided envelope before handing to the contact person in their firm. Moreover, a self-completion questionnaire has been used to collect research data (Nederhof, 1985; Ng et al., 2009).

Methods to minimise SDRB, however, are not without critique. Although, it reduces SDRB somewhat, it does not fully disentangle the problem. Nederhof (1985) concluded that all methods of reducing or preventing SDRB are only partially effective, and it is necessary to incorporate supplemental methods to detect and assess the impact of such bias on reported findings. Similarly, Geiger and O'Connel (2000) found that asking questions in the third person is partially enough to control for SDRB and concluded that it is desirable to include a direct measure of SDRB to fully assess the impact of this bias on the research findings. Thus, in addition to the prevention techniques adopted, a direct measure of SDRB has been used and included in the questionnaire.

A number of SDRB scales have been developed, among these, two measures have been consistently used to operationalise SDRB, either the Marlow–Crowne scale (MCS) (Crowne & Marlowe, 1960) or the Balanced Inventory of Desirable Responding (BIDR) scale (Paulhus, 1984, 1991; Zerbe & Paulhus, 1987). Reviewing the literature provides support for the use of BIDR rather than using MCS to measure SDRB. On several grounds, the validity and reliability of MCS have been questioned. Paulhus (1984) argued about the MCS failure to distinguish between the SDRB's two-dimensions (i.e., self-deception and impression management), also, Crandall (1966) argued that MCS is an invalid measure of SDRB, it only captures respondents' tendency to deny socially undesirable behaviours rather than tendency to provide socially desirable answers (Crandall, 1966). Furthermore, several researchers have recommended the use of BIDR rather than MCS to operationalise SDRB (Moorman & Podsakoff, 1992; Randall & Fernandes, 1991).

Consequently, in this study, the BIDR was adopted to measure the SDRB. Paulhus (1991) BIDR-version Six is a questionnaire comprising two subscales with twenty items each. Each subscale is designed to measure the two major SDRB dimensions, Self-Deception and Impression Management (Paulhus, 2002). The Impression Management Subscale (IM) of BIDR (See Appendix A: The English Questionnaire) was used to measure SDRB for several reasons. Firstly, several researchers have argued that the use of IM is preferable when measuring the SDRB (Dalton & Ortegren, 2011; Moorman & Podsakoff, 1992; Randall & Fernandes, 1991). Furthermore, IM has been reported as highly correlated to the full BIDR (Randall & Fernandes, 1991). Secondly, IM was intensively used to control for potential SDRB in prior audit ethics research (e.g., Shafer, 2008, 2009; Shafer et al., 2013b; Shafer & Simmons, 2011a) and found to possess acceptable levels of reliability and validity. Finally, regarding the nature of the developing context in which this study was conducted, the cross-cultural validity of the items is something that needs to be considered. BIDR has been widely used and validated by numerous studies for measuring SDRB in a cross-cultural context (Bernardi, 2006; Bernardi et al., 2003; Bernardi & Guptill, 2008; Bernardi, Witek, & Melton, 2009).

The first question in Section E in the questionnaire was designed to measure respondents' tendency to provide socially desirable answers using the IMS of the BIDR. Consistent with the original version, regarding the 20 statements of the IMS, respondents were asked to indicate how much they agree with each statement on a seven-points scale anchored on {(1) "not true", "neither true nor false", and "very true"}. It should be noted that ten of the twenty items are reverse scored, after scoring adjustments; responses of six or seven to this scale portray an extremely honest person, and are anticipated to measure the tendency to overstate the truth or "manage" impressions. A single score for each participant is calculated as the total number of such responses (Paulhus, 1991). This is consistent with prior accounting ethics research that has adopted the IMS to test for SDRB (e.g., Shafer, 2009; Shafer & Simmons, 2011a). Additionally, it should be noted that the statement "I never take credit for other people's achievements". This modification grounded on pretesting results

that anticipate that the former might appear offensive to some respondents in the Egyptian context (especially female participants) which might harm the whole survey's response rate. It has been considered as a taboo issue to ask sexually oriented questions in the Middle-Eastern context in general and the Egyptian context specifically (Amin & Darrag, 2011). Face validity has been assured for the modified item through the piloting process. To test for the effect of SDRB, the associations of IMS with dependent variables (the three EDM stages in the four scenarios) were examined. Conducting correlational analyses, such as correlation and regression, between IM and examined variables has been previously adopted by several prior accounting ethics researchers (Shafer, 2009; Shafer & Simmons, 2011a). Results of regression analysis of IM on dependent variables will be provided later in the next chapter.

#### 3.8.2 Non-Response Bias

Social surveys employing questionnaire are prone to what is termed as non-response bias. Non-response bias could occur when a significant portion of the sample with certain characteristics refuses to respond to the questionnaire. It is more likely to influence survey results if there was a systematic difference in characteristics between responders and non-responders (Sedgwick, 2014). When respondents differ significantly from non-respondents, results obtained could not be generalised to the larger population, as it may be inaccurate and unreliable (Clottey & Grawe, 2014). The commonly recommended protection against non-response bias is the reduction of non-response itself (Armstrong & Overton, 1977), which is subject to many factors that are beyond the researcher's control.

Non-response bias is commonly cited as difficult to be quantified because information regarding the characteristics, attitudes, and behaviour of those who do not respond to the questionnaire is usually unavailable (Sedgwick, 2014). However, several assessment techniques of non-response-bias exist (MacDonald, Newburn-Cook, Schopflocher, & Richter, 2009). The most common methods include, firstly, comparison of the demographics of respondents to those of the larger population, secondly, comparison of responses from respondents versus responses from a random sample of non-respondents, thirdly, comparison of respondents versus non-

respondents on multiple characteristics such as demographics, and finally, comparison of responses from early and late respondents assuming that late respondents are most similar to non-respondents. The choice of an approach to adopt largely depends on the availability of data, as well as time and financial resources available to the researcher (MacDonald et al., 2009). Because of the limited data available to the researcher, the first three methods cannot be adopted; the identities of non-respondents cannot be obtained because of the anonymity provided to participants as well as data regarding the characteristics of the larger population was not available to the researcher.

In this study, the response rate was considered above acceptable level (approximately 60.5%), given the length of the questionnaire and the sensitive nature of the questions presented to participants. However, firm conclusion cannot be attained about whether the respondents are representative of the population of interest (Egyptian external auditors). It is thus crucial to test for the potential of non-response bias and to detect and consider possible problems with non-response errors. The results of this study were tested for non-response bias using the approach advocated by Armstrong and Overton (1977), which takes late responses as a surrogate for non-response. This extrapolation procedure assumes that survey participants who do not respond readily (i.e., late respondents) are more similar to non-respondents than those participants who respond readily (i.e., early respondents).

The sample was split based on the response time. Only eighteen questionnaires were received late after contacts were made to the audit partner/ managers (contact persons) in the audit firms regarding those who had not replied to the questionnaire within response time frame given to respondents. As indicated earlier, a lapse of at least eight weeks from the date of delivering out the questionnaires to audit firms before pickup has been arranged. Those who responded within this period were considered early respondents, while those who responded later were considered as late respondents.

Regarding the number of survey items to use in comparison, while diverse approaches exist, Mentzer and Flint (1997) suggest the comparison of at least five non-demographic survey questions to sufficiently test for non-response bias. Using T-test

to assess the non-response bias, responses concerning three dependent variables (ethical recognition, ethical judgment, and ethical intention) in the four scenarios and three independent variables (ethical climate types, personal moral philosophy, and professional commitment) were examined for differences between early and late responses. At a 0.05 level of significance, there were no statistical differences found between the mean scores of the normal (early) respondents and late respondents, thus it could be concluded that the effect of non-response bias, if exists, was non-significant.

•

	Early	Late		
Dependent and Independent variables	responses	responses	df	t
* *	M (S.D)	<b>M</b> ( <b>S</b> . <b>D</b> )	U	
Ethical Climate				
Egoistic-Individual	3.11(1.3)	3.4 (1.3)	383	-0.92
Egoistic Local	4.26 (1.24)	4.01 (0.85)	384	-0.83
Benevolent-Cosmopolitan	5.2 (1.03)	5.29 (0.92)	387	-0.32
Principle-Cosmopolitan	6.07 (0.85)	6.04(0.73)	387	0.13
Personal Moral Philosophy				
Idealism	5.95 (0.66)	5.95 (0.48)	376	0.01
Relativism	3.18 (1.16)	3.2 (0.84)	365	-0.8
Professional Commitment				
Affective Professional Commitment	5.72 (1.03)	5.5 (1.17)	371	0.84
Normative professional Commitment	4.69 (1.27)	4.56 (1.03)	379	0.40
Ethical Recognition				
Scenario A	4.94 (1.95)	5.17 (1.42)	389	-0.48
Scenario B	6.02 (1.41)	5.83 (1.38)	390	0.54
Scenario C	5.55 (1.64)	5.56 (1.33)	389	-0.008
Scenario D	5.18 (1.98)	5.22 (1.8)	389	-0.09
Ethical Judgment				
Scenario A	5.68 (1.43)	5.83 (1.04)	389	-0.43
Scenario B	6.10 (1.38)	6.22 (0.64)	390	-0.73
Scenario C	5.48 (1.56)	5.67 (1.23)	389	-0.50
Scenario D	5.17 (1.93)	5.33 (1.49)	389	-0.35
Ethical Intention				
Scenario A	5.6 (1.44)	5.89 (1.45)	387	-0.82
Scenario B	6.14 (1.31)	6.06 (0.99)	389	0.25
Scenario C	5.44 (1.59)	5.53 (1.17)	385	-0.22
Scenario D	5.52 (1.6)	5.11 (1.02)	388	1.61

**Table 3.7 t-test Results of Early and Late Responses** 

Levene's test for equality of variances was adopted to test for equality of variances assumption. When significant results were obtained, the adjusted t-values and df were reported. A two-tailed t-test was used throughout the thesis.

\*\* P<0.05

# 3.8.3 Response Style Bias: Extreme Responses and Acquiescence/Disacquiescence Responses

Attitude research in general and survey research in particular, specially ones using questionnaires for instrumentation, are subject to what is referred to as response style bias. Response style bias refers to evidence that some participants' answers to questions is influenced by factors other than the constructs the researcher intends to measure (Kieruj & Moors, 2013). Response style bias has been documented in survey research as being a threat that has a nontrivial influence on attitudes measurement that can lead to questionable conclusions. Response style bias could manifest in various ways such as the acquiescence response styles that exhibited by respondents who tend

to disproportionately use the positive side of the scale, whereas respondents who tends to disproportionately use the negative side of the scale are those exhibited a disacquiescence response style bias (Podsakoff, MacKenzie, & Podsakoff, 2012). It is crucial to keep these forms of biases to the minimum; it threatens the reliability and validity of the study's results.

Extant literature has provided very little advice on how to make survey design suffer less from response style bias. However, several developments in this area appear promising. Based on common methods suggested by diverse scholars, in this study, several efforts have been devoted to eliminate, or at least alleviate the potential for response style bias. Firstly, the number of response options given to the respondents was 7 rather than 5, which could provide a slight reduction in response bias (Harzing, 2006; Harzing et al., 2009). Secondly, a mixture of positive and negative statements has been used (e.g., Moral Intensity and Professional Commitment items), and they have been mixed up to help avoid an acquiescent response set (De Vaus, 2002). These could lead respondents to consider the exact meaning of the statement more closely, which could result in more eloquent responses that could minimise the impact of response style bias (Harzing, 2006; Smith, 2003). Finally, instead of presenting the questionnaire in the English language, it was considered more appropriate to present the questionnaire in the native language of the respondents (Arabic Language) to minimise any potential language bias (Harzing, Brown, Koster, & Zhao, 2012).

# 3.9 Data Analysis

After checking and reviewing the collected questionnaires, data were then entered into SPSS (version 22) for analysis. Gathered data were analysed using several statistical analysis techniques including descriptive statistics, as well as parametric statistical tests. Survey respondents' profiles in terms of gender, age and other demographics were presented in frequencies. Descriptive statistics were also used to identify missing data and to check for the data normality.

As per the current study's aims, two types of independent variables were examined in relation to three stages of EDM process (dependent variables): categorical variables (e.g., gender, age, firm size) and continuous variables (e.g., professional commitment,

ethical climate). Categorical variables were analysed using one-way ANOVA and Ttests. These tests allow identifying the differences in means of dependent variables among different categories of respondents as based on some of the study demographics including gender, educational level, work experience, and organisational size. Hypotheses related to the influence of continuous independent variables (e.g., professional commitment and ethical climate) are to be analysed using Hierarchical Linear Multiple Regression; it allows the researcher to reveal the contribution of each of the independent variables in the variance of the dependent variables.

Moreover, some additional tests were used to examine several issues. Pearson's correlations were used to examine issues related to correlation of independent with dependent variables as well as multicollinearity among independent variables. The dimensionality of moral intensity dimensions was examined using Principal-Components Factor Analysis. Since multiple-items measures were used for some of the study's variables (e.g., personal moral philosophy), their reliability has been tested using Cronbach's alpha test.

### **3.10 Research Ethical Considerations**

In general, ethical considerations are one of the vital issues that should be addressed while designing and administering a research instrument to human participants as well as when analysing and reporting the research results. Research ethical considerations addresses "questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store our data, analyse data and write up our research findings in a moral and responsible way" (Saunders et al., 2009, p. 184). At all times, human research participants shall not be harmed from their participation in social research; for example, the anonymity of their identities and the confidentiality of their provided responses to a questionnaire or interviews shall be always strictly protected. Research participants have the right to know who is conducting and for what purpose is conducted the research they are about to participate in.

For the current survey, an ethics approval letter has been obtained from the school's research ethics committee, as well as several ethical responsibilities towards respondents have been maintained, including voluntary participation, confidentiality and anonymity of respondents and they have been ensured that research will, by any mean cause no harm to them.

The use of coercion to force participants to take part in the research is a significant breach of social research ethical principles (Collis & Hussey, 2009). Thus, to ensure voluntary participation, a covering letter accompanied the questionnaire indicates that research participation is entirely voluntary, and strict instructions as well, have been given to the contact person in each participating audit firm to emphasise that research participation is entirely voluntary. Furthermore, no financial or any other material reward has been offered to targeted participants prior to participation. Additionally, to ensure that all participants have been given all the relevant information about the research they are about to participate in, the cover letter states the purpose of the research, the researcher identity, and the supervisor, as well as the university at which research is conducted (University of Huddersfield).

Participants have also been informed that their participation was required because they are working as an external auditor in Egypt and their participation is highly valued. Complying with the confidentiality rule, the cover letter also assured participants that their responses would be treated with strictest confidence, their responses will be kept anonymous, and data generated will be analysed and reported in the aggregate. Neither any of the respondent's identity or the identity of his/her respective firms would not be disclosed by any mean or to anyone other than the researcher and the supervisory team.

Furthermore, to ensure respondents' anonymity, external auditors targeted for participation were not asked to provide any personal identifying information in the questionnaire, thus to make it impossible for the researcher to identify any of them personally. Moreover, to further maintain confidentiality of their responses, a provided envelope accompanied the questionnaire, which participants have been asked to seal their completed questionnaire in before handing to their firm's contact person. This has been done to give them more assurance that nobody at their firm can gain access to their provided responses.

Moreover, participants have been given the opportunity to ask for the research results; at the end of the questionnaire, participants were asked to provide their emails if they would like to have a copy of the research results. Contact details of the researcher and the supervisor were provided to respondents in case they need to ask about more details concerning the research. In conclusion, findings of the current study have been presented in the next chapter and the contribution made by each participant has been completely anonymised.

# 3.11 Summary

Having designed a research model for empirical testing, significant attention has been given to the examination part of this study and specifically for the sensitive nature of this investigation. This chapter aimed at describing and discussing the methodology employed within the current research. Accordingly, it started with the paradigm debate and the philosophical assumptions adapted in this study. Given that positivistic and quantitative approaches have been widely adopted in EDM research, a functionalist paradigm, positivistic approach, and a cross-sectional design were adopted to achieve the research aims. The targeted populations and samples, including external auditors working for 19 audit firms (Big-X and the remaining are Mid-tier and smaller firms) in Egypt, were defined. Those audit firms audit the majority of Egyptian Stock Exchange listed clients. The research instrument used in this study is a questionnaire employing four external audit context-based ethical scenarios adapted and validated from earlier audit ethics research. Survey based research data from a large sample of external auditors targeted for this study, as it will save time and effort.

The process by which the questionnaire was designed, tested, translated, piloted, and administered to respondents was discussed. Sources of bias commonly threaten the validity of the current type of research were discussed along with the techniques adopted to handle them. In the last two sections, the statistical techniques adopted to analyse the research data were presented including the one-way Analysis of Variance (ANOVA), Independent Sample t-test, and Hierarchical Linear Multiple Regression as well as the ethical issues arises with such a social ethics research. It is noteworthy that several efforts have been made to design this ethics research; ethics research in general and EDM research in particular, experiences difficulties that are both theoretical and practical. Designing an ethics questionnaire that encourage respondents to provide unbiased answers was not an easy task.

Moreover, to deal with the respondents' (external auditors) time constraints pertains to tight-time pressures they face on a daily basis, several considerations have been taken into account related to the questionnaire design by not making it too long and easily understandable. Translation issues of the questionnaire were also considered with emphasis on the equivalence of meaning rather than literal translation. The next chapter provides the research results and findings.

# Chapter Four Results and Findings

# 4.1 Introduction

The aim of the current study is to identify the personal, organisational and moral intensity dimensions that influence external auditors' EDM process in a developing audit context, namely Egypt. Specifically, to determine the relationship between certain personal variables (gender, age, educational level, auditor's position level, certification status, work experience, personal moral philosophy, and professional commitment) and Egyptian external auditors' EDM stages. Secondly, to determine the relationship between certain organisational variables (firm size, code of ethics, ethical climate) and Egyptian external auditors' EDM stages. Finally, determine the relationship between moral intensity dimensions (magnitude of consequences, social consensus, temporal immediacy, concentration of effect, probability of effect, proximity) and Egyptian external auditors' EDM stages. Findings related to these objectives are presented in this chapter, it is designed to provide the results of the statistical analyses of the research data, and it entails the results of hypotheses testing.

This chapter is organised into five sections: following this introduction, the second section displays basic demographics of the survey respondents, research hypotheses testing using one-way between-groups analysis of variance (ANOVA) of categorical independent variables and independent samples t-test of dichotomous independent variables are presented in the third section. Hierarchical linear multiple regression results of some personal, organisational and issue-specific continuous independent variables that might affect external auditors' EDM stages are also presented in this section. Section four presents the major findings of the statistical analyses and the chapter is then summarised in the last section.

# 4.2 **Basic Demographic Characteristics of Respondents**

As mentioned earlier, external auditors work for 19 audit firms in Egypt were targeted for participation. Altogether, 393 valid questionnaires were collected. The sample included a broad group in terms of firm size, age, work experience, job level. The first section of the questionnaire was designed to gather demographic data about the study's participants {external auditors}, while information regarding their age, gender, professional certification, professional audit experience, position, and educational levels were gathered in categories, audit firm where the external auditor is employed was recorded by the researcher and they were categorised as either a Big-X Firms and non-Big-X firms.

In this section, the demographic characteristics of the respondents are presented. Regarding the study respondents' characteristics, as indicated in Table 4.1 below, the majority {73%} of the study participants are aged less than 35 years with more than half of the respondents aged from 25 to less than 35 years {52.4%}. Male auditors accounted for the majority of the sample; nearly 74% of respondents were male. This is consistent with the arguments regarding the male dominance in the external auditing profession (Dalton et al., 2014), particularly in the Arab world (Ibrahim El-Sayed, 2011; Qasem & Abdullatif, 2014; Rahahlel, 2010) where females are less successful in gaining advancement in the auditing profession both internal and external. With the very limited participation of those who are aged more than 55 years  $\{0.8\%\}$ , it is notably that they are all male respondents. Representativeness of females as per each age group is significantly different, while it is almost 46% at the age less than 25 years; it is only 26% at the age from 25 to 35 years, and only 13% at the age from 35 to 45 years. These results may point to reluctance of female auditors to continue in the auditing profession, as they grew older. Furthermore, while almost 88% of females who participated in this study, aged less than 35 years, only 67% of males are at the same age group, although these differences might appear insignificant, it could be argued that female auditors in our sample are slightly younger than their male counterparts.

With regard to the professional audit experience, approximately 33% of external auditors have audit work experience between 5 and 10 years. Although nearly 82% of female participants have work experience less than 10 years, only 54.5% of male participants have work experience in the same group. These results may indicate that, within the current study's sample, male auditors are, on average, more experienced

than their female counterparts. The sample was also comprised of approximately 13% audit trainees, almost 24% Associate/staff level/Junior auditors, a majority of approximately 33% of senior auditors/assistant managers, 22% managers/senior managers, and a minority of nearly 7.5% at the director/partner position level. As indicated in the cross-tabulation by position and gender, males accounted for the majority across all position levels; however, the disparity was more pronounced at manager/senior manager, and Director/ partner positions. These patterns appear reasonable given the family commitments of female auditors in contrast to male auditors, especially in an eastern culture such as Egypt, which makes leaving the auditing profession before reaching the manager or partner levels seems more likely for female auditors than their male counterparts.

Concerning the size of the firm at which the participants are employed, almost twothirds of the respondents {66.5%} are employed by the big-four firms, with regard to professional certification, almost 58% of the respondents hold professional certifications. Consistently with the male/female ratio in the auditing profession, a significant portion of certified auditors are males {83%}. A majority, almost 69% of certified auditors in the sample are working for the Big-four firms. As would be expected, while 100 % of Directors/partners were certified, all audit trainees are not certified. Between these two extremes, a significant portion {71%} of audit seniors/assistant mangers and a great majority {96%} of audit managers/senior managers were certified, while the majority {75.8%} of junior/staff level/ associate auditors have not yet attained certification.

Finally, with respect to the educational level, all the respondents are university graduates with at least a Bachelor degree; this appears reasonable in the Egyptian context given that holding a university degree is a minimum requirement for being employed as an external auditor in any audit firm in Egypt. Table 4.1 below indicates that a great majority of external auditors {88%} reported a business/accountancy bachelor degree as their highest educational level attained and a minority have a postgraduate diploma {8.7%}. Only 2.6% of participants hold a master degree, interestingly, only one respondent holds a PhD degree. These results, when compared

to the certifications held may indicate that, for external auditors, holding a professional qualification is a preferable career-growth path than seeking higher educational degrees. Concerning the firm's code of ethics, except for a minority of approximately 8%, all external auditors who participated in the current study reported that their audit firms have code of ethics.

In conclusion, respondents for the current survey represent a varied set of external auditors working in Egypt, thus, results and findings based on analysis of the data obtained are considered valuable and beneficial.

Age & Gender	< 2	5 years	25	->35	35	5->45	45	->55		More	than 55		Г	`otal				
Age & Gender	FQ	%	FQ	%	FQ	%	FQ	%	FQ		%		FQ	%				
Male	39	11%	138	38.9%	60	16.9%	23	6.5%	3		0.8%		263	74.1%				
Female	33	9.3%	48	13.5%	8	2.3%	3	0.8%	0		0		0		0%		92	25.9%
Total	72	20.3%	186	52.4%	68	19.2%	26	7.3%	3		0.8%	0.8%		100%				
Audit Exp. & Gender	< 5	years	5-	<10	10	)-<15	15	-<20	20	20-<25 More than 25 years			Т	`otal				
Gender	FQ	%	FQ	%	FQ	%	FQ	%	FQ	%	FQ	%	FQ	%				
Male	61	17%	84	23.4%	55	15.3%	38	10.6%	19	5.3%	9	2.5%	266	74.1%				
Female	42	11.7%	34	9.5%	10	2.8%	4	1.1%	2	0.6%	1	0.3%	93	25.9%				
Total	103	28.7%	118	32.9%	65	18.1%	42	11.7%	21	5.8%	10	2.8%	359*	100%				
Position & certification	Audi	t Trainee	level/A	or/Staff Associate ditor	Auditor	enior r/Assistant mager	-	er/Senior nager		Directo	r/Partner		Г	`otal				
	FQ	%	FQ	%	FQ	%	FQ	%	FQ		%		FQ	%				
Certified	0	0%	21	5.7%	86	23.3%	83	22.5%	27		7.3%		217	58.8%				
Uncertified	48	13%	66	17.9%	35	9.5%	3	0.8%	0		0%		152	41.2%				
Total	48	13%	87	23.6%	121	32.8%	86	23.3 %	27		7.3%		369*	100%				
Position & Gender		t Trainee	level/A Au	or/Staff Associate ditor	Auditor Ma	enior r/Assistant mager	Ma	er/Senior nager		Directo	r/Partner		Total					
	FQ	%	FQ	%	FQ	%	FQ	%	FQ		%		FQ	%				
Male	27	7.5%	54	15.1%	92	25.7%	66	18.4%	26		7.3%		265	74%				
Female	22	6.1%	32	8.9%	25	7%	13	3.6%	1		0.3%		93	26%				
Total	49	13.7%	86	24%	117	32.7%	79	22.1%	27		7.5%		358*	100%				
Certification &Firm Size			Big-	Four Firms			Non-Big Fo				ig Four firms			Total				
	Freque	ency		Percentag	ge		Frequenc	y		Percenta	age		FQ	%				
Certified	150			40.2%			68			18.2%			218	58.4%				
Uncertified	98			26.3%			57			15.3%			155	41.6%				
Total	248			66.5%			125			33.5%			373*	100%				
Certification &			(	Certified					Uncert					`otal				
Gender	Freque	ency		Percentag	ge		Frequenc	y		Percenta	age		FQ	%				
Male	169			49%			89			25.8%			258	74.8%				
Female	35			10.1%			52			15.1%			87	25.2%				
Total	204			59.1%			145			40.9%			345*	100%				
Educational Level		iness/Accou achelor Deg		Post	Graduate D	Diploma		er Degree or equivalent	its		PhD	) or its equ	iivalent					
Frequency	345			34			10			1								
Percentage	87.8% 8.7%						2.6% 0.3%											
Code of ethics							Respondents Who respond NO											
Frequency	340							30										
Percentage	91.9%							8.1%										
*Numbers do no				- :				1										

# Table 4.1 Demographics of Survey Respondents

\*Numbers do not total sample size due to missing items

# 4.3 Hypotheses Testing

As per the aims of the current study, hypotheses were formulated to determine the role of eight personal (e.g., gender, educational level, personal moral philosophy, professional commitment), three organisational (ethical climate types, firm size), and issue-specific variables (e.g., magnitude of consequences, concentration of effect) in external auditors' EDM process (see chapter two, Table 2.2). This section is then devoted to present the statistical analysis related to the hypotheses of this study. The following two subsections present the results of one way between-groups analysis of variance (ANOVA), Independent samples T-test, and hierarchical multiple regression tests regarding this study's hypotheses testing.

# 4.3.1 One Way Between-groups Analysis of Variance (ANOVA) and Independent Samples T-Test of Categorical Variables

In this study, six personal (e.g., work experience, age, educational level) and two organisational (code of ethics and firm size) variables examined involve independent categories. Thus, it is appropriate to use parametric tests such as One-way between-groups analyses of variance (ANOVA) and independent samples t-tests to examine the association of these categorical variables in relation to external auditors' EDM stages. Several prior studies have used these tests to examine the association of several categorical variables with EDM stages (e.g., Musbah et al., 2016; Shafer & Wang, 2011; Sidani et al., 2009). While four variables (gender, certification status, firm size, and code of ethics) were examined by T-test, as they involve only two categories, the ANOVA test was employed to examine the remaining four (age, educational level, position level, and work experience) as they involve more than two categories. The statistical analyses conducted in this section are to partially fulfill the first and the second objectives of this study. In order to identify differences among external auditors as based on their age, educational level, position level, and work experience, Scheffe's test was also used for post-hoc multiple comparisons.

Before conducting these tests, several issues shall be addressed to obtain meaningful results. Because sample rather than the whole population is studied, certain statistical assumptions must be met which are the foundations of the ANOVA and t-test to

enable generalisations. The most important assumptions are normality, homogeneity of variance, and independence of observations (Hair et al., 2006). Regarding the independence assumption, in this study, there is no reason to assume that participants and their responses regarding the variables of interest were not independent. Several graphical and statistical checks have been employed to test for normality, and homogeneity of variances. Normal probability plots (P-P) and histograms were used to check for the normality assumption and Levene's test for equality of variance was used to test for homogeneity of variances (Tabachnick & Fidell, 2007). These assumptions are essential for statistical tests to be valid. In this study, although in almost 15% of cases Levene's test showed significant results, several authors (Field, 2009; Hair et al., 2006) suggest that ANOVA and t-test are generally robust tests, and they still valid if violations of these assumptions are modest.

Also examining data for outliers and their effect on the Type I errors is strongly recommended before proceeding with these tests. Any outlying values found in the data when removed obtained no different results, thus, it was decided to not remove them. Means, standard deviations and results for one-way independent samples ANOVA (F statistic), and independent samples t-tests (t statistic) are shown in Table 4.2 and Table 4.3.

Variables &		Ethical Reco	ognition		E	Cthical Judgme	nt	Ethical Intention				
Scenarios	Α	В	С	D	Α	В	С	D	А	В	С	D
Age												
<25 years	5.0 (1.6)	5.6 (1.2)	5.5 (1.5)	5.2 (1.8)	5.6 (1.0)	5.9 (1.1)	5.4 (1.3)	4.9 (1.9)	5.5 (1.2)	5.4 (1.4)	5.4 (1.5)	5.3 (1.4)
25->35	4.8 (1.9)	5.9 (1.4)	5.4 (1.6)	5.0 (2.0)	5.6 (1.5)	6.1 (1.3)	5.3 (1.6)	5.2 (1.9)	5.4 (1.4)	6.1 (1.2)	5.2 (1.6)	5.5 (1.6)
35->45	5.2 (1.9)	6.4 (1.1)	5.7 (1.6)	5.6 (1.6)	5.7 (1.5)	6.2 (1.4)	5.6 (1.5)	5.4 (1.7)	5.7 (1.5)	6.5 (.98)	5.6 (1.4)	5.6 (1.5)
45->55	5.2 (2.1)	6.0 (1.8)	5.8 (1.6)	5.0 (2.1)	6.1 (1.2)	5.9 (1.8)	5.8 (1.5)	4.7 (2.0)	6.1 (1.2)	6.4 (1.1)	6.1 (1.2)	5.4 (1.5)
F	1.028	3.821*	1.005	1.745	1.425	.618	1.095	1.256	2.073	9.638***	2.984*	.685
df	3&378	3&379	3&378	3&378	3&378	3&379	3&378	3&378	3&376	3&378	3&374	3&377
Education												
Bachelor	4.9 (1.8)	6.0 (1.4)	5.5 (1.6)	5.1 (1.9)	5.6 (1.3)	6.1 (1.3)	5.4 (1.5)	5.2 (1.8)	5.5 (1.4)	6.1 (1.2)	5.4 (1.5)	5.4 (1.5)
Diploma	5.1 (2.2)	6.0 (1.4)	5.7 (1.4)	5.5 (2.0)	5.7 (1.7)	6.1 (1.4)	5.2 (1.6)	5.5 (1.7)	6.0 (1.2)	6.3 (1.1)	5.4 (1.6)	6.0 (1.5)
Master	3.4 (2.2)	5.8 (1.4)	5.8 (2.0)	5.4 (2.0)	5.4 (1.7)	5.9 (1.9)	6.1 (1.4)	4.1 (2.6)	5.4 (1.8)	6.0 (1.4)	5.9 (1.9)	5.4 (2.1)
F	3.461*	.164	.591	.525	.215	.112	1.125	2.124	1.906	.431	.445	2.369
df	2&384	2&385	2&384	2&384	2&284	2&385	2&384	2&384	2&382	2&384	2&380	2&383

### Table 4.2 Categorical Personal Variables and EDM Stages: Mean (SD) and Inferential Results

A Scenario A; B Scenario B; C Scenario C; D Scenario D, \* p< 0.05; \*\* p<0.01; \*\*\* p<0.001

Variables and		Ethical Re	cognition			Ethical Judgment				Ethical Intention			
Scenarios	А	В	С	D	Α	В	С	D	А	В	С	D	
Experience													
Less than 5	5.0 (1.7)	5.7 (1.4)	5.3 (1.6)	5.1 (1.9)	5.6 (1.2)	6.0 (1.1)	5.2 (1.6)	5.0 (1.8)	5.3 (1.4)	5.7 (1.3)	5.2 (1.5)	5.1 (1.5)	
5 - <10	4.6 (1.9)	5.8 (1.4)	5.4 (1.7)	5.1 (2.0)	5.4 (1.4)	5.9 (1.3)	5.5 (1.5)	4.9 (2.1)	5.3 (1.4)	5.9 (1.4)	5.3 (1.6)	5.5 (1.5)	
10 - <15	4.9 (2.1)	6.4 (1.0)	5.6 (1.6)	4.9 (2.1)	5.6 (1.8)	6.4 (1.1)	5.4 (1.4)	5.4 (1.7)	5.9 (1.3)	6.5 (.91)	5.5 (1.5)	5.7 (1.5)	
15 - <20	5.5 (1.7)	6.5 (.97)	5.9 (1.5)	6.0 (1.2)	6.2 (.85)	6.1 (1.6)	5.9 (1.3)	5.7 (1.4)	5.8 (1.4)	6.7 (.75)	5.7 (1.5)	5.7 (1.3)	
20 - <25	4.8 (2.4)	6.3 (1.6)	6.1 (1.0)	5.4 (1.8)	5.9 (1.6)	5.6 (2.2)	6.1 (.73)	5.1 (1.9)	6.2 (1.0)	6.5 (1.3)	6.2 (.76)	5.6 (1.3)	
>=25 years	5.0 (2.1)	5.6 (2.0)	5.3 (2.1)	3.8 (2.5)	6.4 (.68)	6.4 (.93)	5.3 (2.3)	4.2 (2.4)	6.0 (1.6)	6.8 (.40)	5.5 (1.9)	5.0 (2.3)	
F	1.706	4.559***	1.597	3.162**	2.800*	1.942	2.498*	1.842	3.932**	7.152***	2.045	1.932	
df	5&382	5&383	5&382	5&382	5&382	5&383	5&382	5&382	5&380	5&382	5&378	5&381	
Position													
Audit Trainee	4.8 (1.8)	5.6 (1.3)	5.6 (1.4)	5.1 (1.9)	5.7 (1.0)	6.1 (1.0)	5.4 (1.4)	4.5 (2.1)	5.7 (1.1)	5.7 (1.3)	5.4 (1.5)	5.2 (1.5)	
Staff Auditor	5.0 (1.6)	5.5 (1.6)	5.3 (1.6)	5.0 (2.0)	5.5 (1.3)	5.9 (1.4)	5.3 (1.5)	5.0 (1.9)	5.2 (1.4)	5.7 (1.5)	5.2 (1.5)	5.3 (1.5)	
Senior/Assistant Manager	4.6 (2.1)	6.1 (1.1)	5.5 (1.6)	5.0 (2.0)	5.5 (1.6)	6.2 (1.1)	5.5 (1.5)	5.1 (1.9)	5.5 (1.4)	6.2 (1.2)	5.3 (1.7)	5.6 (1.5)	
Manager/Senior Manager	5.0 (1.9)	6.2 (1.2)	5.7 (1.4)	5.5 (1.6)	5.7 (1.3)	6.0 (1.6)	5.6 (1.4)	5.6 (1.4)	5.9 (1.3)	6.5 (1.0)	5.7 (1.4)	5.6 (1.5)	
Director/Partner	5.7 (1.7)	6.3 (1.5)	5.8 (1.9)	5.4 (2.0)	6.5 (.69)	6.1 (1.7)	5.8 (1.7)	5.4 (1.9)	5.8 (1.6)	6.7 (.5)	5.8 (1.6)	5.6 (1.7)	
F	1.123	4.812**	1.311	1.407	3.232*	.883	.989	3.241*	3.268*	7.770***	1.466	1.030	
df	4&382	4&383	4&382	4&382	4&382	4&383	2&382	4&382	4&380	4&382	4&379	4&381	

A Scenario A; B Scenario B; C Scenario C; D Scenario D; \* p<0.05; \*\* P <0.01; \*\*\*p<0.001

Variables and		Ethical Judgment				Ethical Intention						
Scenarios	Α	В	С	D	А	В	С	D	А	В	С	D
Gender					· · · · ·				·			
Males	4.9 (2.0)	6.2(1.2)	5.7 (1.5)	5.2 (2.0)	5.7 (1.4)	6.2 (1.3)	5.6 (1.4)	5.2 (1.9)	5.7 (1.4)	6.3 (1.1)	5.6 (1.5)	5.6 (1.5)
Females	4.8 (1.7)	5.5(1.5)	5.0 (1.6)	5.0 (1.9)	5.5 (1.2)	5.7 (1.3)	5.0 (1.6)	4.9 (1.9)	5.4 (1.1	5.6 (1.4)	4.8 (1.7)	5.1 (1.7)
t	.295	3.566***	3.559***	.646	1.119	3.468**	2.944**	1.523	1.385	4.569***	3.551**	2.124*
df	357	358	357	357	357	358	357	357	335	357	353	356
Certification Status												
Certified	4.9 (2.0)	6.2 (1.3)	5.7 (1.5)	5.2 (1.9)	5.7 (1.4)	6.2 (1.3)	5.6 (1.5)	5.2 (1.9)	5.8(1.4)	6.3(1.2)	5.5(1.6)	5.6(1.5)
Uncertified	4.9 (1.7)	5.7 (1.5)	5.2 (1.7)	5.0 (2.0)	5.5 (1.4)	5.9 (1.3)	5.2 (1.6)	5.1 (1.8)	5.3(1.4)	5.8(1.3)	5.3(1.5)	5.3(1.5)
t	.150	3.601***	2.661**	.770	1.307	1.703	2.076*	.523	3.273**	3.804***	1.150	1.908
df	369	370	370	369	369	370	370	369	368	369	366	368

A Scenario A; B Scenario B; C Scenario C; D Scenario D; \* p<0.05; \*\* P <0.01; \*\*\*p<0.001

Variables and	Ethical Recognition				Ethical Judgment				Ethical Intention			
Scenarios	А	В	С	D	Α	В	С	D	А	В	С	D
Firm Size												
Big X Firms Non-BIG X	5.3 (1.6) 4.2 (2.2)	6.0 (1.3) 5.9 (1.5)	5.5 (1.5) 5.5 (1.7)	5.3 (1.8) 4.8 (2.1)	5.8 (1.2) 5.4 (1.6)	6.0 (1.3) 6.2 (1.3)	5.5 (1.5) 5.4 (1.6)	5.4 (1.7) 4.5 (2.1)	5.5 (1.5) 5.7 (1.3)	6.1 (1.3) 6.1 (1.2)	5.4 (1.5) 5.5 (1.6)	5.5 (1.4) 5.3 (1.7)
t	4.744***	1.008	.099	2.588*	2.170*	997	.590	4.171***	-1.212	566	841	1.340
df	389	390	389	389	389	390	389	389	387	389	385	388
Code of Ethics												
Has code	4.9 (1.9)	6.0 (1.4)	5.5 (1.6)	5.1 (1.9)	5.7 (1.3)	6.0 (1.3)	5.5 (1.5)	5.1 (1.9)	5.6 (1.3)	6.1 (1.3)	5.5 (1.5)	5.5 (1.5)
No Code	4.3 (2.1)	5.7 (1.5)	5.0 (2.1)	4.5 (2.4)	5.0 (1.7)	6.1 (1.2)	4.9 (1.8)	5.1 (2.1)	4.6 (1.7)	5.8 (1.4)	4.7 (2.1)	5.2 (1.9)
t	1.760	1.169	1.403	1.533	2.596*	-2.85	1.824*	.178	3.132***	1.130	1.926	.678
df	367	367	366	366	366	367	366	366	364	366	362	365

#### Table 4.3 Categorical Organisational Variables and EDM Stages: Mean (S.D.) and Inferential Results

A Scenario A; B Scenario B; C Scenario C; D Scenario D; \* p<0.05; \*\* p<0.01; \*\*\* p<0.01

#### **4.3.1.1 Gender Differences in EDM Stages**

In this study, the question of gender role in each stage of EDM process has been tested in three hypotheses. Inconsistent findings have been reported by prior literature regarding the gender effects on EDM stages (see chapter two: section 2.4.1.2), with the majority of the studies suggesting that when differences are found, females exhibit more ethical choices than males. Hypotheses H1a, H1b, and H1c were related to how gender impacts each stage of the EDM process. An independent samples t-test was conducted in order to examine whether there were significant differences in the mean scores of EDM stages as based on gender of the respondent. Table 4.2 provides the descriptive statistics and the independent samples t-test inferential results for external auditors' responses to the four scenarios.

Regarding the ethical recognition stage, *H1a: Mean Ethical Recognition Scores Will Be Significantly Different between Males and Females,* Table 4.2 indicates that, on average all external auditors, males and females, who participated in the survey recognised the ethical dilemmas presented in the four scenarios, their ethical recognition scores are above a median of 4. However, t-test revealed that differences in ethical recognition mean scores as based on gender exists. While differences were non-significant in scenario A and D, they were significant in the other two scenarios {(scenario B, t (358) =3.566, p<0.001) and (scenario C, t (357) =3.559, p<0.001)}. Table 4.2 shows that ethical recognition mean scores of males were significantly higher than those of female auditors. Thus, there was a partial support for *H1a*.

With respect to *H1b: Mean Ethical Judgment Scores Will Be Significantly Different between Males and Females,* Table 4.2 illustrates that on average female and male auditors judged ethical actions presented at each scenario as unethical, as their mean ethical judgment scores were 4.9 or above. It also exhibits that the mean scores of ethical judgment of females were less than males in all scenarios, however, these differences were significant in only two scenarios, scenario B (t (358) = 3.468, p<0.01), and scenario C (t (357) = 2.944, p<0.01). Therefore, *H1b* was partially supported.

Concerning the ethical intention stage, *H1a: Mean Ethical Intention Scores Will Be Significantly Different between Males and Females,* Table 4.2 showed that all female and male auditors participated in the survey have exhibited intention to behave ethically in all scenarios, their mean ethical intention scores were 4.9 or above. In all scenarios mean ethical intention scores of male auditors are higher than their female counterparts. Differences between males and females were significant in three of the four scenarios, scenario B (t (357) = 4.569, p<0.001), scenario C (t (353) = 3.551, p<0.01), and scenario D (t (356) = 2.124, p<0.05). These findings provided support for *H1a*.

In conclusion, t-test revealed that there was a partial support for the differences in the mean scores of auditors' EDM stages as related to gender. These findings were further discussed in the next chapter.

#### 4.3.1.2 Age Differences and EDM Stages

Theoretical and empirical business ethics literature presented in chapter two earlier (see chapter two: section 2.4.1.1) suggests that age is positively associated with EDM stages. Hypotheses H2a, H2b, and H2c were formulated to examine the association of age to EDM stages. An ANOVA test was conducted in order to examine the differences in EDM scores between respondents as based on their age. Table 4.2 above presents the descriptive statistics and the ANOVA test results for external auditors' responses to each of the four scenarios.

An issue that should be considered when conducting the ANOVA test is Type I errors. In this study, Type I errors are more likely to occur, as multiple ANOVA and t-test were conducted to examine the association of diverse categorical variables with three EDM stages along four different scenarios (Hair et al., 2006). Type I errors are also more likely to occur when extremely unequal sample size of the groups (Hair et al., 2006; Tabachnick & Fidell, 2007). Three respondents were at the age of over 55 years and they have been excluded from the analysis to minimise the effects of Type I errors if exists.

Regarding the ethical recognition stage, *H2a: Mean Ethical Recognition Scores Will Significantly Increase as Age Increases, descriptive results* depicted in Table 4.2 shows that, on average, all external auditors at all age groups had recognised the ethical issues presented in the four scenarios. Their mean ethical recognition scores ranged from 4.8 to 6.4. Differences in external auditors' ethical recognition mean scores as based on age of the respondent was statistically significant in only scenario B (F (3, 379) = 3.821, P<0.05). Scheffe's multiple comparisons indicated that, in scenario B, ethical recognition mean score of auditors at the age of less than 25 years was significantly less than their counterparts at the age of 35 to less than 45 years, p<0.05. Therefore, a very limited support was found regarding *H2a*.

Regarding the ethical judgment stage, *H2b: Mean Ethical Judgment Scores Will Significantly Increase as Age Increases,* Table 4.2 depicted that ethical judgment mean scores of external auditors who participated in this study were not less than 4.7 for all the four scenarios, thus indicated that, on average, they all judged the ethical issues presented in the scenarios ethically regardless their age. In all scenarios, differences in ethical judgment mean scores as related to age were non-significant. Thus, *H2b* was fully rejected.

#### H2c: Mean Ethical Intention Scores Will Significantly Increase as Age Increases

As shown in Table 4.2, at all age groups, external auditors participated in the study, on average, had no intention to behave unethically as indicated in each of the four scenarios the mean scores for ethical intention in each of the four scenarios were 4.3 or above. There were significant differences in the mean scores of ethical intention in only two scenarios, scenario B (F (3, 378) = 9.638, p<0.001), and scenario C (F (3, 374) = 2.984, p<0.05). Post-hoc analysis revealed that, in scenario B ethical intention mean scores of auditors of age less than 25 years are significantly less than mean scores of auditors at the other three age groups (p<0.001, 0.01). Regarding scenario C, significant differences were between auditors aged 25 to less than 35 years and their counterparts aged 45 to less than 55 years. Younger auditors showed less ethical intention. Thus, *H2c* was partially supported.

In conclusion, ANOVA statistical results showed limited support for differences in auditors' EDM stages as related to age. These findings will be discussed later in the next chapter.

#### 4.3.1.3 Educational Level Differences in EDM Stages

Three hypotheses (H4a, H4b, H4c) were related to examining the differences in EDM stages as related to external auditors' educational level. Descriptive analysis and statistical results of one-way analysis of variance (ANOVA) for the four scenarios employed were presented in Table 4.2 above. Type I errors is an issue that should be mentioned here. In this study, participants were grouped into four educational levels (Bachelor, Postgraduate Diploma, Master, and PhD), however, there was only one respondent grouped as holding a PhD. Inclusion of this group in the ANOVA analysis will make the inequality of sample sizes extreme. In ANOVA analysis, Type I errors are more likely in the case of extreme unequal sample sizes among the groups (Hair et al., 2006; Tabachnick & Fidell, 2007). Therefore, responses related to this respondent were excluded from the analysis. Additionally, ANOVA and t-test was used in this study to examine the association of eight independent variables with three stages of EDM were. Multiple testing employed could make type I errors more salient. Thus, it should be kept to the minimum. Descriptive and inferential statistical results of ANOVA are presented in Table 4.2.

Regarding *H4a: Mean Ethical Recognition Scores Will Significantly Increase as Educational Level Increases*, Table 4.2 indicates that, with the exception of external auditors who holds a master degree in scenario A {mean (SD)= 3.4(2.2)}, on average all external auditors participated in this study, regardless of their educational level, had recognised the ethical issues entailed in the four scenarios as their ethical recognition mean scores were 4.9 or above. Significant differences in ethical recognition mean scores were found in only scenario A (F (2, 384) = 3.461, P<0.05). Post-hoc analysis revealed that, inconsistent with what was hypothesised, in this scenario, ethical recognition mean scores of auditors who holds a Master degree were significantly less than the other two groups, p<0.05). Therefore, *H4a* was rejected.

Regarding the second hypothesis, *H4b: Mean Ethical Judgment Scores Will Significantly Increase as Educational Level Increases,* Table 4.2 showed that, on average, all external auditors who participated in this study had judged the ethical issues presented in the four scenarios as unethical. Their ethical judgment mean scores were 4.1 or above. As based on auditor's educational level, differences in external auditors' ethical judgment mean scores were no statistically significant in any of the four scenarios. This indicated that H4b should be rejected.

Concerning the ethical intention stage, *H4c: Mean Ethical Intention Scores Will Significantly Increase as Educational Level Increases,* external auditors' ethical intention mean scores in all scenarios presented in Table 4.2 were 5.4 or above. This indicates that, on average all external auditors who responded to the questionnaire at all educational levels exhibited no intention to behave unethically. The ANOVA results reported showed that, as based on educational level of the respondent, no significant differences in ethical intention mean scores was found. Thus, *H4c* was rejected.

Overall, it can be concluded that a very limited support was found regarding the differences in external auditors' EDM stages as related to auditor's educational level. Inconsistently, when differences were found, educational level found to be negatively associated with ethical recognition. These findings are discussed further in the next chapter.

#### 4.3.1.4 Audit work Experience Differences in EDM Stages

Theoretical and empirical business ethics literature presented in chapter two (see section 2.4.1.6) generally suggests that differences in EDM stages based on the work experience exist. Years of work of experience are expected to be positively associated with auditors' EDM stages. Three hypotheses were then formulated to examine how work experience of external auditors can make a difference in their mean scores of EDM stages. A one-way ANOVA test was performed and the descriptive and inferential results are shown in Table 4.2.

Concerning H6a: Mean Ethical Recognition Scores Will Significantly Increase as Years of Experience Increases, the ethical recognition mean scores of external auditors who participated in this study are shown in Table 4.2. With the exception of auditors who have more than or equal 25 years of audit work experience in scenario D (mean (SD) = 3.8 (2.5), on average, all participants recognised the ethical issuespresented in the four scenarios employed, mean scores ranged from 4.6 to 6.5. In only two scenarios, as based on length of experience, significant differences in the mean scores of ethical recognition were found {(scenario B, F (5, 383) = 4.559, P<0.001), (scenario D, F (5, 382) = 3.162, P<0.01), post-hoc tests showed that regarding Scenario A, mean ethical recognition scores of auditors with less than five years of work experience were significantly (p<0.05) less than that of auditors with 15 to 20 years of experience. Inconsistently, in scenario D, mean ethical recognition scores of auditors with 15 to 20 years of work experience were significantly (p<0.05) higher than that of auditors having greater than or equal 25 years of experience. Based on these inconsistent results, it can be concluded that a very limited support was found regarding *H6a*.

Concerning the Ethical judgment stage, *H6b: Mean Ethical Judgment Scores Will Significantly Increase as Years of Experience Increases*, Table 4.2 showed that, on average, all the study's participants, at all experience levels, had ethically judged the ethical issues presented in the four scenarios as their ethical judgment mean scores were not less than 4. Significant differences in ethical judgment mean scores were found in two scenarios, scenario A (F (5, 382) = 2.80, P< 0.05), and scenario C (F (5, 382) = 2.498, p<0.05). Post-hoc multiple comparisons indicated that no significant differences exist between auditors as a function of their work experience. Thus, H6b was partially supported.

Regarding *H6c: Mean Ethical Intention Scores Will Significantly Increase as Years of Experience Increases*, Table 4.2 showed that, regardless the length of work experience, all external auditors who participated in the survey had no intention to behave unethically, their ethical intention mean scores, for all scenarios, were above 4.9. Significant differences were found in scenario A (F (5, 380) =3.932, p<0.01), and

scenario B (F (5, 382) =7.152, P<0.001). Post-hoc multiple comparisons showed that ethical intention mean scores of auditors' with less than 5 years work experience were significantly less than auditors with 10 to 15, and 15 to 20 years of audit work experience (p<0.01). Thus, *H6c* was partially supported.

Based on the above results, it can be concluded that differences in EDM stages of external auditors as based on length of work experience found to be partially supported with few inconsistent results regarding ethical recognition stage. A detailed discussion is provided later in the next chapter.

## 4.3.1.5 Position Level Differences in EDM Stages

Based on prior business ethics literature presented and discussed earlier in chapter two earlier (see section 2.4.1.4), the three hypotheses presented below were formulated to examine how auditor's position level can make a difference in the mean scores of EDM stages. Table 4.2 provides the descriptive and statistical results of ANOVA test.

Regarding H3a: Mean Ethical Recognition Scores of Auditors at Higher Position Levels Will Be Significantly Higher Than Auditors at Lower Levels, Table 4.2, it can be concluded that on average, all auditors at different position levels had recognised all ethical issues presented in the scenarios. Their mean ethical recognition scores were not less than 4.6. In only scenario B, significant differences were found in mean ethical recognition scores (F (4, 383) =4.812, p<0.01). Post-hoc multiple comparisons using Scheffe's test revealed that mean ethical recognition scores of auditors at junior/staff/associate level was significantly lower than their counterparts at both the senior auditor/ assistant manager, and manager/senior manager levels (p<0.05). Thus, a very limited support was found for H3a.

With respect to *H3b: Mean Ethical Judgment Scores of Auditors at Higher Position Levels Will Be Significantly Higher Than Auditors at Lower Levels*, Table 4.2 indicated that, in all scenarios, on average, all external auditors at all position levels had judged the ethical issues as unethical, their mean ethical judgment scores were 4.5 or above. Based on auditor's position level, significant differences in ethical judgment mean scores were found in only two scenarios, scenario A (F (4, 382) =3.232, p<0.05), and scenario D (F (4, 382) =3.241, p<0.05). In scenario A, Scheffe's test showed that ethical judgment mean scores of auditors at director/partner level are significantly higher than that of auditors at junior/staff/ associate and senior/assistant manager levels (p<0.05). With respect to scenario D, post-hoc tests indicated that significant differences found were between audit trainees and auditors at manager/senior manager level (p<0.05). Ethical judgment mean scores of audit trainees of audit trainees were significantly less than that of auditors at the manager/senior manager position level. Generally speaking, the results presented above indicated a partial support for H3b.

Concerning the third hypothesis H3c: Mean Ethical Intention Scores of Auditors at Higher Position Levels Will Be Significantly Higher Than Auditors at Lower Levels, Table 4.2 showed that, in all scenarios, mean scores of ethical intention for external auditors at all position levels were not less than 5.2, thus indicates that auditors who participated in this study have no intention to behave unethically. Statistical significant differences in the ethical intention mean scores related to position level were found in only two scenarios, scenario A (F (4, 380) = 3.268, p<0.05), and scenario B (F (4, 382) =7.770, p<0.001). Additionally, post-hoc analysis indicated that significant differences found in scenario A were between auditors at junior/staff/associate position levels and their counterparts at the manager/senior manager levels. In this scenario, ethical intention mean scores of auditors at the manager/senior manager levels are significantly higher than mean scores of auditors at junior/staff/associate levels (p<0.05). Regarding scenario B, ethical intention mean scores of audit trainees were significantly lower than that of both managers/senior managers and directors/partners (p<0.05). Additionally, ethical intention mean scores of junior/staff/associate auditors were also significantly lower than that of their counterparts at managers/senior managers and directors/partners levels (p<0.01). These results generally provided a partial support for *H3c*.

To sum up, the above results generally indicated that although significant differences exist in auditors' EDM stages as based on auditors' position level, these differences are partially supported and might be dependent on the type of ethical issues (scenarios) auditors may face. These findings are discussed further in chapter five.

#### 4.3.1.6 Professional Certification Differences in EDM Stages

The very limited empirical studies that have been done regarding the impact of professional certification on external auditors' EDM suggested that EDM differences may exist among external auditors as based on whether the auditor holds a professional certification or not. In this study, Professional certification effects on external auditors' EDM stages were formulated in three hypotheses (H5a, H5b, H5c), they entail how the mean scores of EDM stages of external auditors might be affected by holding a professional certification. The t-test statistical results related to these hypotheses are presented in Table 4.2 above.

Regarding hypothesis *H5a: Mean Ethical Recognition Scores of Certified Auditors Will Be Significantly Higher Than Those Uncertified,* Table 4.2 above illustrates that, regardless their certification status, on average, Egyptian external auditors who responded to the questionnaire have recognised the ethical issues represented in each of the four scenarios, their mean scores of ethical recognition was 4.9 or above. In all scenarios, mean ethical recognition scores of certified respondents were higher than their uncertified counterparts. However, statistical significant differences in mean ethical recognition scores between certified and uncertified auditors were found in only two scenarios, scenario B (t (370) =3.601, p<0.001), and scenario C (t (370) =2.661, p<0.01). These results indicated a partial support for *H5a*.

For the ethical judgment stage, *H5b: Mean Ethical Judgment Scores of Certified Auditors Will Be Significantly Higher Than Those Uncertified*, Table 4.2 indicates that all participants in this study, regardless their certification status judged the ethical issues in each scenario as unethical. Mean scores of ethical judgment was 5.1 or above. Differences in ethical judgment mean scores was significant in only scenario C (t (370) =2.076, p<0.05). Mean ethical judgment scores of certified auditors were significantly higher than that of uncertified auditors. Therefore, there was a very limited support for *H5b*. For the ethical intention stage, *H5c: Mean Ethical Intention Scores of Certified Auditors Will Be Significantly Higher Than Those Uncertified*, Table 4.2 shows that all external auditors who responded to the questionnaire had no intention to behave unethically as presented in the scenarios. Their mean ethical intention scores were above 5.2. In each of the four scenarios, mean ethical intention scores of certified auditors were higher than those uncertified. These differences reach statistical significance in only two scenarios, scenario A (t (368) = 3.273, p<0.01), and scenario B (t (369) = 3.804, p< 0.001). Therefore, a partial support was found for *H5c*.

To summarise, these results, generally indicated a partial support for the differences in EDM based on the certification status of the respondent. These results were discussed in the next chapter.

#### **4.3.1.7** Firm Size Differences in EDM Stages

Based on prior business ethics literature presented in chapter two (see section 2.4.2.1), organisational size may impact EDM process. Auditors employed in large firms are expected to exhibit more ethical choices than auditors employed in smaller firms. Three hypotheses were formulated for testing the impact of organisational (firm) size on EDM stages of external auditors. Table 4.3 presents the descriptive and statistical results of independent samples t-test.

Regarding *H7a: Mean Ethical Recognition Scores of Those Works in Big X Firms Will Be Significantly Higher Than Those Who Works for Smaller Firms,* it was found that, regardless of the size of the firm where external auditors are employed, on average, all external auditors sampled have recognised the ethical issues presented in the four scenarios. Table 4.3 indicates that their ethical recognition mean scores were not less than 4.2. Significant differences in the mean scores of ethical recognition among external auditors based on the size of the firm were found in two scenarios, scenario A (t (389) =4.744, p<0.001), and scenario D (t (389) =2.588, p<0.05). In these two scenarios, the mean scores of ethical recognition of external auditors who work for Big-X firms were significantly higher than their counterparts who work for non-Big-X firms. Thus, there was a partial support for *H7a*. For the ethical judgment stage, *H7b: Mean Ethical Judgment Scores of Those Works in Big X Firms Will Be Significantly Higher Than Those Who Works for Smaller Firms,* in this study, Table 4.3 indicates that, on average, all external auditors who responded to the survey have judged the auditors' actions presented in the four scenarios as unethical. Their mean scores to the ethical judgment item were 4.5 or above regardless of the size of the firm. In only two scenarios, significant differences were found in mean ethical judgment scores between external auditors who works for Big-x firms and those who work for smaller firms {(scenario A (t (389) =2.170, p<0.05), scenario D (t (389) =4.171, p<0.001)}. Mean ethical judgment scores of external auditors who work for Big-X firms were significantly higher than their counterparts who work for smaller firms. Thus, *H7b* found to be partially supported.

Regarding *H7c: Mean Ethical Intention Scores of Those Works in Big X Firms Will Be Significantly Higher Than Those Who Works for Smaller Firms,* table 4.3 above shows that, on average all external auditors who participated in the study, had no intention to behave unethically. Their ethical intention mean scores were 5.3 or above. The t-test results found no significant differences in ethical intention mean scores as based on whether auditors work for big-X or non-big-X firms. Thus, it can be concluded that *H7c* was not supported. In conclusion, partial support was found regarding the differences in EDM process as based on firm size where the external auditors are employed. These results are discussed in the next chapter.

#### 4.3.1.8 Code of Ethics Differences in EDM Stages

An objective of this study was to identify significant differences in EDM stages between auditors who are employed in audit firms with organisational code of ethics in effect and those who are employed in audit firms where no code of ethics exists. Thus, three hypotheses were formulated regarding the effect of the existence of firm's code of ethics on each stage of EDM process. Prior business ethics literature presented in chapter two (see section 2.4.2.2) suggests that the existence of an organisational code of ethics is likely to be positively associated with EDM stages. Table 4.3 above presented the descriptive statistics and results concerning the t-test for external auditors in the four scenarios employed in this study. Concerning the first hypothesis related to the ethical recognition stage: *H8a: Mean Ethical Recognition Scores Will Be Significantly Higher for Those Works in Firms with Code of Ethics,* Table 4.3 indicates that on average external auditors recognise the ethical issues presented in the four scenarios regardless the existence of code of ethics within audit firms they work for. However, there were no significant differences between external auditors who work for firms that have code of ethics and those who work for firms that do not have. Thus, *H8a* was rejected.

Regarding *H8b: Mean Ethical Judgment Scores Will Be Significantly Higher for Those Works in Firms with Code of Ethics.* Table 4.3 illustrates that, on average all participants, regardless of whether the firm they work for has a code of ethics or not, have judged hypothetical auditor's actions presented in the four scenarios as unethical (mean= 4.9 or above). Significant differences between both auditors' groups were found in two scenarios, Scenario A {t (366) = 2.596, (p<0.05)} and scenario C {t (366) = 1.824, (p<0.05)}. In these two scenarios, the mean score of ethical judgment of auditors who work for firms where no code of ethics exists were significantly lower than that of those who work for audit firms which have a code of ethics. Overall, these results indicate a partial support for *H8b*.

With respect to *H8c: Mean Ethical Intention Scores Will Be Significantly Higher for Those Works in Firms with Code of Ethics.* Table 4.3 shows that, on average, in all scenarios employed, external auditors who participated in this study have no intention to behave unethically as depicted in each scenario. Their mean ethical intention scores were 4.6 or above. The t-test results found significant differences in the ethical intention mean scores in only scenario A, {t (364) = 3.132, (p<0.001)}. T-test results found that participants who work in firms that have code of ethics have higher ethical intention scores (mean= 5.1) that those who work in firms with no code of ethics (mean= 4.6). Thus, there was a very limited support for *H8c*.

Based on these results, it can be concluded that limited differences in EDM process based on the existence of code of ethics were found. A further discussion of these findings is provided later in the next chapter.

## 4.3.2 Multiple Regression Analysis of Continuous Variables

Using ANOVA and t-test, the statistical results related to six personal variables (age, gender, educational level, position level, certification status, and work experience), and two organisational variables (firm size, and code of ethics) in relation to external auditors' EDM stages were presented in the last section, and few significant results were found. Apart from those categorical variables, several continuous variables were also examined in this study, including two personal variables (personal moral philosophy and professional commitment), four ethical climate types (organisational variable), and dimensions of moral intensity. Hierarchical linear multiple regression analysis was also used to examine the impact of those continuous variables on the first three stages of external auditors' EDM stages.

Although the categorical variables examined earlier employing ANOVA and t-test could be entered into the regression model, it was decided to exclude them from further regression analysis, for two reasons: firstly, since analysis of categorical variables showed limited significant results (e.g., age, educational level, code of ethics), thus including them in the regression model will not add significantly to the regression results. Researchers have adopted a similar approach in the EDM literature (Musbah et al., 2016). Secondly, correlational analysis revealed significant correlation between continuous independent variables and dependent variables (EDM stages) (see appendix D). In this section, across four audit ethics scenarios, the statistical results related to testing two personal variables (personal moral philosophy, professional commitment), four types of ethical climate (Egoistic-individual, Egoistic-local, benevolent-cosmopolitan, principle-cosmopolitan), as well as moral intensity dimensions in relation to the first three stages of external auditors' EDM process (ethical recognition, ethical judgment, ethical intention), are presented.

## 4.3.2.1 Methods of Multiple Regression

There are different methods of multiple regression analysis which are commonly used in social and behavioural research, including forced entry methods, in which all predictors are forced into the regression model simultaneously, and stepwise methods, such as forward and backward methods, in which independent variables are individually assessed for their contribution to the predictive power of the model, and predictors will be then removed or added to the model if they relatively contribute to the success of the model (Hair et al., 2006). In this study, the impact of several predictors (personal, organisational, and moral intensity variables) on external auditors EDM stages were examined, a hierarchical linear multiple regression method, where predictors were entered into the regression model cumulatively, was considered appropriate. Hierarchical multiple regression was chosen over other methods as it enabled the researcher to identify how much more each independent variable (e.g., professional commitment) predicts the dependent variable (EDM stage) over and above other independent variables entered firstly into the model.

An issue related to the application of hierarchical multiple regression analysis, is the order of variable entry as this could influence significantly the values of regression coefficients as well as the overall model fit (Field, 2009). The sequence of variable entry into the regression model should follow a theoretical underpinning or at least a logical order. In this study, prior literature provides very limited theoretical ground that may guide the researcher on the sequence of variables to be entered into the regression models. However, a logical sequence has been adopted here. Personal variables are inherently and logically prior to organisational variables, and organisational variables are common in all ethical issues even with distinct degrees of moral intensity. Accordingly, for each EDM stage examined, personal variables have been entered prior to organisational variables, the two dimensions of personal moral philosophy (idealism and relativism) were entered prior to professional commitment, since they produced the most consistent results in the business ethics literature (O'Fallon & Butterfield, 2005), then the two dimensions of professional commitment (affective and normative) were entered in the second stage. The four types of ethical climate, examined in this study were entered in the third model, and then the dimensions of moral intensity were entered in the fourth model, and finally the IM as a measure of social desirability response bias was entered in the last model. Although there has been little agreement about the order of variable entry in the business ethics literature, several researchers have employed the sequence of variables entry adopted here (Bateman, Valentine, & Rittenburg, 2013; Musbah et al., 2016; Sweeney et al.,

2010; Sweeney & Costello, 2009; Valentine & Bateman, 2011; Yang & Wu, 2009). Hierarchical multiple regression method has several requirements and assumptions that should be met before drawing inferences based on the results obtained. These requirements and assumptions are discussed next.

# 4.3.2.2 Requirements for Conducting Multiple Regression Analysis

Like any other parametric statistical tool, several requirements and assumptions shall be met and supported before drawing any inferences concerning multiple regression results. Requirements concerning measurement issues, sample size, and linear relationship are some examples.

# 4.3.2.2.1 Measurement Issues and Sample Size

How the variables, entered into a regression models, were measured is one of the most important issues that should be addressed regarding the regression analysis. The regression analysis is based on an assumption that interval scales or ratios are used to measure all predictors. The present study fulfills this requirement as interval scales (7points Likert scale) were used in the measurement of independent and dependent variables. The issue of sample size is also crucial in conducting a regression analysis;  $R^2$ , which is the regression coefficient of determination, may be influenced by sample size. Several authors have provided recommendations concerning the number of cases required to enter into multiple regression model. In this regards, Tabachnick and Fidell (2007) recommend a minimum of 15 cases for each independent variable in the model. Likewise, to obtain robust regression results, several scholars (e.g., Field, 2009; Hair et al., 2006) recommend that minimum sample size of 15 to 20 cases for each predictor entered into the multiple regression model. In this study, at least 10 independent variables are tested in relation to EDM stages, thus the minimum sample size required is 150 cases. There were more than 15 cases for each independent variable entered into the regression models, and therefore the samples size is sufficient for the multiple regression analysis.

#### 4.3.2.2.2 Multicollinearity

In a multiple regression model, it is problematic to draw inferences about the effect of a single independent variable when it is highly correlated with other independent variable(s) (Brace, Kemp, & Snelgar, 2009). A perfect linear relationship between two or more of the predictors should not exist. The problem of multicollinearity exists when two or more independent variables are highly correlated (Field, 2009). Strong correlation that exists between independent variables makes it difficult to draw inferences regarding the individual effect of each independent variable (Saunders et al., 2009). Correlational analysis among predictors of a regression model is one of the simple diagnostics of multicollinearity (Saunders et al., 2009). In this regards, it is argued that a high correlations that indicates a substantial collinearity are 0.9 or higher (Hair et al., 2006). However, it is maintained that very high correlations of 0.8 or above represent a critical multicollinearity problem (Cooper & Schindler, 2008). In which case, correlation coefficients among the predictors examined in this study are presented in Appendix C and indicates no causes of concern. No strong correlations (0.8 or higher) were identified, thus denoting no critical multicollinearity problems. Additionally, collinearity statistics provided by the multiple regression analysis was used to assess this issue, collinearity measures such as variance inflation factor (VIF), which should be less than 10, and tolerance value, which should be less than 0.1 (Brace et al., 2009; Hair et al., 2006), are presented in Appendix E, and shows no VIF values reached 10 or tolerance value reached 0.1. Thus, it can be concluded that, in this study, multicollinearity do not exist within the regression models.

#### 4.3.2.2.3 Linearity, Normality, and Homoscedasticity

Normality, linearity and homoscedasticity are other important assumptions that should be addressed before conducting a regression analysis. A primary assumption for multivariate analysis is normality, which refers to the extent to which the data distribution for an individual variable corresponds to a normal distribution. Linearity refers to the existence of a linear relationship between dependent and independent variables, regression analysis is based on correlations and correlation is grounded on linear relationships. Regression analysis also assumes that residuals at each level of the predictors should have the same variance; this is referred to as homoscedasticity. In this study, the assumptions of normality, linearity and homoscedasticity appear to have been supported. The scatterplots of standardised residuals (Y axis) by standardised predicted values (X axis) have been widely used to check for regression assumptions of normality, linearity, and homoscedasticity (Hair et al., 2006). Visual examination of scatterplots (see Appendix F) indicates no substantial violation of the normality assumption, no clear evidence of heteroscedasticity, and absence of nonlinear relationships among the variables examined in the regression models. For each of dependent variables in the four scenarios employed in this study, the scatterplot shows that the distributions of residual take a rectangular rather than a funnel shape and that they are evenly distributed around the Zero point. Additionally, there were minimal outliers appearing in the scatterplot graphs.

# 4.3.2.2.4 Outliers and Influential Values

Checking for outliers and/or influential observations is another important issue that should be considered to enhance generalisation and accurately drawing inferences from the regression results. Observations that have large residual values that can be identified only regarding a specific regression model are termed outliers, while influential observations are those that have a disproportionate impact on the regression results. Those cases should be identified to determine whether they should be excluded (Hair et al., 2006). To examine the research data for outliers, the casewise diagnostics embedded within the regression analysis was used, threshold levels for a case standardised residual to be identified as outliers is  $\pm 2.5$  (Hair et al., 2006). In this study, for each regression model, case-wise diagnostics has found some cases that fall outside these ranges. In this regards, it is reasonable to expect about 1% of observations identified as outliers (Field, 2009). In this study, although some outliers have been identified and they are slightly more than acceptable ranges (there were less than 20 observations), to determine influential values, so that to decide whether to retain or omit them from the regression analysis, Mahalanobis' Distance, and Cook's Distance values were used. Although there were cases exceeding the threshold of Mahalanobis' Distance value of 32.90 for the 12 independent variables examined in the regression model (Tabachnick & Fidell, 2007), the maximum Cook's Distance value in all of the regression models was not greater than one (Tabachnick & Fidell, 2007), thus indicating that if these cases removed, they would not make any

differences in the results obtained.

#### 4.3.2.2.5 Independence of the Residuals

Regression analysis assumes that residual terms for any two observations are unrelated. In this study, Durbin Watson results provided by the multiple regression analysis were used to check for this issue. The Durbin-Watson values range from zero to four; a value near 2 indicates non-correlation of residuals, a value towards zero indicates positive correlation, and a value near 4 indicates negative correlation. In this study, the Durbin-Watson results indicates no correlation between the adjacent residuals, that is all Durbin Watson values are very close to 2 (see Appendix E). Therefore, this assumption was met.

#### 4.3.2.3 Dimensionality of Moral Intensity

As discussed earlier in chapter two, section 2.4.3, while Jones (1991) originally conceptualised moral intensity construct as a multi-dimensional construct composed of six dimensions, he also suggests that dimensions of moral intensity could be aggregated into one construct. The dimensionality of the moral intensity construct has thus been largely tested by several scholars with inconclusive results reported (Sweeney et al., 2013). Research on the dimensionality of moral intensity dimensions into the regression models of EDM stages, the factor structure of moral intensity dimensions has been tested for. In this regard, where significant interrelationships exists among a considerable number of variables, factor analysis could help in identifying the structure underlying this set of variables (moral intensity dimensions) and effectively extracting information for large bodies of interrelated data (Hair et al., 2006).

In this section, an exploratory factor analysis (EFA) was employed to identify the dimensionality of moral intensity in the Egyptian external audit context for each of the four scenarios. One of the main objectives of this study is to identify the dimensions of moral intensity regarding the external audit ethical scenarios presented to participants, and to determine their impact on external auditors' EDM stages. Factor analysis is beneficial in achieving this objective. Factor analysis has been

identified as a widely and commonly used statistical procedure, it enables researchers to identify and control for measurement errors that usually contaminate measurement of unobservable constructs (Zhang & Preacher, 2015). For refining measures, assessment of construct validity, and testing hypotheses in some studies, factor analysis can be useful (Conway & Huffcutt, 2003).

Forms of factor analysis are many. Two fundamental types of factor analysis exist, the exploratory type (EFA) and confirmatory type (CFA). Although they are similar in some respects, distinctive characteristics between the two exist. While EFA examines variables interrelatedness without prior identification of the extent to which results will fit a particular model, CFA measures the extent to which data matches with a given hypothetical factor model (Hair et al., 2006). In this study, which is exploratory in nature, EFA was considered more appropriate as it allows the statistical results to determine the number of factors (dimensions) of the moral intensity items.

# 4.3.2.3.1 Requirement for Conducting Factor Analysis

To obtain meaningful results, several important requirements must be met in order to interpret and generalise the results of the factor analysis including issues related correlation among examined variables, measurement issues, and sample size. These issues are to be discussed in the following subsections.

#### *4.3.2.3.1.1* Variable Measurement and Sample Size:

One of the initial requirements concerning the factor analysis is related to how variables are measured. Factor analysis is based on an assumption that all variables must be measured on a continuous scale such as interval/ratio (Hair et al., 2006). In this study, in four ethical scenarios, moral intensity variables were measured using a 7-point Likert scale, which has been widely treated, as approximately interval (Field, 2009). Also the sample size is regarded as very important before factor analysis, the stability of the factor model results is largely dependent on the sample size and on the number of cases required per variable (Hair et al., 2006). Although there is a significant divergence of opinion regarding the required sample size to factor analyse and obtain meaningful and stable results, it is widely accepted that the larger the sample used in applications of factor analysis, the more precise and stable the

estimates generated of factor loadings (MacCallum, Widaman, Zhang, & Hong, 1999; Schmitt, 2011). In general, a sample size of fewer than 50 cases should not be used in factor analysis, and a sample size of 100 or larger is preferable. In this regard, Hair et al. (2006) suggest that the desired cases that should be factor analysed is not less than five times the number of variables to be analysed. In this study, for each of the four scenarios, 12 items were factor analysed and there were at least 60 cases for each variable used in factor analysis.

## 4.3.2.3.1.2 Correlation and Variable Selection

It has been recommended that variables (items) should be conceptually appropriate for factor analysis, that there should be always a conceptual underpinning of the variables included in the factor analysis to ensure that conceptually defined dimensions can be represented by the derived factors. Thus, it is essential to ensure that all items are conceptually appropriate and correlated to use in factor analysis. In this study, theoretically, all items represent a conceptually single construct (moral intensity). A preliminary internal reliability analysis (consistency) for the moral intensity items was conducted before proceeding with factor analysis. Internal reliability analysis helps to ensure that all moral intensity items are measuring the same construct. It measures the degree of consistency among a set of variables (items) in what they are intended to measure (Hair et al., 2006). Cronbach's alpha is the most widely used measure for internal consistency (Bryman & Bell, 2011). The item to total correlation (ITTC) provided by the reliability analysis was used to purify the moral intensity items before factor analyse. Results pertaining to reliability analysis and ITTC of moral intensity items were presented in Table 4.4.

	Scenario	Scenario	Scenario	Scenario	
Moral Intensity Items & Scenarios	Α	В	С	D	
The overall harm (if any) as a result of auditor's action would be very small (MC* overall)	.506	.343	.493	.417	
The auditor himself would be significantly harmed as a consequence of this action (MC, The auditor himself)	.629	.592	.565	.704	
The audit firm where the auditor is employed would be significantly harmed as a consequence of this action (MC, The audit firm)	.619	.671	.692	.742	
Stakeholders of the client company would be significantly harmed as a consequence of this action (MC, Stakeholders)	.495	.604	.657	.551	
Your superiors would agree that auditor's action is wrong (SC, Superiors)	.502	.581	.470	.744	
Most auditors at your level in your firm would agree that auditor's action is wrong (SC, Co-auditors)	.619	.552	.580	.742	
Most members of the audit profession in general would agree that auditor's action is wrong (SC, Audit Profession overall)	.599	.549	.607	.690	
Auditor's action will not cause any harm in the immediate future (TI, Short term)	.451	.432	.546	.586	
Auditor's action will not cause any harm in the long term (TI, Long Term)	.651	.445	.559	.555	
Auditor's action will harm very few people, if any (concentration of effect)	.277	.266	.352	.249	
Auditor's action would be wrong if he/she is a personal friend of the person(s) harmed (Proximity of Harm)	142	063	.163	163	
There is only a very small chance that auditor's action will actually cause harm (Probability of Effect)	.517	.352	.388	.391	
Cronbach's Alpha	.806	.783	.840	.845	

Table 4.4 Reliability Analysis & Item to Total Correlation of Moral Intensity Items

\* MC: Magnitude of consequences; SC: Social Consensus; TI: Temporal Immediacy

Table 4.4 shows the ITTC of moral intensity items for each of the four scenarios, this preliminary analysis did indicate that some items have low correlations with the total items suggesting that these items may not be measuring the same construct. Consequently, in this study, according to Nunnally (1978), any items which correlated less than the minimal acceptable of ITTC score of 0.4 were excluded from further factor analysis. In all scenarios, items related to concentration of effect and proximity were excluded as they did show very low correlations with the total items (ITTC ranging from -.163 to .352). Similarly, the single item employed to measure probability of effect showed low ITTC in three of the four scenarios (ITTC ranging from .352 to .391). With respect to the remaining items, except for an item regarding the overall magnitude of consequences that showed low ITTC in all scenarios, ranging from .417 to .742.

After purification of the items and the removal of the low correlated items, Bartlett's test of sphericity (BTS) provided by exploratory factor analysis was also used to

check for intercorrelations among the items subjected to factor analysis. It indicates the statistical significance of the correlation matrix that has a significant correlations among at least some of the variables (Hair et al., 2006). Variables (items) are considered appropriate for factor analysis if the BTS is statistically significant. Table 4.5 indicates that, in all scenarios, BTS was found statistically significant (P<0.001).

To quantify the degree of intercorrelations among the variables (moral intensity items) and the appropriateness of factor analysis, Kaiser-Meyer-Olkin measure of sampling adequacy was also employed. This measure's index ranges from 0 to 1. While 0.7 or above is considered middling, 0.8 or above is considered meritorious (Hair et al., 2006). In this study, Table 4.5 shows that, in two scenarios (scenarios B & C), Kaiser-Meyer-Olkin measure was above 0.7, while it was above 0.8 in the other two scenarios (Scenarios A & D). In general, based on these results, it can be concluded that intercorrelations among moral intensity items was significant and appropriate for factor analysis.

## 4.3.2.3.2 Exploratory Factor Analysis Results

Table 4.5 provides the results of exploratory factor analysis of moral intensity items for each of the four scenarios.

#### 4.3.2.3.2.1 Factors Extraction

A significant consideration for conducting factor analysis is the model used to extract the factors parameters, regarding EFA employed in this study, there are two major extraction methods for defining the factors (dimensions) to represent the structure of the moral intensity items, they are, principal components model and common factor model. In this study, principal components extraction was employed as it allows for the full variance of the items to be brought into the factor matrix, in contrast to common analysis which excluded a portion of the variance (Hair et al., 2006). Principal components model is most appropriate when the focus on obtaining a minimum number of factors to account for the maximum portion of the total variance. Principal components factor model is generally considered the more frequently used extraction model for EFA (Schmitt, 2011). Eigenvalues of each factor extracted will be used to determine the number of factors to be extracted; Eigenvalues represents the relative importance of each factor in accounting for the variance associated with the set of variables (items). Depending on eigenvalues, the number of factors to be extracted was determined. Factors with eigenvalues greater than 1.0 should be extracted (Hair et al., 2006). Table 4.5 below presents the rotated factor matrix in each of the four scenarios and indicates that two factors were extracted in each of the four scenarios, as their eigenvalues were greater than 1.0.

The first factor extracted composed of six items in all scenarios. Eigenvalues of this factor ranges from 3.565 in scenario A to 4.379 in scenario D. The second factor composed of two items (scenario B), three items (scenario C & D), and four items in scenario A. Eigenvalues of this factor were between 1.867 and 2.664). The cumulative percentage indicates that these two factors together explained from 62% (scenario A) to approximately 76 % (scenario D) of the variance in the moral intensity items. While the first factor explained from approximately 36% in scenario A to 51% in scenario B, the second factor explained between approximately 23% in scenario B and about 29% in scenario C.

Factor loadings were also employed to assess the degree of correlation between the variable and factors; it could be positive indicating a positive correlation, or negative correlation. All of the items in the first factor had positive loadings ranging from .572 to .894 in all scenarios; also all items in the second factor have a positive contribution ranging from .664 to .928.

## 4.3.2.3.2.2 Factors Rotation

Rotation of the factors is perhaps the most important method for interpreting the factors generated from the initial components matrix. In this study, the unrotated factor solution has failed to result in a clean set of factor loadings. Thus, factor rotation was used to obtain a clear factor structure. Factor rotation refers to the rotation of the reference axes of the factors, they are turned about the origin until some other position has been reached (Hair et al., 2006). To obtain more meaningful factor patterns, Factor rotation aids researchers to interpret the EFA results through identifying several large factor loadings for each factor (Zhang & Preacher, 2015). Even though, variables (items) may be obviously clustered in the initial correlation

matrix, factors are unlikely to be identified by the initial factor extraction method without factor rotation (Schmitt, 2011).

In general, orthogonal rotational methods are the most widely used, and it is the preferred method when the researcher goal (as in this study) is data reduction to generate a set of uncorrelated measures for subsequent use in other multivariate analysis (regression analysis), and to avoid multicollinearity problems among dimensions of moral intensity (Hair et al., 2006). Three major orthogonal approaches exist, they are, Quartimax, Varimax and Equimax. To improve the interpretation of the factor matrix, an orthogonal rotational approach (VARIMAX) was employed to simplify the factor matrix and facilitate the interpretation of factors. Varimax rotational approach is widely adopted to factor analyse moral intensity in prior ethics research (Valentine & Bateman, 2011). The impact of the Varimax rotational approach on the overall factor solution in each of the four scenarios as well as the factor loadings are presented in Table 4.5.

Items & Scenarios*	Scenario A		Scenario B		Scena	ario C	Scenario D	
items & Scenarios"	1	2	1	2	1	2	1	2
MC (overall)		.664	DI	EL.		.822		.747
MC (The auditor himself)	.816		.785		.753		.850	
MC (The audit firm)	.808		.810		.754		.849	
MC (Stakeholders)	.572		.709		.660		.713	
SC (Superiors)	.816		.889		.766		.885	
SC (Co-auditors)	.787		.884		.831		.894	
SC (Audit profession Overall)	.681		.860		.841		.883	
TI (Short-term)		.852		.928		.917		.927
TI (long-term)		.807		.918		.927		.926
<b>Concentration of effect</b>	DI	EL.	DEL.		DEL.		DE	EL.
Proximity of Harm	DEL.		DEL		DEL.		DE	EL.
Probability of effect	.787		DEL		DI	EL.	DEL.	
Eigenvalues	3.565	2.664	4.091	1.867	3.603	2.586	4.379	2.428
% Variance explained	35.65	26.63	51.14	23.34	40.03	28.73	48.65	26.97
Cumulative %	35.65	62.28	51.14	74.48	40.03	<b>68.</b> 77	48.65	75.63
Cronbach's alpha	0.863	0.904	0.904	0.870	0.873	0.888	0.929	0.849
BTS: Chi-square	1827.402*** (45)		2064.914*** (28)			71*** 6)	2948.108*** (36)	
KMO Measure of Sampling Adequacy	0.8	321	0.797		0.7	769	0.826	

**Table 4.5 Factor Analysis Results of Moral Intensity Items** 

\*DEL: Deleted item; MC: Magnitude of Consequences; SC: Social Consensus; TI: Temporal Immediacy

\*\*\* Significant at  $\leq 0.001$  Level

# 4.3.2.3.2.3 Factor Naming

After evaluating the rotated factor loadings for each item, no variables needed deletion and the extraction and rotational approaches (principal components with Varimax rotation) employed was found acceptable, a satisfactory factor solution has been reached, as indicated in table 4.5 above, two factors (dimensions) of moral intensity were generated to identify moral intensity of the four ethical issues presented to Egyptian external auditors. After reviewing the items loaded in each factor, each factor was then assigned a name according to the variables (items) that loaded highly in each factor. The process of naming factors is based primarily on the subjective opinion of the researcher.

Regarding the first factor, in all scenarios, it comprises six items related to the harm that may be done to the auditor himself, the audit firm where the auditor is employed, and the stakeholders of the client company, as well as the three items concerning the perceived social consensus (superiors, co-auditors, audit professionals in general) regarding the ethicality of the unethical act presented in each scenario. All of the items in the first factor had positive loadings ranging from .572 to .894. A review of these items indicates they all reflect issues related to the ethical decision maker himself and his social surroundings, either in the form of the harm that may be done, or the consensus regarding the rightness or the wrongness of the unethical act portrayed in each scenario. Therefore, this factor was labelled social pressure (SP), as it incorporates the social aspects of the ethical issue in question, with higher scores indicating higher perceived social pressure regarding the unethicality (wrongness) of the auditor's action described in each scenario. Table 4.5 above indicates that this dimension explained between approximately 36% in scenario A and 51% in scenario B. Regarding the reliability of the items loaded in this factor, table 4.5 above indicates that Cronbach's alpha for scenarios A (0.863), B (0.904), C (0.873), and D (0.929) were all above acceptable reliability levels.

Regarding the second factor, it comprises three items in two scenarios (scenario C and D), and only two items in scenario B, while composed of four items in scenario A. Despite the inconsistent number of items composing this factor among the four scenarios, all items in this factor have a positive contribution ranging from .664 to .928. A review of the items revealed, firstly, the common use of the terms, such as, "harm done", "will actually cause harm", and "will not cause harm", and secondly, the implicit degree of certainty regarding the harm that may be done to the victims as a result of the unethical act, all these implies that these items are so near to represent the actual harm that may be done as a result of the unethical action portrayed in the scenarios. Accordingly, this factor was named actual harm (AH), as this factor focuses on the harm that may result for the ethical issue. Higher scores indicate higher perceived actual harm. Table 4.5 above indicates that this dimension explained between approximately 23% in scenario B and around 29% in scenario C. Regarding the reliability of the items loaded in this factor, table 4.5 above indicates that Cronbach's alpha for scenarios A (0.904), B (0.870), C (0.888), and D (0.849) were all also above acceptable reliability levels.

# 4.3.2.4 Regression Models of EDM Stages

After the initial analysis of dimensionality of moral intensity and reliability of the measures, two dimensions of moral intensity were consistently found in the four scenarios, namely, social pressure and actual harm. Based on the average scores of the items comprising each dimension, a summated scale of the two factors obtained was developed and then used in the further regression analysis.

Hierarchical linear multiple regression was used to test the influence of continuous variables on EDM stages, including personal moral philosophy and professional commitment (personal variables), ethical climate types (organisational variable) and the two moral intensity dimensions, social pressure and actual harm. To assess the goodness of fit of the regression model to the data of this study, the values of  $\mathbf{R}^2$  will be used,  $\mathbf{R}^2$  measures how much of the variance in the dependent variable (criterion) (ethical recognition) can be explained by the variance in the independent variable(s) (predictors) (Hair et al., 2006).

In this study, for each EDM stage examined, the multiple regressions consist of five models as indicated earlier.  $\Delta R^2$  values will be used to assess the changes in the regression models. Tables 4.6, 4.7, and 4.8 presented the results of hierarchical linear multiple regressions in the four scenarios employed for ethical recognition, judgment, and intention respectively. Regarding the study's hypotheses testing, only the results presented in the fifth model will be considered, when all variables examined are included in the regression hierarchy.

## 4.3.2.4.1 Ethical Recognition

As shown in table 4.6, model 1 indicates that, personal moral philosophy, idealism dimension in specific, explained 2% to 10% of the variation in ethical recognition with an acceptable statistical significance level in only three of the four scenarios (p< 0.05 in scenario A, p<0.01 in scenario D, and p<0.001 in scenario B). Including professional commitment dimensions (model 2) added significantly to the model in only scenario C ( $\Delta R^2 = 0.059$ , p<0.001). When the ethical climate types were included (model 3), these proportions have been raised to become ranging from 7.8%

in scenario A to 12.3% in scenario D, the regression model was statistically significant in all scenarios (p-values <0.001 in scenarios B, C, and D, where p-values < 0.01 in scenario A). These changes ( $\Delta R^2$ ) was also statistically significant in three of the four scenarios (p<0.01 in scenarios A and C, whereas p<0.001 in scenario D. A substantial improvement to the model fit occurred after adding moral intensity dimensions (social pressure and actual harm). The four predictors together (model 4) explained from 24.3% of the variation in external auditors' ethical recognition in scenario B to 48% in scenario D. Models were also statistically significant in all scenarios (p<0.001). These improvements in the model fit ( $\Delta R^2$ ) were statistically significant (p<0.001). Including the SDRB in the fifth model resulted in a very slight improvement to the model in only two scenarios, scenario A ( $\Delta R^2 = 0.003$ ) and scenario D ( $\Delta R^2 = 0.013$ ). Nevertheless, these minor changes ( $\Delta R^2$ ) were statistically significant in only scenario D (p<0.01). As a test for robustness, regression models for ethical recognition for the four scenarios were reran including all the variables (categorical and continuous) and no significant changes have been found except for principle/cosmopolitan climate (PC) became significant (p<0.05) in only one scenario (i.e. scenario B).

Variable	es &Scenarios								Scenario C Scenario					
v ariabie	es a scenarios	В	St.E	β	В	St.E	β	В	St.E	β	В	St.E	β	
Model 1	Constant	2.850	.997		4.616	.715		5.476	.894		1.911	1.059		
	Idealism	.387	.153	.144*	.377	.110	.188**	.053	.137	.022	.484	.162	.169**	
	Relativism	.000	.087	.000	267	.064	227***	083	.080	059	.117	.094	.071	
	$\mathbf{R}^{2}(\mathbf{F})$	.021 (3.284)*			.10	.100 (17.095)***			.004 (.68	8)	.030 (4.744)**			
Model 2	Constant	3.193	1.082		4.319	.774		3.902	.946		1.843	1.146		
mouel 2	Idealism	.423	.158	.158**	.328	.114	.163**	028	.138	012	.543	.168	.190**	
	Relativism	011	.087	007	253	.065	215***	063	.079	045	.102	.095	.062	
	APC	109	.120	063	.151	.088	.116	.175	.107	.112	192	.129	104	
	NPC	.020	.094	.014	067	.069	063	.213	.085	.166*	.184	.102	.121	
	$\mathbf{R}^{2}(\mathbf{F})$		.024 (1.86			08 (9.299			53 (5.159			041 (3.288		
	$\Delta R^2 (\Delta F)$		.003 (.46	6)		.008 (1.4	53)	.0.	59 (9.591	)***	.011 (1.807)			
		1 460	1 222		3.911	.916		3.905	1.094		.574	1.303		
Model 3	Constant	1.469	1.233	120			1.40*			0.50			1244	
	Idealism	.322	.165	.120	.298	.122	.148*	120	.146	050	.382	.174	.134*	
	Relativism	056	.087	037	256	.066	218***	058	.078	041	.075	.092	.045	
	APC NPC	098 .060	.122 .101	057 .043	.160 065	.092 .076	.122 061	.120 .090	.109 .091	.077 .070	.291 .264	.129 .108	.158* .174*	
	NPC EI	.060	.101	.043	065 .103	.076	061 .096	.090	.091	.070	.204 144	.108	.1/4* 094	
	EL	.319	.093	.213***	086	.071	.090 075	.013 187	.080	137*	144 .422	.102	094 .251***	
	BC	.169	.136	.097	000	.102	005	.221	.124	.137	.422	.145	.165*	
	PC	054	.150	026	.101	.102	.062	.174	.124	.091	.310	.143	.201**	
	$R^2$ (F)		078 (3.206		.101	19 (5.115			06 (4.500			23 (5.284)		
	$\Delta R^2 (\Delta F)$		)54 (4.457		.11 (.938)				43 (3.662		.082 (7.021)***			
Model 4	Constant	363	1.045		2.253	.885		.702	.902		1.939	1.039		
	Idealism	.130	.139	.048	.196	.115	.097	116	.117	049	.062	.137	.022	
	Relativism	077	.74	051	175	.062	149**	004	.063	003	.013	.071	.008	
	APC	133	.104	078	.064	.087	.049	.088	.088	.057	056	.101	030	
	NPC	014	.085	010	032	.071	030	.033	.073	.026	.250	.084	.165**	
	EI	.073	.080	.053	.036	.067	.033	.001	.069	.001	.076	.081	.050	
	EL	.321	.073	.214***	010	.062	009	004	.064	003	.282	.075	.168***	
	BC	032	.114	018	043	.095	032	051	.101	032	.109	.113	057	
	PC	118	.131	056	047	.114	029	.127	.114	.066	.052	.134	.023	
	SP	.781	.086	.486***	.500	.092	.332***	.799	.081	.560***	.861	.073	.604***	
	AH	.265	.081	.173**	.125	.065	.113	.155	.076	.115*	.100	.073	.069	
	$R^{2}(F)  \Delta R^{2}(\Delta F)$		56 (17.302 88 (67.998		.243 (9.637)*** .124 (24.545)***			.440 (23.627)*** .334 (89.611)***			.480 (27.670)*** .357 (102.943)***			
Model 5	Constant	473	1.049		2.235	.895		.739	.905		290	1.029		
	Idealism	.147	.139	.055	.197	.116	.098	125	.118	052	.106	.136	.037	
	Relativism	080	.074	053	175	.062	149**	002	.063	118	003	.071	002	
	APC	122	.104	071	.065	.087	.050	.081	.089	.052	015	.101	002	
	NPC	026	.085	019	033	.072	031	.039	.074	.030	.223	.084	.147**	
	EI	.066	.080	.047	.035	.068	.032	.004	.069	.332	.064	.080	.042	
	EL	.320	.073	.213***	010	.062	009	004	.064	003	.276	.074	.164***	
	BC	030	.114	017	043	.096	032	52	.101	033	108	.112	056	
	PC	095	.133	045	046	.114	028	.118	.115	.062	.108	.134	.047	
	SP	.778	.086	.484***	.504	.097	.334***	.796	.081	.558***	.868	.073	.609***	
	AH	.284	.083	.186**	.126	.065	.113	.156	.076	.115*	.093	.073	.065	
	SDRB (IM)	018	.016	058	002 .014008			.008 .014 .027			043 .015124**			
	$\mathbf{R}^{2}$ (F)	.369 (15.863)***			.243 (8.734)***			.440 (21.461)***			.493(26.420)***			
	$\Delta R^2 (\Delta F)$	.003 (1.299)			.000 (.020)				.000 (.32	9)	.0	13 (7.725	)**	

Table 4.6 Hierarchical Regression Results of Ethical Recognition

APC: Affective Professional Commitment; NPC: Normative Professional Commitment; EI: Egoistic/Individual; EL: Egoistic/Local, BC: Benevolent/ Cosmopolitan; PC Principled/Cosmopolitan; SP: Social Pressure; AH: Actual Harm; SDRB (IM): Social Desirability Response Bias (Impression Management) \* P < 0.05; \*\* P < 0.01; \*\*\* P < 0.001244

# 4.3.2.4.1.1 Personal Moral Philosophy and Ethical Recognition

Based on the literature review presented in chapter two (see section 2.4.1.7), it was hypothesised that moral idealism will have a positive relationship with ethical recognition, while moral relativism relationship with ethical recognition will be in the negative direction. The statistical results of the hierarchical linear multiple regression regarding the personal moral philosophy dimensions in relation to the external auditors' ethical recognition stage were presented in table 4.6 above. Regarding hypothesis *H9a1: Moral Idealism Has a Significant Positive Relationship with Ethical Recognition*, table 4.6 above (model 5) indicates no significant results were found in any of the four scenarios regarding moral idealism relationship with ethical recognition. Therefore, *H9a1* was fully rejected.

With respect to hypothesis *H9a2: Moral Relativism Has a Significant Negative Relationship with Ethical Recognition,* table 4.6 (model 5) above shows the values of the standardised regression coefficients  $\beta$  that indicated a significant negative relationship between moral relativism and external auditors' ethical recognition in only scenario B { $\beta$ = -.149, p <0.01}. Thus, very limited support was found regarding *H9a2*.

# 4.3.2.4.1.2 Professional Commitment and Ethical Recognition

Regarding the relationship between professional commitment and ethical recognition, prior research provided a theoretical and empirical support for a positive significant association between the two dimensions of professional commitment examined in this study (affective & normative) and ethical recognition (see section 2.4.1.8.1, chapter two). Thus, professional commitment dimensions examined in this study are hypothesised to positively influence ethical recognition of Egyptian external auditors. Table 4.6 above shows the results of multiple regression analysis regarding professional commitment impact on external auditors' ethical recognition.

Concerning H10a: Professional Commitment Has a Significant Positive Relationship with Ethical Recognition, the values of standardised regression coefficient  $\beta$  depicted in Table 4.6 (model 5) above shows a significant positive

relationship between normative professional commitment and external auditors' ethical recognition in only scenario D { $\beta$ = .147, p <0.01}. Thus, very limited support was found regarding *H10a*.

# 4.3.2.4.1.3 Ethical Climate Types and Ethical Recognition

In this study, the relationship between ethical climate types and ethical recognition was examined by testing three hypotheses. Based on the review of the business ethics literature presented in chapter two (see section 2.4.2.3), it was hypothesised that, while Egoistic climate types (Egoistic/local and Egoistic/ individual will have a negative relationship with ethical recognition, principled (principle/cosmopolitan) and benevolent (benevolent/cosmopolitan) climate types will have a positive relationship with external auditors' ethical recognition. Table 4.6 depicted the hierarchical linear multiple regression results of ethical climate types (Egoistic, benevolent, and principle climates) examined in this study in relation to external auditors' ethical recognition.

Regarding *H11a1: Egoistic Ethical Climates Has a Significant Negative Relationship with Ethical Recognition*, the values of the standardised regression coefficients  $\beta$  in Table 4.6 (model 5) indicates that Egoistic/local climate has a significant positive relationship with ethical recognition in scenario A { $\beta$ = .213, p<0.001} and scenario D { $\beta$ = .164, p<0.001}. Thus, *H11a1* was fully rejected.

With respect to hypothesis *H11a2: Benevolent Ethical Climates Has a Significant Positive Relationship with Ethical Recognition*, the values of the standardised regression coefficients  $\beta$  in Table 4.6 (model 5) indicates no significant relationship between benevolent/cosmopolitan climate and ethical recognition, thus *H11a2* was fully rejected.

Concerning *H11a3: Principled Ethical Climates Has a Significant Positive Relationship with Ethical Recognition,* Table 4.6 (model 5) shows no significant relationship between principle /cosmopolitan climate and ethical recognition in any of the scenarios, thus *H11a2* was also fully rejected.

# 4.3.2.4.1.4 Moral Intensity Dimensions and Ethical Recognition

On the grounds of the theoretical and empirical literature presented in chapter two, section 2.4.3, it is hypothesised that dimensions of moral intensity will have a positive significant relationship with external auditors' ethical recognition. Table 4.6 above presented the statistical results regarding the relationship between moral intensity dimensions and ethical recognition.

# H12a: Moral Intensity Has a Significant Positive Relationship with Ethical Recognition

As hypothesised, the standardised regression coefficients  $\beta$  values for moral intensity dimensions (see table 4.6, model 5) indicates that, in all four scenarios, moral intensity dimensions have a positive association with external auditors' ethical recognition. More specifically, social pressure dimension was found significantly and positively related to Egyptian external auditors' ethical recognition in the four scenarios {scenario A ( $\beta$ = .484, p<0.001), scenario B ( $\beta$ =.334, p<0.001), scenario C ( $\beta$ =.558, p<0.001), Scenario D ( $\beta$ =.609, p<0.001)}. However, in only two scenarios, the actual harm dimension was found positively and significantly related to external auditors' ethical recognition {scenario A ( $\beta$ = .186, p<0.01), and scenario C ( $\beta$ = .115, p<0.05)}, thus, it can be concluded that *H12a* was fully supported.

# 4.3.2.4.2 Ethical Judgment

Hierarchical linear multiple regression models for each of the four scenarios regarding the external auditors' ethical judgment stage is presented in Table 4.7 below. In the first model, personal moral philosophy dimensions, specifically idealism, accounts for 2.1% (scenario A) to 3.5% (scenario B) of the variation in external auditors' ethical judgment in three of the four scenarios. In these three scenarios, the model was statistically significant (p-values for scenario B and D <0.01, while p<0.05 in scenario A). Affective and normative dimensions of professional commitment were then added in the second model resulting in slight improvement to the model fit, the two variables together (model 2) accounts for 3.6 to 8.1% of the variation in ethical judgment, the model was also significant in the last three scenarios (p-values for scenario B and D <0.01, while p<0.001 in scenario C). Nevertheless, these improvements ( $\Delta \mathbf{R}^2$ ) were statistically significant in only scenario C (p<0.001). When ethical climate types were

included in the third model, these proportions enhanced to be ranging from 7.1% in scenario B to 12.5% in scenario C, and the models were also significant in three of the four scenarios (p<0.001 in scenario C, p<0.01 in scenario B and D). However,  $\Delta R^2$  were statistically significant (p<0.01) in only two scenarios (scenario C and D). In the fourth model, adding moral intensity dimensions to the model led to a statistical significant enhancement to the model for all scenarios, the four variables together explained 18.6 to 55.1% of the variation in external auditors' ethical judgment. These increases ( $\Delta R^2$ ) were statistically significant in all scenarios (p<0.001). Finally, in the fifth model, including SDRB to the model resulted in a very slight improvement ( $\Delta R^2$ =0.013) in only scenario D. This improvement ( $\Delta R^2$ ) was significant at 0.01 levels. As a test for robustness, regression models for ethical judgment for the four scenarios were reran including all the variables (categorical and continuous variables) and no significant changes have been found except for actual harm (AH) that became non-significant in only one scenario (i.e. scenario D).

Variable	e e Companies	Scenario A Scenario B						Scenario		Scenario D				
variable	es &Scenarios	В	St.E	β	В	St.E	β	B	St.E	β	B	St.E	ß	
Model 1	Constant	4.340	.792		4.326	.748		5.401	.810		2.149	.990		
	Idealism	.264	.122	.124*	.336	.115	.165**	.053	.124	.024	.499	.152	.187**	
	Relativism	071	.069	059	079	.067	066	69	.073	055	.036	.088	.023	
	<b>R<sup>2</sup> (F)</b>		.021 (3.36	6)*	).	)35 (5.60'	7)**		.004 (.62	5)	.034 (5.421)**			
Model 2	Constant	3.981	.860		3.870	.810		3.749	.848		2.495	1.076		
	Idealism	.234	.126	.110	.301	.119	.148*	038	.124	017	.513	.158	.194**	
	Relativism	062	.069	052	068	.068	058	047	.071	037	.023	.089	.021	
	APC	.082	.096	.060	.086	.093	.065	.203	.096	.144*	028	.121	016	
	NPC	.009	.075	.008	.030	.073	.028	.206	.076	.177**	055	.096	039	
	$R^2(F)$		.025 (1.98		-	042 (3.34	0)*		81 (6.774			36 (2.89		
	$\Delta R^2 (\Delta F)$		.004 (.61	3)		.007 (1.0	/1)	.07	7 (12.874	1)***		.002 (.38	4)	
Model 3	Constant	3.500	1.000		3.562	.951		3.688	.980		2.136	1.248		
	Idealism	.189	.134	.089	.306	.127	.151*	133	.131	062	.393	.166	.147*	
	Relativism	078	.070	065	069	.068	58	43	.070	034	.025	.088	.016	
	APC	.069	.099	.050	.109	.095	.083	.145	.098	.103	135	.124	078	
	NPC	.005	.082	.004	.076	.079	.071	.097	.082	.083	048	.103	034	
	EI	019	.077	017	.130	.074	.120	.006	.077	.005	179	.097	125	
	EL	.137	.071	.115	116	.068	100	158	.070	127*	.218	.092	.139*	
	BC	.082	.110	.060	155	.106	113	1.79	.111	.123	239	1.39	133	
	PC	010	.127	006	.136	.124	.083	.199	.127	.115	.420	.162	.197*	
	$R^{2}(F)$		.041 (1.60			)71 (2.88		.125 (5.398)***			.083 (3.435)**			
	$\Delta R^2 (\Delta F)$		.016 (1.22	21)	.029 (2.360)			.0	44 (3.777	/)**	.047 (3.870)**			
Model 4	Constant	1.802	.850		1.954	.927		1.217	.865		705	.905		
	Idealism	.032	.113	.015	.206	.120	.101	124	.112	057	.059	.119	.022	
	Relativism	055	.060	046	.008	.065	.007	005	.060	004	039	.062	025	
	APC	008	.084	006	.020	.091	.015	.128	.084	.090	.111	.088	.064	
	NPC	035	.069	031	.105	.075	.098	.049	.070	.042	055	.073	038	
	EI	864	.065	057	.066	.070	.061	002	.066	002	.065	.070	.046	
	EL	.158	.059	.133**	045	.065	038	018	.061	015	.067	.065	.043	
	BC	071	.093	052	188	.100	137	028	.087	019	014	.099	008	
	PC	046	.106	027	012	.119	008	.156	.109	.090	026	.117	012	
	SP	.493	.070	.386***	.513	.096	.337***	.655	.078	.507***	.887	.064	.665***	
	AH R <sup>2</sup> (F)	.378	.066	.310***	.094	.068	.084	.074	.073	.061	.166	.064	.123*	
	$A^{2}(F) = \Delta R^{2}(\Delta F)$	.3	36 (15.209 96 (66.820	9)*** ))***	.186 (6.883*** .115 (21.351)***			.372 (17.823)*** .247 (59.223)***			.551 (36.751)*** .467 (155.915)***			
Model 5	Constant	1.801	.855		2.041	.937		1.181	.868		847	.894		
WIGHEI 3				015			008			052			072	
	Idealism Relativism	.032 055	.114 .060	.015 046	.199 .008	.121 .065	.098 .007	115 007	.113 .060	053 005	.100 054	.118 .061	.073 035	
	APC	005	.085	040	.008	.005	.007	.135	.000	.095	.150	.001	.087	
	NPC	035	.035	031	.109	.075	.101	.043	.085	.037	080	.033	056	
	EI	064	.065	057	.072	.071	.066	005	.066	004	.054	.069	.038	
	EL	.158	.059	.133**	046	.065	039	018	.062	015	.061	.064	.039	
	BC	071	.093	052	188	.100	137	027	.087	019	013	.097	007	
	PC	045	.108	027	018	.120	011	.164	.110	.094	.026	.117	.012	
	SP	.493	.070	.386***	.493	.101	.323***	.658	.078	.509***	.893	.063	.669***	
	AH	.378	.068	.311***	.093	.068	.083	.073	.073	.060	.160	.063	.118*	
	SDRB (IM)	.000	.013	001	.010	.015	.039	008	.013	029	040	.013	124**	
	$R^2$ (F)	.336 (13.780)***			.187 (6.285)***			.37	3 (16.19)	7)***	.564 (35.108)***			
	$\Delta R^2 (\Delta F)$		.000 (.00			.001 (.42			.001 (.33			13 (8.946		
	()				.001 (.727)					,				

APC: Affective Professional Commitment; NPC: Normative Professional Commitment; EI: Egoistic/Individual; EL: Egoistic/Local, BC: Benevolent/ Cosmopolitan; PC Principled/Cosmopolitan; SP: Social Pressure; AH: Actual Harm; SDRB (IM): Social Desirability Response Bias (Impression Management) \* P<0.05; \*\* P<0.01; \*\*\* P<0.001

# 4.3.2.4.2.1 Personal Moral Philosophy and Ethical Judgment

Similar to ethical recognition, based on the literature review presented in chapter two, section 2.4.1.7), the relationship between personal moral philosophy and ethical judgment of external auditors were formulated in two Hypotheses. In this study, moral idealism is hypothesised to have a significant positive relationship with ethical judgment, whereas, moral relativism will have a significant negative relationship with ethical judgment. Table 4.7 presented the statistical results of multiple regression analysis of personal moral philosophy in relation to external auditors' ethical judgment.

Regarding *H9b1: Moral Idealism Has a Significant Positive Relationship with Ethical Judgment*, Table 4.7, model 5, shows no significant results, in any of the four scenarios, regarding moral idealism relationship with ethical judgment. Therefore, *H9b1* was fully rejected. Additionally, concerning *H9b2: Moral Relativism Has a Significant Negative Relationship with Ethical Judgment*, Table 4.7, model 5, indicates no significant results, in any of the four scenarios, regarding moral relativism relationship with external auditors' ethical judgment. Therefore, *H9b2* was also fully rejected. Based on these results, it can be concluded that neither moral idealism nor moral relativism has a significant relationship with external auditors' ethical judgment.

# 4.3.2.4.2.2 Professional Commitment and Ethical Judgment

Limited empirical business ethics studies reviewed in this study (see chapter two, subsection 2.4.1.8.1) concerning the professional commitment dimensions in relation to ethical judgment showed a significant positive relationship between the two exists. Thus, in this study, the two dimensions of professional commitment (Affective & Normative) are hypothesised to have a significant positive relationship with external auditors' ethical judgment. Table 4.7 above shows the results of multiple regressions of professional commitment dimensions (affective and normative).

Regarding *H10b: Professional Commitment Has a Significant Positive Relationship* with Ethical Judgment, contrary to expectations, Table 4.7 indicates no significant

results regarding the effect of affective and normative dimensions of professional commitment in relation to external auditors' ethical judgment in any of the four scenarios.

# 4.3.2.4.2.3 Ethical Climate Types and Ethical Judgment

The literature review presented in chapter two (see section 2.4.2.3) concludes that, while egoistic climate types have significant negative relationship with ethical judgment, benevolent and principled climate types have a positive relationship with ethical judgment. Therefore, three hypotheses were formulated regarding the relationship between ethical climate types and external auditors' ethical judgment. Egoistic individual and Egoistic local climate types, examined in this study, are hypothesised to have a negative relationship with ethical judgment, while benevolent/cosmopolitan and principled/cosmopolitan climates were hypothesised to have a positive relationship with ethical judgment. Table 4.7 presented the statistical results of ethical climate types, examined in this study, in relation to external auditors' ethical judgment.

Regarding H11b1: Egoistic Ethical Climates Has a Significant Negative Relationship with Ethical Judgment, Table 4.7 above showed the values of the standardised regression coefficients  $\beta$  that indicated a significant positive relationship between Egoistic local climate and external auditors' ethical judgment in only scenario A { $\beta$ = .133, p <0.01}. Thus, H11b1 was rejected. Concerning, H11b2: Benevolent Ethical Climates has a Significant Positive relationship with Ethical Judgment, Table 4.7 above indicates no significant results, in any of the four scenarios, regarding benevolent/cosmopolitan climate relationship with external auditors' ethical judgment. Therefore, H11b2 was also fully rejected. With respect to H11b3: Principled Ethical Climates Has a Significant Positive Relationship with Ethical Judgment, Table 4.7 indicates no significant results, in any of the four scenarios, regarding principled/cosmopolitan climate relationship with external auditors' ethical judgment. Therefore, H11b3 was also fully rejected. To sum up, based on the above results, it can be concluded that, ethical climate types, examined in this study, had a very limited significant relationship with external auditors' ethical judgment. Contrary to what was hypothesised, egoistic/local climate had a partial positive (not negative) relationship with external auditors' ethical judgment. Discussion related to this finding will be provided later in the next chapter.

# 4.3.2.4.2.4 Moral Intensity Dimensions and Ethical Judgment

Consistent with findings related to ethical recognition, moral intensity dimensions have been consistently reported in prior empirical business ethics research as positively related to ethical judgment (see chapter two, section 2.4.3). Consequently, moral intensity dimensions are hypothesised, in this study, to have a significant positive relationship with external auditors' ethical judgment. Regarding H12b: Moral Intensity Has a Significant Positive Relationship with Ethical Judgment, as hypothesised, the standardised regression coefficients  $\beta$  values for moral intensity dimensions (see Table 4.7, model 5) shows that, in all four scenarios, moral intensity dimensions have a positive and statistically significant association with external auditors' ethical judgment. More specifically, social pressure dimension was found significantly and positively related to external auditors' ethical judgment in the four scenarios {scenario A ( $\beta$ = .386, p<0.001), scenario B ( $\beta$ =.323, p<0.001), scenario C  $(\beta=.509, p<0.001)$ , Scenario D  $(\beta=.669, p<0.001)$ }. Additionally, in only two scenarios, the actual harm dimension was found positively and significantly related to external auditors' ethical judgment {scenario A ( $\beta$ = .311, p<0.001), and scenario D  $(\beta = .118, p < 0.05)$ . Therefore, based on these results, *H12b* was fully accepted.

## 4.3.2.4.3 Ethical Intention

Table 4.8 below shows the five models of hierarchical linear multiple regression results of the ethical intention stage. Results presented in the first model indicate that personal moral philosophy explained 2 to 16 % of the variation in ethical intention, and the model was statistically significant in the four scenarios (p<0.001 for all scenarios except scenario C where p<0.05). Adding professional commitment dimensions in the second model enhanced significantly these proportions to be ranging from approximately 8% in scenario C to approximately 22% in scenario B, and the model (model 2) was also statistically significant in all scenarios (p<0.001).

These enhancements ( $\Delta \mathbf{R}^2$ ) were statistically significant in the first three scenarios (p<0.001 for scenario B and C while P<0.05 for scenario A). In the third model, including the four ethical climate types, examined in this study, to the regression model led to a statistically significant improvement in the model fit. The three variables together (Model 3) explained 14.5 to 27.7 % of the variation in external auditors' ethical intention, and the model was also statistically significant in all scenarios (p<0.001 in all scenarios). These improvements ( $\Delta \mathbf{R}^2$ ) were also statistically significant in all scenarios (p-values of scenario B and C <0.001), p-value of scenario D <0.01, and p-value for scenario A <0.05). In the fourth model, adding moral intensity dimensions has largely improved the regression model and enhanced the prediction of external auditors' ethical intention. The proportions were again improved to become ranging from 30.6% in scenario A to 47.8% in scenario C. Model 4 was statistically significant in all scenarios (p<0.001), and these improvements in the model fit ( $\Delta \mathbf{R}^2$ ) was also statistically significant in all the four scenarios (p<0.001). Finally, in the fifth model, SDRB was added, and the model remains statistically significant for all scenarios (p<0.001), while no statistical significant improvement to the model was shown in any of the scenarios. As a test for robustness, regression models for ethical intention for the four scenarios were reran including all the variables (categorical and continuous variables), and no significant changes were found except for affective professional commitment (APC) became significant (p<0.01) in only one scenario (i.e. scenario D), while Idealism and principle/cosmopolitan (PC) (scenario B) became non-significant, as well as Egoistic/local (EL) (scenario D) became non-significant.

Variable	es &Scenarios	_	Scenario			Scenario	o B		Scenario		5	Scenario	D
variable	es a scenarios	В	St.E	β	В	St.E	β	В	St.E	β	B	St.E	β
Model 1	Constant	5.578	.775	P	4.008	.654	r	5.320	.865		4.755	.830	
	Idealism	.167	.119	.078	.509	.100	.268***	.102	.133	.044	.307	.127	.132*
	Relativism	323	.067	266***	281	.057	260***	172	.078	126*	377	.074	279***
	$\mathbf{R}^{2}$ (F)	.08	84 (14.00)	2)***	.16	51 (29.64	9)***	.(	020 (3.06	(9)*	.10	7 (18.38	1)***
Model 2	Constant	4.634	.832		2.821	.684		3.740	.915		5.175	.898	
	Idealism	.102	.122	.047	.403	.100	.212***	.009	.134	.004	.297	.132	.128*
	Relativism	304	.067	251***	249	.056	230***	148	.076	109	375	.074	277***
	APC	.165	.092	.120	.209	.076	.242***	.219	.104	.144*	.051	.101	.034
	NPC	.071	.073	.063	.013	.060	.013	.170	.086	.136*	141	.080	114
	$R^2$ (F)		09 (9.303		.21	19 (21.45	8)***	.0′	78 (6.446	)***		(10.098	
	$\Delta \mathbf{R}^2 (\Delta \mathbf{F})$		025 (4.30	)2)*	.03	58 (11.28	6)***	.0:	58 (9.650	))***		010 (1.72	28)
Model 3	Constant	4.879	.956		3.075	.778		5.378	.989		4.834	1.034	
WIGUEI 3	Idealism	.051	.128	.024	.340	.104	.179**	066	.132	028	.198	.138	.085
	Relativism	297	.067	245***	236	.055	218***	113	.071	083	381	.073	282***
	APC	.122	.095	.089	.230	.076	.192**	.076	.099	.050	040	.102	027
	NPC	032	.079	029	042	.063	043	073	.083	058	110	.086	089
	EI	006	.074	005	024	.059	.025	288	.078	230***	161	.081	130*
	EL	165	.068	137*	178	.055	168**	235	.071	176**	.218	.076	.159**
	BC	.177	.105	.127	102	.085	082	.284	.112	.182*	.288	.115	.184*
	РС	.096	.122	.057	.340	.100	.227**	.184	.129	.098	.395	.134	.212**
	$\mathbf{R}^{2}(\mathbf{F})$		45 (6.381			77 (14.43		.23	3 (11.49)	3)***		73 (7.883	
	$\Delta R^2 (\Delta F)$		036 (3.19	)2)*	.0	58 (6.006	5)***	.15	6 (15.33	3)***	.0.	56 (5.124	4)**
Model 4	Constant	3.729	.880		1.435	.718		2.694	.849		3.533	.969	
	Idealism	072	.117	034	.228	.094	.120*	078	.110	034	.028	.127	.012
	Relativism	297	.062	245***	152	.050	141**	058	.059	043	414	.067	306***
	APC	.089	.087	.065	.129	.069	.108	.035	.083	.023	.085	.095	.056
	NPC	080	.072	071	006	.057	006	112	.069	090	119	.078	096
	EI	030	068	027	093	.054	095	303	.065	241***	047	.075	038
	EL	153	.062	128*	098	.050	093*	077	.060	058	.145	.070	.105*
	BC	.065	.096	.046	141	.076	113	.047	.095	.030	180	.106	115
	РС	.061	.110	.036	.192	.091	.128*	.158	.107	.084	.182	.125	.098
	SP	.432	.073	.334***	.487	.074	.352***	.582	.077	.418***	.460	.069	.395***
	AH	.210	.068	.171**	.150	.052	.147**	.237	.072	.179**	.043	.069	.037
	$R^{2}(F) \Delta R^{2}(\Delta F)$		.306 (13.165)*** .161 (34.601)***		.428 (22.476)*** 1.152 (39.807)***		.478 (27.484)*** .245 (70.335)***		.322 (14.234)*** .149 (32.962)***				
Model 5	Constant	3.578	.881		1.508	.725		2.725	.853		3.519	.972	
Mouel 5	Idealism	048	.117	023	.222	.094	.117*	086	.111	037	.032	.128	.014
	Relativism	301	.062	248***	.222 152	.094	141**	080	.059	037	.032 415	.128	307***
	APC	.102	.807	.074	.125	.050	.104	.029	.037	.019	.088	.007	.059
	NPC	093	.072	083	002	.057	002	107	.070	086	121	.079	098
	EI	038	.068	034	088	.054	089	300	.065	239***	048	.076	038
	EL	156	.061	130*	099	.050	084*	077	.060	058	.144	.070	.105*
	BC	.066	.096	.047	141	.076	133	.046	.095	.030	180	.106	115
	РС	.092	.111	.055	.187	.091	.125*	.150	.108	.080	.187	.127	.100
	SP	.426	.073	.329***	.468	.078	.339***	.580	.077	.416***	.460	.069	.396***
	AH	.234	.070	.191**	.148	.052	.145**	.238	.073	.180**	.043	.069	.036
	SDRB (IM)	023	.014	090	.009	.011	.039	.007	.013	.023	004	.015	114
	<b>R</b> <sup>2</sup> ( <b>F</b> )	.312 (12.304)***		.429 (20.462)***		.479 (24.948)***		.322 (12.906)***					
	$\Delta R^2 (\Delta F)$		.007 (2.8			.001 (.60	)9)		.000 (.26	54)		.000 (.07	
ADC: AG	faction Durfersion			, ,			,			dual EL E			· /

APC: Affective Professional Commitment; NPC: Normative Professional Commitment; EI: Egoistic/Individual; EL: Egoistic/Local, BC: Benevolent/ Cosmopolitan; PC Principled/Cosmopolitan; SP: Social Pressure; AH: Actual Harm; SDRB (IM): Social Desirability Response Bias (Impression Management) \* P<0.05; \*\* P<0.01; \*\*\* P<0.001 254

#### 4.3.2.4.3.1 Personal Moral Philosophy and Ethical Intention

Similar to ethical recognition and judgment stages, based on theoretical and empirical business ethics literature (see chapter two, section 2.4.1.7), personal moral philosophy dimensions examined in this study was hypothesised to have a significant relationship with ethical intention, that while moral idealism will have a significant positive relationship with ethical intention, moral relativism will be significantly and negatively related to ethical intention. Table 4.8 above provided the results regarding the relationship between personal moral philosophy and external auditors' ethical intention.

Regarding *H9c1: Moral Idealism Has a Significant Positive Relationship with Ethical Intention,* the  $\beta$  values for moral idealism (see Table 4.8, model 5) indicates that moral idealism had only one significant positive relationship with ethical intention {scenario B ( $\beta$ = .117, p<0.05)}, these results show very limited support for *H9c1*. On the other hand, Concerning *H9c2: Moral Relativism Has a Significant Negative Relationship with Ethical Intention*,  $\beta$  values for moral relativism presented in Table 4.8 (model 5) showed a significant negative relationship between moral relativism and ethical intention in three scenarios, scenario A ( $\beta$ = -.248, p<0.001), scenario B ( $\beta$ = -.141, p<0.01), and scenario D ( $\beta$ = -.307, p<0.001). These results fully support *H9c2*.

#### 4.3.2.4.3.2 Professional Commitment and Ethical Intention

Similar to ethical recognition and judgment stages, prior empirical studies (see chapter two, subsection 2.4.1.8.1) reveals that a significant positive relationship between affective and normative dimensions of professional commitment and ethical intention. Thus, it was hypothesised that affective and normative dimensions of professional commitment, and external auditors' ethical intention are significantly and positively related. Table 4.8 above shows the results of multiple regression analysis for professional commitment dimensions, examined in this study, in relation to auditors' ethical intention. Regarding *H10c: Professional commitment Has a Significant Positive Relationship with Ethical Intention*, Table 4.8 (model 5) indicates no significant results in any of the four scenarios regarding professional

commitment dimensions relationship with external auditors' ethical intention. Therefore, *H10c* was fully rejected.

#### 4.3.2.4.3.3 Ethical Climate Types and Ethical Intention

Ethical climate types and external auditors' ethical intention relationship was examined in this study through testing three hypotheses. Empirical business ethics literature reviewed in this study (see chapter two, section 2.4.2.3) showed that while Egoistic climate types (Egoistic/local and Egoistic/ individual) will have a significant negative relationship with ethical intention, principled (principle/cosmopolitan) and benevolent (benevolent/cosmopolitan) climate types will have a significant positive relationship with ethical intention. Table 4.8 depicted the hierarchical linear multiple regression results of the four ethical climate types (Egoistic/individual, Egoistic/local, benevolent cosmopolitan, and principled cosmopolitan) examined in this study in relation to external auditors' ethical intention.

Regarding *H11c1: Egoistic Ethical Climates Has a Significant Negative Relationship with Ethical Intention*, the  $\beta$  values depicted in Table 4.8 (model 5) indicate that while Egoistic/Local climate has a significant negative relationship with ethical recognition in scenario A{ $\beta$ =-.130, p<0.05} and scenario B{ $\beta$ =-.084, p<0.05}. Egoistic/ Individual climate has a significant negative relationship with ethical intention in scenario C{ $\beta$ =-.239, p<0.001}. However, inconsistently, Egoistic/Local climate has a positive relationship with ethical intention in only scenario D{ $\beta$ =.105, p<0.05}. Based on these results, it can be concluded that *H11c1* was partially accepted.

With respect to hypothesis H11c2: Benevolent Ethical Climates Has a Significant Positive Relationship with Ethical Intention, Table 4.8 (model 5) indicates no statistical significant positive relationship between Benevolent/Cosmopolitan climate and external auditors' ethical intention. Thus, H11c2 was fully rejected. However, Concerning H11c3: Principled Ethical Climates Has a Significant Positive Relationship with Ethical Intention, the  $\beta$  values depicted in Table 4.8 (model 5), indicate that Principled/Cosmopolitan climate, examined in this study, has a significant positive relationship with external auditors' ethical intention in scenario B

#### $\{\beta=.125, p<0.05\}$ . Therefore, there was very limited support for *H11c3*.

#### 4.3.2.4.3.4 Moral Intensity Dimensions and Ethical Intention

Similar to ethical recognition and ethical judgment stages, prior empirical business ethics research has consistently portrayed moral intensity dimensions as having a statistical significant positive relationship with the ethical intention stage (see chapter two, section 2.4.3). Accordingly, moral intensity dimensions are hypothesised, in this study, to have a significant positive relationship with ethical intention. Table 4.8 shows that statistical results of the multiple regression analysis concerning moral intensity dimensions relationship with external auditors' ethical intention for the four scenarios employed in this study.

Regarding *H12c: Moral Intensity Has a Significant Positive Relationship with Ethical Intention*, as hypothesised, the  $\beta$  values for moral intensity dimensions (see Table 4.8, model 5) indicate a positive significant relationship between moral intensity dimensions and ethical intention in all scenarios. While social pressure dimension has a significant positive relationship with ethical intention in all scenarios {scenario A ( $\beta$ =.329, p<0.001), scenario B ( $\beta$ =.339, p<0.001), scenario C ( $\beta$ =.416, p<0.001), and scenario D ( $\beta$ =.396, p<0.001)}, actual harm showed significant positive relationship with ethical intention A ( $\beta$ =.191, p<0.01), scenario B ( $\beta$ =.145, p<0.01), and scenario C ( $\beta$ =.180, p<0.01)}. Consequently, *H12c* was fully supported.

#### 4.3.2.4.4 Social Desirability Response Bias Effects

As mentioned earlier, To control for the effects of SDRB, which is likely to be present in studies of EDM (Campbell & Cowton, 2015), the impression management scale items were included in the questionnaire (see chapter three, section 3.8.1). They were employed to determine whether the respondents have provided socially desirable answers to "*manage*" impressions instead of providing honest answers to the scenarios concerning their EDM process. In this study, Social desirability response bias effects were examined through testing the association of IM with EDM stages of external auditors. The first question in Section E in the questionnaire (see Appendix A) was designed for the impression management scale. Consistent with the original version, regarding the 20 statements of the IMS, respondents were asked to indicate how much they agree with each statement on a seven-points scale anchored on {(1) "not true", "neither true nor false", and "very true"}. Ten of those twenty items were reverse scored. After reverse scoring the negative worded items (10 items), responses of six or seven to an item portray an extremely honest person, and are expected to measure the tendency to overstate the truth or "manage" impressions. A single score for each respondent was calculated as the total number of such responses (Paulhus, 1991). This is consistent with prior accounting ethics research that has adopted the IMS to test for SDRB (e.g., Shafer, 2009; Shafer & Simmons, 2011a).

Consistent with prior research (e.g., Shafer, 2008, 2009), respondents' IM scores were added in the final regression model (model 5) of the four scenarios for each of the EDM stages examined, to see whether proportions explained the EDM stages were improved significantly. In this regard, Steenkamp, Martijn G. De, and Baumgartner (2010) proposed that a standardised regression coefficients  $\beta$  values exceeding .2 indicates a non-negligible relationship between SDRB and variables of interest.

In this study, regarding ethical recognition stage, table 4.6 indicates that adding the IM in the fifth model resulted in a very slight improvement to the model in only two scenarios, scenario A ( $\Delta R^2=0.003$ ) and scenario D ( $\Delta R^2=0.013$ ). Nevertheless, these minor changes ( $\Delta R^2$ ) were statistically significant in only scenario D (p<0.01). Table 4.6 also presented the  $\beta$  values for IM (model 5) that indicate a significant negative relationship between IM and respondents' ethical recognition in scenario D ( $\beta$ =-.124, p<0.01).

Concerning ethical judgment, table 4.7 indicates that including IM to the model resulted in a very slight improvement ( $\Delta \mathbf{R}^2$ =0.013) in only scenario D. This improvement ( $\Delta \mathbf{R}^2$ ) was significant at 0.01 levels. Table 4.7 also presented the  $\beta$  values for IM (model 5) that indicate a significant negative relationship between IM and respondents' ethical judgment, again, in scenario D ( $\beta$ =-.124, p<0.01).

However, regarding ethical intention stage, table 4.8 shows that when IM was added, although the regression model remains statistically significant for all scenarios (p<0.001), no statistical significant improvement to the regression model was shown in any of the scenarios.

Based on these results, although more than 50% (57.7%) of respondents provided socially desirable answers (responded 6 or 7) in 10 or more items of the IM scale, only two significant findings were found regarding SDRB association with EDM stages (ethical recognition and ethical judgment) which indicates possible evidence of contamination with SDRB. However, neither of these two significant findings has exceeded the threshold of .2. Therefore, it can be concluded that if there is a possible effect of SDRB, it was negligible and therefore, no significant threat to the validity of the findings was present.

Dependent variables	Standardised coefficient β values	Significance				
Ethical Recognition	-					
Scenario A	058	Non-significant				
Scenario B	008	Non-significant				
Scenario C	.027	Non-significant				
Scenario D	124	Significant at p<0.01				
Ethical Judgment						
Scenario A	001	Non-significant				
Scenario B	.039	Non-significant				
Scenario C	029	Non-significant				
Scenario D	124	Significant at p< 0.01				
Ethical Intention						
Scenario A	090	Non-significant				
Scenario B	.039	Non-significant				
Scenario C	.023	Non-significant				
Scenario D	114	Non-significant				

**Table 4.9 Regression Results of SDRB** 

# 4.4 Major Findings Based on the Hypotheses of the Study

As mentioned earlier, twelve hypotheses were formulated to examine the impact of a broad set of personal, organisational, moral intensity variables on external auditors' EDM stages (see chapter two, Table 2.2). While several hypotheses were partially supported (results were significant in two scenarios), several others were fully accepted (results were significant in three or four scenarios), and others were fully rejected. Significant result in only one scenario indicates limited support for the

hypothesis. The results of the hypotheses tested in this study are summarised in Table 4.10 below.

Variables & EDM stages	Ethical	Ethical	Ethical				
Variables & EDM stages	Recognition	Judgment	Intention				
Personal Variables:							
Gender (Males more ethical than	PS	PS	FS				
females)	13	12	гэ				
Age	LS	FR	PS				
Position level	LS	PS	PS				
Educational Level	FR	FR	FR				
Certification Status	PS	LS	PS				
Work Experience	PS	PS	PS				
Idealism	FR	FR	LS				
Relativism	LS	FR	FS				
Professional Commitment	LS	FR	FR				
Organisational variables:							
Organisational Size	PS	PS	FR				
Code of Ethics	FR	PS	LS				
Egoistic climate types	FR	FR	FS				
Benevolent Climate	FR	FR	FR				
Principled Climate	FR	FR	LS				
Moral Intensity Dimensions							
Social Pressure	FS	FS	FS				
Actual Harm	PS	PS	FS				

 Table 4.10 Summary of Hypotheses Testing Results

FS: Fully supported; PS: Partially supported; LS: limited support; FR: Fully rejected

Stages and	Scenario	Scenario	Scenario	Scenario	
Scenarios	А	В	С	D	
Recognition	5	7	3	5	
Judgment	7	2	5	4	
Intention	8	11	5	4	
Total	20	20	13	13	

Table 4.11 Summary of Significant Results by Scenarios

Table 4.11 above indicates that scenarios A and B showed 20 findings each while scenarios C and D showed 13 significant findings. Differences in significant results found among scenarios reinforce the need to consider more than one or two scenarios in future EDM research.

#### 4.5 Summary

This chapter presents the results of the statistical analysis conducted, the influence of eight personal variables (e.g., gender, professional commitment), three organisational variables (e.g., firm size), and moral intensity dimensions (e.g., magnitude of consequences) on external auditors' EDM stages has been tested. Categorical personal and organisational variables were tested using T-test, one-way between groups analyses of variance (ANOVA). Hierarchical multiple regression analyses were adopted to test for the impact of continuous variables. Factor analysis of moral intensity dimensions revealed that the six-dimensional conceptualisation of moral intensity is not supported in the Egyptian external audit context and it could be reconceptualised into two dimensions, perceived social pressure and perceived actual harm. Future research could operationalise two dimensions (social pressure, and actual harm) rather than the six dimensions to capture the moral intensity construct. Analysis revealed that moral intensity dimensions are the most significant predictors of EDM stages of external auditors, particularly, perceived social pressure in all scenarios. Some significant results were found for gender, certification status, and personal moral philosophy, particularly, moral relativism. Few significant results were found for educational level, position level, idealism, code of ethics, and ethical climate. These results are discussed in details in the next chapter.

# Chapter Five Discussion

#### 5.1 Introduction

The purpose of this study was to identify the factors underlying external auditors' EDM process in a developing country, namely Egypt. This study has examined eight personal variables (gender, age, educational level, auditor's position level, certification status, work experience, personal moral philosophy, and professional commitment), three organisational variables (firm size, code of ethics, ethical climate), and all dimensions of moral intensity in relation to Egyptian external auditors' EDM stages. The results regarding the statistical analysis of the research data were presented in the preceding chapter. Thus, this chapter is to identify and discuss key findings. Relating the findings of this study to the relevant literature and interpreting the results are principal aims of this chapter.

This chapter is organised in five sections. Following the introduction, section two discusses the association of the eight personal variables examined and external auditors' EDM stages. The three tested organisational variables in relation to EDM stages are discussed in the third section, moral intensity dimensions' influence on EDM stages is discussed in section four, and the chapter is then summarised in the last section.

# 5.2 Personal Variables and External Auditors' EDM Stages

The literature of business ethics indicates that an ethical decision may be contingent to the individual encountering the ethical issue; different individuals may act in different ways regarding the same ethical dilemma (Schwartz, 2016). It is one of the principal aims of this study to determine the influence of personal variables on external auditors' EDM stages. To achieve this, an extensive review of the relevant theoretical and empirical literature has been carried out (see chapter Two). A wide range of personal variables (eight variables) has been hypothesised and examined in relation to EDM stages of Egyptian external auditors and some variation in external auditors' EDM stages as based on some of these variables was significantly found. Of the demographic variables examined in this study are age and educational level and both revealed limited significant association with EDM stages (i.e. in three out 12 cases), there were significant differences based on age regarding ethical recognition in only one scenario (i.e. scenario B) and ethical intention in only two scenarios (i.e. scenario B, and C) - though no significant differences were found regarding ethical judgment. Where differences are found, older external auditors showed higher EDM scores than their younger counterparts. Also educational level showed very limited and inconsistent (negative) significant result (i.e. in 1 out of 12 cases), it was found that, in only one scenario (i.e. scenario A), ethical recognition mean scores of auditors who holds a Master degree were significantly less than the other two groups of auditors who holds a bachelor degree and postgraduate diploma.

These limited significant results regarding age are consistent with several prior studies that indicated no or few significant relationships exist between age and EDM (e.g., Kuntz et al., 2013; Marques & Azevedo-Pereira, 2009; Musbah et al., 2016; Pierce & Sweeney, 2010). Age is considered one of the most mixed of all personal variables investigated in relation to EDM stages (Lehnert et al., 2015). More than half of the studies reviewed in the current study (see chapter two) showed no or few significant relationships. Also results regarding educational level appear consistent with some of the previous studies that reported few or no significant results too (e.g., Cohen et al., 2001; Marques & Azevedo-Pereira, 2009; Musbah et al., 2016).

These findings provide limited support to propositions laid by Kohlberg's theory of cognitive moral development that age and educational level are positively related to individuals' ethical choices. It is generally argued by Rest (1986) that age and education are influential and necessary for developing moral reasoning; however, individuals might not progress through stages of moral development with similar pacing and pattern. Rest (1986) also argued that proper social development that an individual gain through formal education and training affect positively an individual's moral development. Thus, it could be argued that education and training could explain in part moral development of individuals. The limited results found for age in this study may indicate that auditors, as they aged, do not exhibit more ethical choices.

One reason behind this could be the inadequate social development that auditors receive through professional socialisation in Egyptian audit firms. It is argued that the exposure to some of the deceitful, disloyal, and disrespectful practices that may occur in the accountancy professional environment may hinder auditors' ability to develop to higher stages of moral development, as they grow older (Marques & Azevedo-Pereira, 2009). This argument may be consistent with the findings reported that suggests that CPAs in public practice are less morally developed than CPAs working in governmental and non-profit organisations (Abdolmohammadi & Ariail, 2009).

The quality of formal education that auditors receive may be also one reason behind these limited results of age and educational level. It is argued that the quality of business education may be one reason behind the under-development of auditors' moral reasoning (Ponemon & Glazer, 1990). Findings indicate that business education affects negatively EDM abilities of trainee accountants (Pierce & Sweeney, 2010). In Egypt, as in many developing countries, the business education in general and accounting education specifically suffers from a lot of challenges and problems, including the lack of modern syllabus with scant emphasis on encouraging students' critical thoughts and expertise (Holmes, 2008; Wahdan, Spronck, Ali, Vaassen, & Herik, 2005; World Bank, 2002). It could be argued that such problems may discourage student-thinking abilities, which may limit their abilities to recognise and judge practical issues including ethical issues.

Furthermore, scant attention has been given to incorporate the ethical dimensions of business and auditing practices in the curriculum of undergraduate programs in Egyptian business schools. Integrating ethics into accounting education may assist students to better assess the ethical implications of the issues they may encounter in practice. In practice, according to the accounting practice law in Egypt, undertaking professional training and/or continuing professional education is not one of the mandatory requirements for practicing the accounting profession (World Bank, 2002). Researchers have argued that professional continuing education programs is essential to familiarise auditors with the ethical requirement, and values of the profession and thus enhancing their EDM capabilities (Hall et al., 2005). Furthermore, in Egypt, the

best students rarely join the auditing profession because of the relatively low compensation benefits. Knowledge deficiencies of Egyptian auditors have been also documented earlier in the literature (Samaha & Hegazy, 2010). Another possible reason for these limited results might be the use of cross-sectional methodology (i.e. methodological issue) rather than longitudinal design that could provide more meaningful conclusions regarding the impact of age and educational level on auditors' EDM stages.

Although age and educational level appeared to be non-significantly related to EDM stages, certification status revealed some significant and interesting positive results. Auditors who hold professional certification are more sensitive to recognise ethical issues than their uncertified counterparts in two scenarios (i.e. scenarios B and C). Significant and positive association of certification status with ethical judgment was found in only one scenario (i.e. scenario C) and with ethical intention in two other scenarios (i.e. scenario A and B). Studies conducted in the accounting context have shown similar results (e.g., Shafer & Wang, 2011). These findings could be linked to the effectiveness of training and socialisation processes associated with international and local certification programs of external auditors. These training programs emphasise the professional moral values as well as the ethical duties and responsibilities of auditors and thus may enhance their EDM abilities.

Also there were some significant differences in EDM stages based on the length of work experience. Length of work experience had significant and positive relationship with ethical, judgment, and intention, each in two scenarios, and with ethical recognition in one scenario. These results are consistent with several prior studies (e.g., Bateman & Valentine, 2010; Pflugrath et al., 2007; Sweeney et al., 2010; Valentine & Rittenburg, 2007). Work experience was negatively related to ethical recognition in only one scenario (i.e. scenario D: Confidentiality). Sweeney et al. (2010) have adopted similar scenarios that entail audit- quality threatening behaviours and, in only one of those scenarios, they found that length of experience is positively associated with auditors' unethical intention to over-rely on client work. It could be argued that effects of work experience may be dependent on the characteristics of the

ethical issue under question. It is argued that work experience is likely to be related to an individual's ability to perceive ethical issue characteristics (Jones, 1991). Future research could examine these arguments, so that firm conclusions could be drawn.

Mirroring the significant results found for work experience, position level was also found to be significantly and positively associated with ethical recognition in only one scenario (i.e. scenario B), while it was significantly and positively related to ethical judgment and intention in two scenarios (i.e. scenarios A and D). These significant results are consistent with several prior studies that found auditors at higher position levels possess more ethical stances than auditors at lower position levels (e.g., Shafer et al., 2016; Shapeero et al., 2003).

Merton (1968) theory of social structure provides an explanation for these findings, it is argued that individuals at higher position levels receive a relatively higher compensation than their counterparts at lower positions and thus, they are less likely to engage in unethical behaviours. These arguments may hold true within the Egyptian context. A significant compensation gap exists between auditors at lower positions and their counterparts at higher ones. Another possible explanation for these results is that Egyptian audit firms may be implementing effective promotion policies to ensure that those reach higher position possessing higher level of EDM capabilities. Also the positive association of certification status with auditors' EDM stages found in this study may provide another possible explanation. In Egyptian audit firms, auditors are likely to progress up to higher position levels based on certification status. In this study, the majority of auditors at the position of managers or higher are certified (i.e. 97 %). Thus, it could be argued that significant results based on position level.

With respect to the differences in EDM stages as based on gender, the literature review presented in chapter two (see section 2.4.1.2) suggests that when significant differences are found between males and females, females tend to be more ethically sensitive, exhibits more ethical judgments, and shows less intention to behave unethically than their male counterparts. However, in this study, these propositions

were not supported. In two scenarios (i.e. scenario B and C), male external auditors showed higher ethical recognition scores, and judged more ethically issues presented than their female counterparts, while in three scenarios (i.e. scenarios B, C, and D), male external auditors exhibit less unethical intention than their female counterparts. These significant results are consistent with only three prior studies in the accounting context; two were related to ethical judgment, and found males to be more ethical than females in a study of professional accountants in Portugal (Marques & Azevedo-Pereira, 2009) and China (Shafer & Wang, 2011). Recently, females were found to be significantly less sensitive than their male counterparts in recognising ethical issues in a study of management accountants in Libya (Musbah et al., 2016).

Gender differences in EDM could be dependent on other factors that may influence EDM process, such as age, work experience and position level. Previous studies on gender in EDM have been criticised for not considering other important antecedents of ethical behaviour such as age and moral intensity (Nguyen et al., 2008). Likewise, Dawson (1997) argued that gender-based ethical differences may be attributed to age and work experience. In the current study, female auditors were younger than their male counterparts; the majority of the female auditors, i.e. 35%, who participated in the study, were aged less than 25 years compared to only 14% regarding their male counterparts. Similarly, male respondents have more years of work experience than female auditors, while only 18% of female auditors have 10 years or more of work experience, 45% of male auditors have 10 years or more of work experience. Likewise, high position levels within Egyptian audit firms appear to be dominantly occupied by male auditors. There were only 15% of female auditors at the position of manager and higher, whereas 35% of male auditors are at the position of manager or higher. Given the positive significant results regarding work experience, and position level in general, gender differences observed are more likely to be based on these differences. Future research could either refute or accept such claims.

Although gender-related results reported here are inconsistent with prior EDM research, a major limitation in this literature is the failure to control for social desirability response bias by the majority of the studies. Social desirability response

bias is likely to influence the relationship among variables in ethics research. Although prior literature suggests that females are more ethical than males, several studies reported females as more prone to the social desirability response bias than their male counterparts (e.g., Bernardi, 2006; Bernardi & Guptill, 2008; Dalton & Ortegren, 2011). These findings suggest that SDRB may confound the relationship between gender and EDM and questioned prior literature that revealed females as being more ethical than males. After controlling for SDRB in this study, as seen in chapter four (see section 4.3.2.4.4), results related to the effect of SDRB on EDM stages were very limited and negligible (i.e. in two of 12 cases). Thus, indicating that there is no evidence of an emergence of SDRB, and it is more likely that EDM responses provided represent the actual attitude of external auditors, for females and males alike. Therefore, it can be concluded that, in this study, male auditors have higher ethical stances than female auditors, and this conclusion is supported by the negligible effect of SDRB. These results are likely to emphasise the importance of controlling for SDRB in EDM research, specifically when examining gender differences.

Significant results were also found for personal moral philosophy in relation to external auditors EDM stages. As hypothesised, idealism was found to be significantly and positively related to only ethical intention in one scenario (i.e. scenario B), while relativism showed significant negative results with ethical recognition in the same scenario (i.e. scenario B), and with ethical intention in three scenarios (i.e. scenarios A, B and D). These results are consistent with several prior studies (e.g., Clouse et al., 2015; Musbah et al., 2016; Vitell & Patwardhan, 2008). Literature of business ethics provides consistent findings that Idealism (relativism) dimensions are positively (negatively) related to EDM stages of individuals (O'Fallon & Butterfield, 2005). These significant findings support Hunt and Vitell (1986) general theory of ethics in that an individual ethical orientation influences EDM stages. These results also confirm Forsyth (1992) propositions that the two dimensions of personal moral philosophy can influence business ethical decisions.

These findings suggest that Egyptian external auditors are less relativistic and high idealistic. It is argued that individuals' ethical orientation, although it can be modified to some extent by organisational and professional culture, it is previously determined by their societal cultural environment and personal experience (Shaub et al., 1993). According to Forsyth et al. (2008), Egypt is one of the five nations that were classified as absolutist in their ethics position along with Poland, South Africa, and to a lesser degree with Saudi Arabia and Korea. Absolutists (low relativism and high idealism) believe that through conformity to moral rules and standards, actions are ethical provided they yield positive consequences for all those involved. These findings could be attributed to the cultural factors of the Egyptian context. Egypt is one of a number of Arabic countries included in Hofstede, Hofstede, and Michael (2010) typology of cultural differences among nations. Egypt scored low in individualism and hence it was considered as a collectivistic country. However, Egypt scored high on the uncertainty avoidance. It is argued that in societies which characterised by high uncertainty avoidance, in which people tend to be securityseekers and intolerant, individuals will be more idealistic and less relativistic when making their ethical decisions, since adherence to moral absolutes (high idealism) rather than rejecting universal moral rules (low relativism) may reduce the uncertainty and ambiguity (Singhapakdi et al., 1994). It may be the influence of cultural factors that makes idealism positively related to EDM stages, ethical intention in specific.

Sparks and Hunt (1998) have also found that relativism is negatively related to EDM of marketing researchers and provided a possible explanation for the negative relationship between relativism and EDM. They argued that, in world where all issues are relativistic shades of grey and ethical issues might blend in with everything else, the disbelief in moral absolutes associated with relativism might reduce the likelihood of ethical violations standing out among other issues. Also, relative to idealists, relativistic individuals might consider ethical issues in general to be less important than idealists. One implication from these results is that discouraging relativistic moral philosophies (i.e. discouraging situational ethics) among external auditors could be one way to enhance their EDM abilities (ethical intention in specific).

Contrary to expectations, very limited significant effects were found for professional commitment on external auditor's EDM stages. As hypothesised, normative dimension of PC, and not affective, has a significant positive effect on ethical recognition in only one scenario (i.e., scenario D). Previous empirical studies on PC relationship with EDM stages in the business ethics context in general, as well as the external audit context specifically have been very limited and yielded mixed results. While some studies reported no or few significant results (e.g., Kaplan & Whitecotton, 2001; Yetmar & Eastman, 2000), other studies reported positive results regarding the effect of PC on EDM stages (e.g., Elias, 2006; Shafer et al., 2016).

These results indicate that Egyptian external auditors may not consider their commitment to the profession when making ethical decisions. It could be argued that Egyptian external auditors give less weight to their commitment to the profession when confronting ethical situations. Aranya et al. (1982) argued that PC is likely to be developed by means of professional socialisation/acculturation process that likely to occur in the early stages of career development, such as early career training, in which the emphasis on professional values and ethics. Within the Egyptian audit context, these training and socialisation processes that are likely to enhance auditors' commitment to professional values in their early career stages are almost non-existent (Wahdan, Spronck, Ali, Vaassen, & van den Herik, 2005). It is likely to predict that this could have a significant effect on Egyptian external auditors' attitudes towards professional values and norms and how they weight their commitment to the profession while making ethical decisions.

# 5.3 Organisational Variables and External Auditors' EDM Stages

Unlike personal variables, organisational variables in relation to auditors EDM stages have received limited attention in the audit ethics literature (Jones et al., 2003). In an attempt to address this limitation, this study examined three organisational variables in relation to the external auditors' EDM stages. Although limited results were found for code of ethics, ethical climate and firm size showed some significant results.

Regarding the differences in EDM stages based on the existence of code of ethics, limited support was found. In the majority of the cases, existence of code of ethics has

no significant association with differences in EDM stages. These results are consistent with several prior studies (e.g., Deshpande, 2009; Rottig et al., 2011). It is suggested that not only mere existence of code of ethics is important to the effectiveness of codes to influence ethical behaviour. Effectiveness of code of ethics within organisations is dependent on several other factors, including, provisions of examples; readability; tone at the top; relevance of the codes; realism of the issues covered by the code; senior management; communicating violations, and training, among others (Schwartz, 2004). Rottig et al. (2011) claimed that code of ethics needs to be frequently communicated and enforced and to be accompanied by an effective surveillance and sanctioning mechanisms to promote EDM within organisations. It is argued that existence of code of ethics must be accompanied with adequate professional and ethical training to be effective (Rottig & Heischmidt, 2007). In Egyptian audit firms, these systems of ethical infrastructure may not be present (Samaha & Hegazy, 2010); also Egyptian audit profession suffers a lack of formal sanctions that could mitigate the risks of unethical behaviour, and this could contribute to the ineffectiveness of organisational codes of ethics to influence ethical behaviour of external auditors. Therefore, within the Egyptian audit firms' context, attention should be paid to the interactive effects of code of ethics with other organisational variables, such as ethical training and ethical infrastructure. Also Egyptian audit firms should pay more attention to enforcement and communication of organisational code of ethics so that it can mitigate the risks of unethical behaviour. Another possible explanation is that the content of code of ethics within Egyptian audit firms may not be comprehensive enough to have the anticipated impact on auditors' EDM stages. Therefore, attention should be paid to the Egyptian audit firms' codes of ethics.

With respect to the ethical climate relationship with EDM stages, prior literature has reported significant results (see Chapter Two, section 2.4.2.3). In this study, only four ethical climate types that are commonly found in audit firms are examined in the Egyptian context, Egoistic/individual, Egoistic/local, benevolent cosmopolitan, and principled/cosmopolitan. Results showed limited significant results for Egoistic/ individual climate that was found to have a significant negative relationship with

EDM stages, ethical intention in particular, in one scenario, namely C. Also principle/cosmopolitan has a significant positive relationship with ethical intention in only one scenario (i.e., scenario B). Benevolent/cosmopolitan shows no significant results. These results are consistent with prior studies that found few or no significant effects between ethical climate types and EDM stages (Buchan, 2005; Musbah et al., 2016). Egoistic local, in which the emphasis on organisational interests, showed stronger significant results than the other climate types, it was found that Egoistic/ local climate are more likely to predict Egyptian external auditors' ethical recognition in two scenarios (i.e. scenarios A and D), while significantly related to ethical judgment in only one scenario (i.e. scenario A) and in three scenarios with respect to ethical intention (i.e. scenarios A, B and D). These results are consistent with the notion that firm's interest (Egoistic/local) may have more functional and salient influence on employees' perception of ethical climates (Parboteeah et al., 2010). These results indicate that Egyptian external auditors put greater emphasis on firm's interest when making ethical decisions than the other three climate types. Interestingly, inconsistent with what was hypothesised, the positive relationship between egoistic/local climates and EDM are more supported than the negative relationship. It seems that Egyptian external auditors have started to realise that being more ethical will maintain the firm's interests. Further examination of this issue may help in obtaining firm conclusions.

This could be linked to the moral development of Egyptian external auditors. It is argued that individuals are more or less susceptible to the influence of ethical climate types based on their stage of moral development (Shafer, 2008). Prior studies suggest that accountants in general tend to be at stage 4 of moral development or lower (Jones & Hiltebeitel, 1995), where the emphasis is on fulfilling duties and obligation towards related groups (e.g., organisational obligations). Therefore, it could be argued that Egyptian external auditors are more susceptible to the influence of Egoistic/Local (firm's interests) climate than the other three types of climate (principled, benevolent, Egoistic/individual) because of their stage of moral development. The interaction effects between cognitive moral development and the ethical climate influence on EDM stages should be examined in future investigations.

Regarding the differences in Egyptian external auditors' EDM stages based on the firm size showed some significant positive results. Auditors who work for the Big-X firms found to be more ethically sensitive in recognising ethical issues than their counterparts in smaller firms in two scenarios (i.e. scenarios A and D). Significant positive association was also found regarding ethical judgment in the same scenarios. As anticipated, the claim that big audit firms have stronger ethical stances than that of smaller firms found support in this study of Egyptian audit firms. These findings are consistent with several prior studies that reported significant results (e.g., Marta et al., 2008; Pierce & Sweeney, 2010; Sweeney et al., 2010).

These findings support the notion the auditors at Big-X firms are more ethical than auditors at smaller firms. It is argued that financial reliance as well as professional and social proximity to clients are a commonly found characteristics of smaller audit firms and thus, it is expected to find a higher degree of pressures to commit unethical acts in smaller firms than in larger ones (Doyle et al., 2014). These notions are arguably true with respect to Egyptian audit firms. Relative to Big-X firms, smaller firms, in Egypt, may not have sufficient resources to design and implement sound training programs on ethical and practice matters, knowledge differences between auditors who work for Big-X firms and their counterparts in smaller firms may be one reason behind the significant results reported here. Therefore, there is a need for further investigations in relation to assessing the ethical training needs of Egyptian external auditors who work for smaller firms so that to identify ways to enhance their EDM abilities to be, at least, similar to that in Big-X firms.

It could be also argued that differences in EDM stages based on firm size may be attributed to other factors (personal variables) such as professional certification. Big-X firms may attract or retain certified external auditors. The majority of certified auditors (i.e. 68%), who participated in this study, are working for big firms. This might be case given the results that indicated that professional certification, as discussed above, found to be positively associated with EDM stages.

# 5.4 Moral Intensity Dimensions and External Auditors' EDM Stages

Jones (1991) has criticised previous EDM models for their extensive focus on personal and organisational variables to explain EDM in organisations with implicit assumption that individuals will act similarly regardless the nature of the ethical issues they encounter. To capture the characteristics of the ethical issue, Jones (1991) conceptualised the moral intensity as multi-dimensional construct consist of six dimensions that are all examined in this study as related to the first three EDM stages (i.e., magnitude of consequences, social consensus, temporal immediacy, probability of effect, concentration of effect, and proximity) along four different context-based ethics scenarios.

Prior research in different contexts suggests that fewer dimensions, rather than six, could capture the moral intensity construct (Vitell & Patwardhan, 2008). In this study, moral intensity dimensions were subject to exploratory factor analysis and results support the notions that moral intensity is a multi-dimensional variable, however, the dimensions structure was found to be inconsistent with the original conceptualisation advanced by Jones (1991). Factor structure reveals moral intensity consists of two dimensions; they were named social pressure, and actual harm. Social pressure constitutes six items; three were related to social consensus (superiors, co-auditors, professional consensus) and three related to the harm done to the self and others (i.e., audit firm, stakeholders) in all scenarios. Actual harm constitutes three items, one related to overall magnitude of harm and the other two items related to temporal immediacy. Probability of effect loaded with this factor in only scenario (i.e., scenario A). Concentration of effect, proximity did not load on any of the factors.

All scenarios employed in this study represent ethical issues that are commonly encountered in the external audit practice with varying degrees. The two-dimensional factor structure of moral intensity found in this study is merely consistent among all the four scenarios employed. The results of factor analysis found in this study are also consistent with moral intensity factor structure suggested by prior studies. In an early examination of moral intensity dimensionality, Singhapakdi, Vitell, et al. (1996), among a sample of marketing professionals, suggested a similar two-factor solution. The first dimension labelled "perceived potential harm" and composed of the magnitude of consequences, probability of effect, temporal immediacy, and concentration of effect components, while the second dimension was labelled "perceived social pressure" and composed of the social consensus and proximity components. Similarly, among a sample of mid and top-level business managers, twofactor solution was also reported by Dukerich, Waller, George, and Huber (2000). While temporal immediacy loaded individually as a single factor, four of the remaining five moral intensity components (magnitude of consequences, social consensus, proximity, and concentration of effect) clustered into the second dimension which was labelled "organisational moral intensity". Yang and Wu (2009), in three of four scenarios employed, have also reported a two-dimensional factor structure of moral intensity dimensions. The first dimension, "perceived potential harm", was composed of magnitude of consequences, concentration of effect, probability of effect, and temporal immediacy. The second dimension was labelled "perceived social pressure" and composed of proximity and social consensus. In a study of accounting students, two-factor solution of moral intensity dimensions was also reported by Leitsch (2006). While magnitude of consequences, social consensus, probability of effect, temporal immediacy, and proximity loaded on a single factor which was labelled "perceived corporate concern", concentration of effect loaded on its own dimension and was labelled "perceived involvement effect". Although the two- factor solution was consistent among the four scenarios employed, the composition of each factor was situation specific.

Inconsistently, Valentine and Bateman (2011), while examining sales-based ethical reasoning among a sample of undergraduate business students, found that moral intensity could be represented by a single dimension that comprises magnitude of consequences, concentration of effect, temporal immediacy, and probability of effect.

A three-factor solution was also reported by three prior studies. Both McMahon and Harvey (2006) and Vitell and Patwardhan (2008) revealed that moral intensity construct could be represented in three dimensions; a single dimension labelled "perceived potential harm" composed of magnitude of consequences, probability of effect, temporal immediacy, and concentration of effect components, while social consensus, and proximity, each loaded as a single dimension. Most recently, Sweeney et al. (2013) have also reported three-dimensional solution for the moral intensity construct, however, different factor structure has been found. Firstly, a single factor labelled as "actual harm" including probability of effect, a single item to measure magnitude of consequences, and two items designed to capture temporal immediacy dimension. Secondly, three more items that was originally designed to measure magnitude of consequences was loaded as single dimension and labelled as "possible harm", and finally, three items designed to capture the social consensus dimension loaded as a single dimension and labelled as social consensus.

With the exception of the results reported by Valentine and Bateman (2011), findings reported here, along with the results reported by prior studies support Jones (1991) contentions regarding the multi-dimensionality of the moral intensity construct. In fact, the moral intensity construct could be synthesised in fewer than six dimensions as originally conceptualised by Jones (1991). Specifically, the current study suggests that the moral intensity construct could be captured by examining two dimensions (actual harm and social pressure) when studying ethical issues in the audit context. However, differences in the factor structure as well as the composition of the factors extracted reported in this study and that reported in other studies may be due to differences in the samples drawn, differences in contexts, as well as differences in the nature of the scenarios employed by these studies. Future research employing diverse scenarios among different samples could either refute or accept the factor structure reported in this study.

The findings reported here not only confirm Jones' (1991) propositions regarding the multiple facets of moral intensity, but also give a less complex interpretation for the moral intensity construct than that originally theorised by Jones. Three dimensions - proximity, probability of effect, and concentration of effect - were dropped from any of the two factors extracted in this study. It may be that the presence of the other three dimensions of moral intensity (i.e. magnitude of consequences, social consensus, and

temporal immediacy) influenced the perception of the dropped three dimensions (i.e. proximity, probability of effect, and concentration of effect). It could be argued that an auditor's perception of the seriousness (magnitude of consequences) and immediacy (temporal immediacy) of consequences of a given unethical act may discourage his/her discernment of the proximity of individuals in an ethical situation (proximity), or perception of the severity of harms in relation to individual affected by the unethical action (concentration of effect), or the likelihood that an action will be harmful (probability of effect). These arguments suggest that these three dimensions could be dropped in future moral intensity research. Similarly, instead of individually operationalising the other three dimensions (i.e. magnitude of consequences, social consensus, Temporal immediacy), social consensus and magnitude of consequences dimensions could be grouped together when assessing an ethical situation. It could be also argued that an auditor's perception of the seriousness of consequences resulting from an unethical act may instigate his/her thinking of the degree of social agreement regarding the unethicality of an ethical situation. Although these arguments sound reasonable, they are still preliminary and should be interpreted with caution. Through surveying other samples within different contexts, future research could confirm and generalise these results.

Findings of factor analysis reported in this study are also consistent with Shafer et al. (1999) contentions that the unique characteristics of the external audit profession may make proximity and concentration of effect dimensions irrelevant and ambiguous to external auditors. It is argued that all ethical issues related to the external audit of public companies are to be perceived as less concentrated. The litigation risk that might be associated with unethical actions concerning audit of public companies might have been counteracted with concentration of effect. It might be the case that the item is measuring litigation risk rather than concentration of effect. In this study, these arguments might be true with respect to Egyptian external auditors who participated in this study, as they are all auditors of listed companies. It could be also argued that proximity, appeared to be irrelevant to Egyptian external auditors, this might be because measurement item designed to capture the proximity dimension (i.e. methodological issue).

Results of the regression analysis indicate that moral intensity dimensions, as described above, are the strongest significant predictors of Egyptian external auditors' EDM stages among all the variables examined in this study. Perceived social pressure dimension was found to be positively related to ethical recognition, judgment, and intention stages of EDM in all of the four scenarios employed. Actual harm dimension was found to be significantly (but less strongly than social pressure) and positively related to ethical recognition and ethical judgment in two scenarios (i.e. scenarios A and C; and scenarios A and D, respectively), and in three scenarios with respect to ethical intention (i.e. scenarios A, B and C). These results support Jones' (1991) model of EDM, in that moral intensity predicted significantly EDM stages. These results are also consistent with several prior EDM studies (e.g., Arnold et al., 2013; Leitsch, 2006; Musbah et al., 2016; Sweeney & Costello, 2009; Sweeney et al., 2013).

The results indicate that Egyptian auditors place greater emphasis on societal norms when making ethical decisions. It is argued that individuals may look at social norms to reduce ambiguity when confronting ethical issues (Jones, 1991). It could be argued that these significant results are attributable to the cultural environment of the Egyptian context. It is argued that in collectivistic cultures, such as Egypt, the society as a whole is of vital importance, rather that its individual members (Hofstede, 1980). Thus, it is argued that Egyptian external auditors, in response to the collectivistic nature of the society, view social consensus and harm to others (social pressure) as more important than other factors when making decisions involving ethical issues. Therefore, the interaction effects of cultural values on the relationship between moral intensity and EDM stages should be examined as part of future investigations.

Egyptian audit profession could benefit greatly from findings drawn here. Training auditors on the potential adverse consequences of unethical behaviours, and effectively communicate the social perspective regarding unethical acts can enhance auditors' EDM abilities. These results also provide valuable insights for developing codes of ethics in audit firms. In conclusion, moral intensity dimensions (social pressure and actual harm) explained the most significant portion of the variance in external auditors' ethical recognition, judgment, and intention stages of EDM process.

#### 5.5 Summary

This chapter presented the discussion of the study findings. The results of this study indicate that contextual (organisational: firm size and ethical climate, and moral intensity dimensions) are stronger than personal variables (experience, position level, certification status, gender) in predicting significantly EDM stages of external auditors. Since most of the prior audit ethics research has focused on personal factors (cognitive moral development specifically), thus this study recommends that, in future research of external auditors' EDM, attention should be given to contextual factors in line with personal variables to obtain a clearer picture regarding the factors that may influence external auditors' EDM process. Findings of this study contribute valuable and important insights to the literature of business ethics regarding the EDM process of external auditors. Contributions to knowledge this study has made and the strengths, limitations, and suggestions for future research are presented in the next chapter.

# 6.1 Introduction

The targeted aims and objectives of this study have been met. At the end of the thesis, it is crucial to summarise and discuss the broader implications of the study findings, drawing attention to the contributions and significance of the research, and highlight the limitations to be considered. This chapter is then designed to highlight the main contributions provided by this study and the implications to interested parties including future researchers.

This chapter is organised as follows. The second section presents the contributions to knowledge advanced by the current thesis. While the third section addresses the practical and theoretical implications of the study, the fourth section highlights the strengths, limitations and suggestions for future research. The chapter was summarised in the last section.

## 6.2 Contribution to Knowledge

This research has contributed to EDM literature in the general business ethics area and specifically to the external audit ethics in several ways:

Firstly, this study extends prior EDM literature as well as prior audit ethics research through examining a wide range of personal, organisational, and issue-specific (moral intensity) variables in relation to EDM stages in the external audit context. This study identified the roles that these variables may play in EDM process. Some variables were found to be significantly related to EDM stages, however, other variables have showed non-significant effects. Adding new evidence to the EDM literature is certainly one of the main contributions this study is offering. These insights may assist practitioners in paving pathways to enhancing auditors' EDM abilities and thus mitigating the risks of occurrence of unethical acts.

Secondly, most of the research that examined moral intensity in relation to EDM stages has focused on only one or two dimensions namely, magnitude of consequences and social consensus in particular (e.g., Mencl & May, 2009; Ng et al., 2009). O'Fallon and Butterfield (2005) have called for more research on the other four dimensions of moral intensity. Generally, more research on moral intensity dimensions in relation to EDM stages has been one of the common themes called for by studies reviewed by Craft (2013). Within the audit context specifically, Cohen and Bennie (2006) called for more research on moral intensity in the accounting ethics context. This study contributes to the business ethics literature in general and audit ethics in specific through examining and testing for the dimensionality of the six-dimensions of moral intensity and its relationship with external auditors' EDM stages.

Past research shows inconsistent dimensional structure for the moral intensity construct. This study added new evidence that moral intensity construct appears not to be consist of the six characteristics as originally posited by Jones (1991), but to consist of two dimensions, social pressure, and actual harm. Understanding the factor structure of the moral intensity construct may aid future researchers who aim at examining moral intensity effects on EDM stages. It implies that moral intensity dimensions could be captured through measuring only two dimensions rather than the six originally conceptualised by Jones (1991). In cases of lengthy questionnaires similar to the one employed here, this will give room to future researchers to operationalise other potential variables in relation to EDM stages. Furthermore, the findings provide additional support for Jones's (1991) propositions that differences in EDM stages could be explained in part by the nature and the context of the ethical issue under question.

Thirdly, most of the previous studies in business ethics have focused on examining a few variables, such as organisational size, gender, and educational level in relation to one or two stages of EDM as conceptualised by Rest (1986), usually judgment and intention stages, with relatively scant attention being given to ethical recognition and behaviour stages. This limitation is extended to the narrower audit ethics literature, where the focus was also on judgment and intention stages (auditors' moral

development in particular). This study added to general business EDM literature as well as external audit ethics literature specifically, by examining a wider range of personal and contextual variables in relation to three rather than one or two stages of EDM process focused upon in the majority of prior EDM literature.

Fourthly, previous EDM research in general, and the external audit ethics specifically, has largely focused on personal variables in relation to EDM stages with a relatively limited attention to organisational (e.g. ethical climate) and moral intensity variables. This study contributes to the business ethics literature in general, and the accounting and audit literature specifically, by examining and supporting the notion that contextual factors significantly influence EDM process. Thus, giving academics and practitioners a better understanding of the EDM process in business organisations in general, and audit firms in specific.

Fifthly, this study provides insights concerning business ethics in general and audit ethics in particular in developing countries. Several researchers have called for research on EDM issues in a non-western context. To the best of the researcher's knowledge, no prior research has examined external auditors' EDM process in a Middle-Eastern country. Thus, this study has partially filled this gap by providing insights that can help in understanding business ethics in developing countries. The results of this study may assist international audit firms operating cross-nationally in understanding the ethical mindset of auditors in developing countries and this could help in maintaining consistency of ethical practices among global international offices.

Sixthly, Bampton and Cowton (2013) urges future research to include more accounting-based scenarios targeted at the appropriate research subjects. Unlike the majority of prior EDM studies in the external audit context, this study employed four context-based ethical scenarios that appeared relevant to the auditing context in Egypt. Testing these scenarios in a developing audit context has contributed to the accounting ethics literature in that these scenarios could be used in future research of auditing ethics, especially those targeting respondents in other developing countries.

Insights gained through this study could be also extended to other developing countries, which share similar cultural characteristics.

Seventhly, EDM literature has been consistently criticised for the lack of theory development (Campbell & Cowton, 2015; Craft, 2013; O'Fallon & Butterfield, 2005). This study employed several theoretical models to investigate the EDM process of external auditors (e.g., Jones (1991) issue-contingent model), and provided valuable findings. Employing theoretical models available in the literature, rather than developing a new one, gives a broader picture of the factors underlying EDM process in organisations.

#### 6.3 Implications of the Study Findings

Having presented and discussed the study's empirical findings in the last two chapters, the contributions have been highlighted in the last section, based on which several implications could then be drawn that may interest several parties including future researchers.

Several personal variables were examined in relation to external auditors' EDM stages. The significant negative relationship found between relativism and ethical intention implies that discouraging relativistic philosophy may be one approach to consider for enhancing EDM abilities of Egyptian external auditors.

The very limited association found in the present study between EDM stages and educational level of external auditors suggest paying more attention to accounting education in Egypt if we aim to enhance the process of EDM of Egyptian external auditors. Paying more attention to integrating ethics courses in accounting education within Egyptian universities and conducting ethical training courses within Egyptian audit firms may help in improving EDM abilities of Egyptian external auditors.

Also, the positive association of auditor's professional certification with EDM stages has practical implications, findings strengthen the significance of continuing professional education to enhance auditor's EDM capabilities in general and confirmed the practical usefulness of professional certification programs and associated training and socialisation processes in particular. Egyptian audit firms, in order to promote ethical values within audit departments, may pursue promoting the importance of obtaining prominent professional certifications among staff auditors and design effective training strategies and continuing professional education programs to assist those auditors in attaining the required certifications.

Regarding the three organisational variables examined, although, the Big X firms have been subjected to heavy public scrutiny following the spate of audit failures in the recent decades, significant results found here tend to support that auditors employed by Egyptian Big X firms are more ethically sensitive, judge questionable ethical issues as more unethical, than their counterparts employed in smaller firms. These findings suggest that future research should pay more attention to ethics in non-big X firms. Examining EDM process in those firms may assist in enhancing their EDM abilities.

The limited differences found in external auditors' EDM stages based on the existence of code of ethics suggest that Egyptian audit firms shall pay more attention to its enforcement and communication as well as maintaining a supportive ethical infrastructure including, for example tone at the top and ethical training. Also adopting effective sanctioning mechanisms may enhance the effectiveness of code of ethics in mitigating the risks of unethical behaviours and enhancing the EDM capabilities of external auditors.

Also, while designing ethical training programs, Egyptian audit firms must take into consideration the moral intensity of the ethical issues auditors' face. The positive effects of moral intensity dimensions on EDM stages of external auditors suggest that ethical training programs shall be designed to emphasise and raise awareness among auditors concerning the actual harm and social consensus in particular regarding the ethical issues under question.

#### 6.4 Strengths, Limitations and Future Research

Interpreting the findings and looking at the implications of the study should be done in the light of the study's strengths and limitations.

Unlike other studies that examine external auditor's EDM process and focuses on samples of audit trainees and auditors at pre-manager levels (e.g., Pierce & Sweeney, 2010; Sweeney et al., 2010; Sweeney et al., 2013), or audit partners (e.g., Barrainkua & Espinosa-Pike, 2015), a significant point of strength in the current study is the relatively large sample of external auditors that represents a varied set of participants (external auditors) at all position levels. Because of the increasing time pressures that auditors commonly face on a daily basis, and the confidentiality considerations they emphasises of both the firm's and client's data, access to external auditors is becoming increasingly rare (Power & Gendron, 2015; Sweeney et al., 2010). It may be because audit firms and audit staff became tired of being asked to donate their time for assisting academic research. The use of pretested external audit-based scenarios also added value to the current study, a relatively few researchers have used contextbased ethical scenarios in audit ethics research (Arnold et al., 2013; Sweeney et al., 2013). Also, employing four ethical scenarios rather than two or three scenarios that is commonly employed in many other studies is another point of strength of the current study, however, the use of hypothetical audit scenarios does not capture the real pressures that auditors encounter in the real audit environment (Sweeney et al., 2010).

Despite the constraints on the volume of data the researcher was able to collect, a relatively lengthy questionnaire has been employed that enabled the researcher to include a measure for socially desirability response bias. A feature that has been largely ignored in empirical business ethics research (Campbell & Cowton, 2015); unlike many studies of EDM that failed to operationalise the social desirability response bias (e.g., Arnold et al., 2013; Bobek et al., 2015), inclusion of a direct measure of such bias is a noteworthy point of strength of the current study.

Another point of strength that is worth noting is the use of multiple-item measures of moral intensity rather than single-item measures that are heavily employed by business ethics researchers. The adopted multiple-item measures used in this study have been originally developed and adopted by Sweeney et al. (2013). This study is also unique in that it focuses on Egyptian external auditors and, as such, it provides a basis for further research into EDM of auditors in other Arab and Middle Eastern countries, which is totally ignored in previous literature.

Along with these acknowledged points of strengths, as is the case of social research in general, and business ethics research in particular, this study is subject to a number of limitations that deserve to be addressed here; thus, the results should be interpreted with a certain degree of caution. It is significant to note that the relationships observed are all based on correlational analysis (Correlation and Regression analyses). Consequently, inferences regarding causal relationships among the variables examined cannot be established. Although it may be challenging to develop reliable experimental manipulations of some of the variables examined (e.g., professional commitment, personal moral philosophy), more assurance concerning causal relationships could be obtained through further experimental designs. Similarly, the effects of some personal variables examined in the current study such as age, educational level, and work experience could be further examined by adopting longitudinal designs. Additionally, the use of alternative research methods, such as interviews could provide an in-depth understanding of EDM process. Although the use of such methods entails some challenges and difficulties, its use is highly recommended in the general business ethics literature (Campbell & Cowton, 2015; Cowton & Downs, 2015; Lehnert et al., 2016).

A methodological limitation in this study may also arise from the employment of a single-item measure for each stage of EDM process. Using single-item may threaten the reliability of findings; however single item measure for EDM stages has been consistently employed in prior ethics studies and provided fruitful results. Future research could benefit greatly from employing more reliable measure of EDM stages that can capture these complex constructs.

Although the measurable response rate of this study is reasonable (60.5 usable) given the length of the questionnaire, the influence of non-response bias is another issue of concern in social research in general and ethics research in specific, and should be tested for its effects on the study's results. In this study, comparisons have been conducted between responses provided by early respondents and that of late respondents revealing no significant differences. Thus, indicating that non-response bias is not a worry. It is worth noting here that more meaningful tests of non-response bias could be conducted if comparisons have been made between, for example demographic characteristics of respondents and non-respondents. However, data concerning all recipients of the questionnaire was not available to the researcher.

As is the case when doing research in Middle Eastern and other developing countries, the lack of external auditors' population data in Egypt has constrained the application of representativeness tests of the sample. However, there is no evidence that may suggest the sample as unrepresentative to the population of interest; extensive attention has been paid to plan the sample of the current study, the sample consists of all external audit staff working for 19 audit firms that audits the majority of the 214 listed companies in the Egyptian stock exchange at the time this study was conducted. Since the sample includes relatively large firms that audit listed companies, a further limitation shall be addressed here concerning the generalisation to smaller and local firms. If this study to be conducted among local firms within further research, it may generate alternative results that may be interesting.

Although the current study provides interesting results regarding auditors' EDM process, findings are limited to the research context (Egypt), future research could consider other developing countries and whether there were any significant differences regarding the relationships examined. Findings in this area could enhance our understandings of auditors' EDM process in these countries. Also cross-cultural comparisons of external auditors' EDM and the variables underlying it between developed (e.g., UK) and developing countries such as Egypt may offer valuable insights into potential differences or similarities that could guide global audit firms in maintaining consistency in audit approach and ethical practices in different countries.

The scope of this study has been confined to examine external auditors. Despite considerable commonalities that exist among diverse audit functions (external, internal, governmental) including, but not limited to, the aim to provide assurance on the financial reporting system, and relying heavily on common set of ethical rulings and standards, future research could complement the current study findings by examining EDM process and variables influencing it using samples drawn from other auditors' groups. Interesting results could be generated if EDM process of internal or governmental auditors is examined individually or in comparison to each other or to external auditors.

Regarding ethical climate in audit firms, the current study's results are based on auditor's perceptions of their firms' ethical climate which may/may not be different from the real ethical climate in practice. However, in terms of influencing EDM process, perceptions may not be different from reality (Craft, 2013). On the other hand, not all nine types of the climate instrument as conceptualised by Victor and Cullen (1987, 1988) were measured in the current survey. Constraints regarding the length of the questionnaire lead to examination of only four types instead of nine. Selection of types of ethical climate examined was based on that those types are the most commonly found with the context of audit firms. Future research could examine all nine types.

Similarly, only two of the three dimensions of professional commitment as suggested by Meyer et al. (1993) were investigated in relation to EDM stages and very limited significant relationships were observed. Although, it is thought unlikely, examining the effect of continuance commitment in future research may yield interesting findings. Furthermore, this study investigated the influence of a broad set of variables on only the first three stages of EDM process. Thus, including the ethical behaviour component in future research could be considered. Although, examining this stage is surrounded by many methodological and practical challenges, future research may employ alternative research methods (e.g., observations). Apart from the above limitations, the results reported in this study and the related discussion poses several questions that could provide several opportunities for future empirical research. EDM researchers could complement the current study's results with examining other potential variables including for example, religion and culture in relation to EDM, especially in Muslim majority countries. Today's heightened interest in Islamic ethics has portrayed the need to examine the effect of religion on business ethical practices. Potential influences of these variables could be examined in future research.

#### 6.5 Summary

This chapter presented a summary of the study. Conclusions and implications of the study results were also presented in this chapter. Several contributions to the business ethics literature were highlighted including updating and adding additional evidence to the EDM literature in the accounting context generally and external audit context specifically. Implications and recommendations have been discussed. Personal, organisational and moral intensity variables that influence external auditors' EDM have been identified within one of the developing countries, namely Egypt. In general, this study offers significant insights concerning external auditors' EDM process and provides several opportunities for future research. Finally, the major strengths and limitations of the current study were highlighted and suggestions for future research were advanced.

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## **Appendices**

**Appendix A: The English Questionnaire** 

# Study of External University of A Audit-related Decision- HUDDERSFIELD **Making Process**

**Department of Accountancy and Finance** 

**The Business School** 

### **Dear External Auditor**,

The researcher is an Assistant-Lecturer at the Arab Academy for Science, Technology & Maritime Transport in Cairo. Currently, he is carrying out a PhD research in Accounting at the Business School, University of Huddersfield, UK. The research aims to investigate the factors influencing external auditors' audit-related decision-making process within Egyptian audit firms. As you are an experienced external auditor working in Egypt, your assistance in completing this questionnaire will be of high value to achieve the aims of the current research. You are therefore cordially invited to participate in this survey.

The survey covers general information, and contains four audit-related hypothetical scenarios. It will take you approximately 20 to 30 minutes to answer the questions. There are no right or wrong answers. We are only interested in vour opinions, which will be greatly appreciated.

Your participation in this research is entirely voluntary. We assure you that your responses will be treated in the strictest confidence. This questionnaire has no identifying marks. All answers will be aggregated and summarised into one report. No reference will be made either to you or your firm arising from the results of the questionnaire. No one from your firm will see any of the completed questionnaires. Your individual responses and all information derived from this questionnaire will remain with us and be kept secure and only used for the purposes of academic research.

An envelope is enclosed for your completed questionnaire.

Should you need further details on the research, please feel free to contact us at U1078809@hud.ac.uk. Alternatively, you may contact the research supervisor at c.j.cowton@hud.ac.uk.

Thank you in anticipation for your kind co-operation.

Yours faithfully,

Hady Abozeid PhD Candidate, Department of Accountancy and Finance U1078809@hud.ac.uk

**Under Supervision Of:** Professor Christopher J. Cowton, PhD, DLitt 324 Professor of Accounting and Dean of the Business School c.j.cowton@hud.ac.uk

University of Huddersfield The Business School Queensgate, Huddersfield HD1 3DH, UK

# Section A

# A1. Age

Please tick only one  $\Box$  Less than 25 □ 25 - <35 □ ∠3 - <35 □ 35 - <45

□ 45 - <55  $\Box$  55 and over A2. Gender Please tick only one  $\Box$  Male □ Female

## A3. Academic Qualification

Please tick your highest qualification □ Business/Accountancy Bachelor's degree □ Master's (or its equivalent) □ Postgraduate diploma □ PhD (or its equivalent) □ PhD (or its equivalent)

#### A4. Professional Qualification

*Tick all that apply* Currently in Training contract DAESAA/FESAA (Egyptian Society for Accountants and Auditors) □ ACA/FCA (Chartered Accountants "ICAEW") CPA (American Institute of Certified Public Accountants "AICPA") □CIA (Institute of Internal Auditors) DACCA /FCCA (The Association of Chartered Certified Accountants "ACCA") □No professional qualification **Other** qualifications, please *specify*:

#### **A5.** Current Job Title

*Please tick only one* □Audit Trainee □Junior/Staff level/Associate Auditor Senior Auditor/Assistant Manager

□Mana	iger/Sei	nior Ma	nager
Direc	tor/Par	tner	

$\Box$ Other,	please	specify:
---------------	--------	----------

A6. Years of Audit Experience		
Please tick only one		
□Less than 5	<b>□</b> 15 - <20	
<b>□</b> 5 - <10	<b>□</b> 20 - <25	
□10 - <15	$\Box$ 25 years and over	

# A7. Code of Ethics

## Does your firm have explicit written Down guidelines for ethical conduct?

For example, in a standalone booklet (Namely, e.g., Code of ethical conduct, Code of Professional conduct, etc., or in some other form (e.g., employee handbook, Firm's business conduct guidelines.)

□No

□Yes

# Section B

Please circle the relevant number to indicate <u>how *true*</u> you think the following statements about your firm <u>are</u>, <u>not how you prefer it to be</u>, using the following response scale:

Completely	Mostly False	Somewhat	Uncertain	Somewhat	Mostly True	Completely
False		False		True		True
1	2	3	4	5	6	7

1	In this firm, the law or professional ethical code of ethics is the major consideration	1	2	3	4	5	6	7
2	People in this firm are actively concerned about the public interest	1	2	3	4	5	6	7
3	The first consideration is whether a decision violates any law	1	2	3	4	5	6	7
4	People in this firm are very concerned about what is best for themselves	1	2	3	4	5	6	7
5	Decisions here are primarily viewed in terms of contributions to firm's profits	1	2	3	4	5	6	7
6	In this firm, people are mostly out for themselves	1	2	3	4	5	6	7
7	People in this firm have a strong sense of responsibility to the outside community	1	2	3	4	5	6	7
8	Work is considered sub-standard only when it hurts the firm's interests.	1	2	3	4	5	6	7
9	It is expected that you will always do what is right for the public interest	1	2	3	4	5	6	7
10	In this firm, people are expected to strictly follow legal or professional standards	1	2	3	4	5	6	7
11	People are expected to do anything they can to further the firm's interests	1	2	3	4	5	6	7
12	The effect of decisions on the public interest is a primary concern in this firm	1	2	3	4	5	6	7
13	People are concerned with the firm's interests - to the exclusion of all else	1	2	3	4	5	6	7
14	In this firm, people protect their own interests above other considerations	1	2	3	4	5	6	7
15	There is no room for one's own personal morals or ethics in this firm	1	2	3	4	5	6	7
16	People are expected to comply with the law and professional standards over and above other considerations	1	2	3	4	5	6	7

# Section C

 $C_1$ . Please indicate the extent to which you agree with each statement. Each represents a commonly held opinion and there is no right or wrong answer. We are interested in your reaction to such matters of opinion. While answering, use the following response scale and circle the number corresponding to your level of agreement with each statement

Strongly	Disagree	Slightly	Uncertain	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree
1	2	3	4	5	6	7

1	People should make certain that their actions never intentionally harm another even to a small degree	1	2	3	4	5	6	7
2	Risks to others should never be tolerated, regardless of how small the risks might be	1	2	3	4	5	6	7
3	The existence of potential harm to others is always wrong, regardless of the benefits to be gained	1	2	3	4	5	6	7
4	One should never psychologically or physically harm another person	1	2	3	4	5	6	7
5	One should not perform an action that might in any way threaten the dignity and welfare of another individual	1	2	3	4	5	6	7
6	If an action could harm an innocent person, then it should not be done	1	2	3	4	5	6	7
7	Deciding whether or not to perform an act by balancing the positive against the negative consequences of the act is immoral	1	2	3	4	5	6	7
8	Dignity and welfare of people should be the most important concern in any society	1	2	3	4	5	6	7
9	It is never necessary to sacrifice the welfare of others	1	2	3	4	5	6	7
10	Moral actions are those that closely match ideals of the most "perfect" action	1	2	3	4	5	6	7
11	No ethical principles are so important that they should be a part of any code of ethics	1	2	3	4	5	6	7
12	What is ethical varies from one situation and society to another	1	2	3	4	5	6	7
13	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person	1	2	3	4	5	6	7
14	Different types of moralities cannot be compared as to "rightness"	1	2	3	4	5	6	7
15	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual	1	2	3	4	5	6	7
16	Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others	1	2	3	4	5	6	7
17	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes	1	2	3	4	5	6	7
18	Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment	1	2	3	4	5	6	7
19	No rule concerning lying can be formulated; whether a lie is permissible or not totally depends upon the situation	1	2	3	4	5	6	7
20	Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action	1	2	3	4	5	6	7

 $C_2$ . Please indicate the extent to which you agree with each of the following general statements about you. While answering, use the following response scale and circle the number corresponding to your level of agreement with each statement.

	Strongly Disagree	Disagree	Slightly Disagree	Uncertain	Slightly Agree	Agre	e	S	Stron Agr			
	1	2	3	4	5	6			7			
1	Auditing is imp	ortant to my in	nage			1	2	3	4	5	6	7
2		•	0	n		1	2	3	4	5	6	7
3		regret having entered the auditing profession am proud to be in the auditing profession								5	6	7
4	•	dislike being an auditor									6	7
5	I do not identif	1	2	3	4	5	6	7				
6	I am enthusiast					1	2	3	4	5	6	7
7	I believe peopl stay in that pro-			•	e a responsibility	to 1	2	3	4	5	6	7
8	I don't feel any	obligation to s	tay in the audit	ting profession		1	2	3	4	5	6	7
9	I feel a respons	ibility to the au	diting professi	on to continue w	vorking in it	1	2	3	4	5	6	7
10	Even it were to my advantage, I do not feel that it would be right to leav auditing now							3	4	5	6	7
11	I would feel gu	I would feel guilty if I left auditing								5	6	7
12	I am in auditing	g because of a s	ense of loyalty	v to it		1	2	3	4	5	6	7

# <u>Section D</u> IN THIS SECTION, <u>FOUR</u> SCENARIOS CONCERNING EXTERNAL AUDIT PRACTICE ARE PRESENTED. USING THE SCALE UNDER EACH SCENARIO, PLEASE INDICATE YOUR ANSWER FOR EACH ONE.

# <u>Scenario D1</u>

You are Ahmed Salem, an Audit Senior. You and Amr El-Rewiny, a partner in the audit firm, are completing the 2013 audit of El-Gawady Stores, Ltd. (GSL), a privately-owned company. The owner of GSL, Ali El-Gawady, owns several businesses and is one of the firm's significant tax and auditing clients. El-Gawady is currently negotiating to sell GSL. A tentative sale price has been agreed upon, but is contingent upon the audit verification of the net realizable value of accounts receivable and inventory. GSL has total current assets of **L.E 5,000,000** and profit before tax (before audit adjustments) of **L.E 500,000**. Near the end of the audit, Amr, the audit partner, has a disagreement with El-Gawady regarding the adequacy of the provision for doubtful accounts. Based on GSL's historical collection experience, Amr estimates that provision is understated by **L.E 400,000**. Although there has been some improvement in economic conditions in GSL's market areas, Amr believed it is unlikely to significantly impact the collectability of their receivables.

# Action: You later learn that because El-Gawady is a valued client of the firm, Amr, the partner, accepted the client's interpretation of the provision of L.E 100,000 not L.E 500,000 and gave an unqualified (clean) audit opinion on the financial statements.

Please evaluate Amr's action by circling the extent of your agreement or disagreement with each of the following statements according to the following scale:

	Strongly Disagree 1	Disagree 2	Slightly Disagree <b>3</b>	Uncertain <b>4</b>	Slightly Agree 5	Ag			Stron Ag	ree			
1	The situation above involves an ethical problem123456												
2		Amr should not have accepted the provision of $\pounds 100,000$ 1 2 3 4 5 6										7	
3											7		
4											7		
5	Amr himself wo				•	1	2	3	4	5	6	7	
6	The audit firm where Amr is employed would be significantly harmed as a 1 2 3 4 5 6 consequence of this action								7				
7	Stakeholders of El-Gawady's company would be significantly harmed as a 1 2 3 4 5 consequence of this action									5	6	7	
8	Your superiors v	would agree that	at Amr's action	is wrong		1	2	3	4	5	6	7	
9	Most auditors a wrong	t your level ir	ı your firm wo	ould agree that	Amr's action is	1	2	3	4	5	6	7	
10	Most members action is wrong	of the audit p	rofession in g	eneral would a	gree that Amr's	1	2	3	4	5	6	7	
11	Amr's action wi	ll not cause an	y harm in the ir	nmediate future		1	2	3	4	5	6	7	
12	Amr's action wi	ll not cause any	y harm in the lo	ong term		1	2	3	4	5	6	7	
13	Amr's action wi	ll harm very fe	w people, if an	У		1	2	3	4	5	6	7	
14	Amr's action would be wrong if he is a personal friend of the person(s) 1 2 3 4 5 6 harmed								7				
15	There is only a v	very small char	ce that Amr's a	action will actua	lly cause harm	1	2	3	4	5	6	7	

# Scenario D2

You are Yehia Hashem, an audit senior. You and Hazem Magdy are the audit seniors assigned to the audit of **El-Nour** Company. This is Hazem's second year on this audit and there were no particular problems found in last year's audit. Reviewing the internal control system did not indicate anything particularly worrisome. Your audit team members are under considerable time pressure on this audit. Hazem has had previous time problems on audits and has received poor staff evaluation. He believes that it is important that he meets the time budget and deadline for this audit in order to get a good evaluation.

According to the audit programme for El-Nour Company, one of the audit tests specified that Hazem was to select 10 inventory items from the inventory sheets and check that they had been correctly valued by comparing cost prices on the inventory sheets with those on the supplier invoices. The company has a large number of inventory items with different serial codes and locating the invoice and comparing the price can be time-consuming.

# Action: In order to save time, Hazem does not attempt this test at all but signs it off on the audit programme as completed.

Please evaluate Hazem's action by circling the extent of your agreement or disagreement with each of the following statements according to the following scale:

Strongly	Disagree	Slightly	Uncertain	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree
1	2	3	4	5	6	7

1	The situation above involves an ethical problem	1	2	3	4	5	6	7
2	Hazem should not have signed off the test as completed	1	2	3	4	5	6	7
3	I would act in the same manner as Hazem in the above scenario	1	2	3	4	5	6	7
4	The overall harm (if any) as a result of Hazem 's action would be very small	1	2	3	4	5	6	7
5	Hazem himself would be significantly harmed as a consequence of this action	1	2	3	4	5	6	7
6	The audit firm where Hazem is employed would be significantly harmed as a consequence of this action	1	2	3	4	5	6	7
7	Stakeholders of El-Nour Company would be significantly harmed as a consequence of this action	1	2	3	4	5	6	7
8	Your superiors would agree that Hazem 's action is wrong	1	2	3	4	5	6	7
9	Most auditors at your level in your firm would agree that Hazem 's action is wrong	1	2	3	4	5	6	7
10	Most members of the audit profession in general would agree that Hazem's action is wrong	1	2	3	4	5	6	7
11	Hazem 's action will not cause any harm in the immediate future	1	2	3	4	5	6	7
12	Hazem 's action will not cause any harm in the long term	1	2	3	4	5	6	7
13	Hazem 's action will harm very few people, if any	1	2	3	4	5	6	7
14	Hazem 's action would be wrong if she is a personal friend of the person(s) harmed	1	2	3	4	5	6	7
15	There is only a very small chance that Hazem 's action will actually cause harm	1	2	3	4	5	6	7

# Scenario D3

You are Ahmed El-Sherbiny, an audit senior. You and Tarek Yassin, the audit manager, are assigned to the audit of El-Masryeen Automotive, a public company. Your firm has conducted the audit for the past four years during which an adequate working relationship with El-Masryeen has been established. While this is the first year you have been assigned to this audit engagement, Tarek has been on the El-Masryeen audit for the three previous years and is well liked by the client. The current Financial Controller is leaving soon. While making inquiries with the Assistant Financial Controller, you were surprised to learn that the audit manager, Tarek, has been offered the position of Financial Controller at El-Masryeen. You are also told that he is still deciding whether to accept the position.

# Action: Tarek has continued in his role in the audit of Modern Appliances without reporting the job offer to the engagement partner.

Please evaluate Tarek's action by circling the extent of your agreement or disagreement with each of the following statements according to the following scale:

Strongly Disagree	Disagree	Slightly Disagree	Uncertain	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1	The situation above involves an ethical problem	1	2	3	4	5	6	7
2	Tarek should not continue in his role in this audit engagement	1	2	3	4	5	6	7
3	I would act in the same manner as Tarek in the above scenario	1	2	3	4	5	6	7
4	The overall harm (if any) as a result of Tarek's action would be very small	1	2	3	4	5	6	7
5	Tarek himself would be significantly harmed as a consequence of this action	1	2	3	4	5	6	7
6	The audit firm where Tarek is employed would be significantly harmed as a consequence of this action	1	2	3	4	5	6	7
7	Stakeholders of El-Masryeen would be significantly harmed as a consequence of this action	1	2	3	4	5	6	7
8	Your superiors would agree that Tarek's action is wrong	1	2	3	4	5	6	7
9	Most auditors at your level in your firm would agree that Tarek's action is wrong	1	2	3	4	5	6	7
10	Most members of the audit profession in general would agree that Tarek's action is wrong	1	2	3	4	5	6	7
11	Tarek's action will not cause any harm in the immediate future	1	2	3	4	5	6	7
12	Tarek's action will not cause any harm in the long term	1	2	3	4	5	6	7
13	Tarek's action will harm very few people, if any	1	2	3	4	5	6	7
14	Tarek's action would be wrong if he is a personal friend of the person(s) harmed	1	2	3	4	5	6	7
15	There is only a very small chance that Tarek's action will actually cause harm	1	2	3	4	5	6	7

#### Scenario D4

You are Ehsan Abd El-Fatah, an audit senior. You and Heba Helal, the audit manager, are both assigned to the audit of El-Sayad & Co., a privately held firm. El-Sayad's market share has declined drastically, and Heba knows that El-Sayad will soon be insolvent. Another of Heba's audit clients is El-Sherif Company. While auditing El-Sherif's accounts receivable, Heba finds that El-Sayad & Co. owes El-Sherif **L.E** 200,000. Since this represents 10 percent of El-Sherif's receivables, El-Sherif's financial position might be in question as a result of El-Sayad's insolvency, which may influence her opinion concerning whether El-Sherif Company is a going concern.

# Action: Heba warns the client, El-Sherif Company, about El-Sayad's impending insolvency.

Please evaluate Heba's action by circling the extent of your agreement or disagreement with each of the following statements according to the following scale:

	Strongly DisagreeDisagreeSlightly DisagreeUncertain AgreeSlightly AgreeAgreeStrongly Agree1234567													
1	The situation a	bove involves a	n ethical probl	em		1	2	3	4	5	6	7		
2	Heba should no	ot warn El-Sher	if company ab	out El-Sayad's p	position	1	2	3	4	5	6	7		
3	I would act in t	he same manne	r as Heba in th	e above scenari	0	1	2	3	4	5	6	7		
4	The overall ha small	rm (if any) as	a result of He	ba 's action w	ould be very	1	2	3	4	5	6	7		
5	Heba herself v action	vould be signi	ficantly harme	d as a consequ	ence of this	1	2	3	4	5	6	7		
6	The audit firm as a consequent			ould be signification	antly harmed	1	2	3	4	5	6	7		
7	Stakeholders of consequence of		Co. would be	e significantly	harmed as a	1	2	3	4	5	6	7		
8	Your superiors	would agree th	at Heba 's acti	on is wrong		1	2	3	4	5	6	7		
9	Most auditors a is wrong	at your level in	your firm wo	uld agree that H	Ieba's action	1	2	3	4	5	6	7		
10	Most members Heba's action i		profession in	general would	d agree that	1	2	3	4	5	6	7		
11	Heba's action v	will not cause a	ny harm in the	immediate futu	re	1	2	3	4	5	6	7		
12	Heba's action v	will not cause a	ny harm in the	long term		1	2	3	4	5	6	7		
13	Heba's action v	will harm very f	ew people, if a	any		1	2	3	4	5	6	7		
14	Heba's action v harmed	would be wrong	g if she is a per	sonal friend of	the person(s)	1	2	3	4	5	6	7		
15	There is only a harm	very small ch	1	2	3	4	5	6	7					

# Section E

 $\overline{\mathbf{E}_{1}}$ . Please indicate the extent to which you agree with each of the following general statements. While answering, use the following response scale and circle the number corresponding to your level of agreement with each statement.

Not TrueSomewhat TrueVery true12345671Sometimes I tell lies if I have to1234562I never cover up my mistakes1234563There have been occasions when I have taken advantage of someone1234564I never swear12345665I sometimes try to get even rather than forgive and forget1234566I laway obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234568When I hear people talking privately, I avoid listening1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611When I was young, I sometimes stole things12345612I have never dropped litter on the speed limit12345613I sometimes drive faster than the speed limit12345614I never take tings that I don't tell onter people about123				0					<b>X</b> 7		
12345671Sometimes I tell lies if I have to1234562I never cover up my mistakes1234563There have been occasions when I have taken advantage of someone1234564I never swear1234565I sometimes try to get even rather than forgive and forget1234566I always obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234568When I har people talking privately, I avoid listening1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611I have never dropped litter on the street12345612I have face things that I don't tell other people about12345613I sometimes dive factor the movel or school even though I wasn't really sick12345614I never take nings that I don't tell other people about123456 <t< td=""><td>Not '</td><td>True</td><td></td><td>Somewhat</td><td></td><td></td><td></td><td></td><td>Very</td><td>true</td><td></td></t<>	Not '	True		Somewhat					Very	true	
1Sometimes I tell lies if I have to1234562I never cover up my mistakes1234563There have been occasions when I have taken advantage of someone1234564I never swear1234565I sometimes try to get even rather than forgive and forget1234566I always obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611When I was young, I sometimes stole things12345612I have never dropped litter on the street12345613I sometimes drive faster than the speed limit12345614I never take credit for other people's achievements12345615I have never damaged a library book or store merchandise without reporting it12345616I have never damaged a library book or store merchandise without reporting it	1	1 2	3		5		6		7		
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3There have been occasions when I have taken advantage of someone1234564I never swear1234565I sometimes try to get even rather than forgive and forget1234566I always obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234568When I hear people talking privately, I avoid listening1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611When I was young, I sometimes stole things12345612I have never dropped litter on the street12345613I sometimes drive faster than the speed limit12345614I never take things that I don't tell other people about12345615I have acte take take from work or school even though I wasn't really sick12345616I never take things that I don't tell other people about12345617I have never damaged a library book or					1						7
4I never swear1234565I sometimes try to get even rather than forgive and forget1234566I always obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234569I have never loop le talking privately, I avoid listening1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611When I was young, I sometimes stole things12345612I have never dropped litter on the street12345613I sometimes drive faster than the speed limit12345614I never take credit for other people's achievements12345615I have done things that I don't tell other people about12345616I never take things that J don't belong to me12345617I have and puict leave from work or school even though I wasn't really sick12345618I have never damaged a library book or store merchandise wi		· ·		advantage of someone	1	2	3	4	5	6	7
6I always obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234568When I hear people talking privately, I avoid listening1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611I always declare everything at Customs12345612I have never dropped litter on the street12345613I sometimes drive faster than the speed limit12345614I never take credit for other people's achievements12345615I have done things that I don't tell other people about12345616I never take things that don't belong to me12345617I have never damaged a library book or store merchandise without reporting it12345618I have some quite awful habits12345619I have some quite awful habits12345620I don't gossip about other people's business123<				U	1	2	3	4	5	6	7
6I always obey laws, even if I'm unlikely to get caught1234567I have said something bad about a friend behind his/her back1234568When I hear people talking privately, I avoid listening1234569I have received too much change from a salesperson without telling him or her12345610I always declare everything at Customs12345611When I was young, I sometimes stole things12345612I have never dropped litter on the street12345613I sometimes drive faster than the speed limit12345614I never take credit for other people's achievements12345615I have done things that I don't belong to me12345616I never take things that don't belong to me12345617I have taken sick leave from work or school even though I wasn't really reporting it12345618I have never damaged a library book or store merchandise without reporting it12345619I have some quite awful habits12345620I don't gossip about oth	5 I some	etimes try to get even	rather than forgive	and forget	1	2	3	4	5	6	7
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2. النوع		1. العمر
يرجى اختيار إجابة واحدة		يرجى اختيار إجابة واحدة
🗆 ذکر	55>- 45 🗆	🗖 أقل من 25
🗖 أنثى	🗖 55 وأكثر	35>- 25 □
		45>- 35 🗆
		<ol> <li>د. المؤهلات الدراسية</li> </ol>
		يرجى اختيار أعلى المؤهلات الدراسية
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		🗆 غيرذلك، يرجى تحديده:
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		□ CIA )زمالة معهد المراجعين الدا
) المعلمدين "ACCA" (	له جمعيه المحاسبين القانونيين	□ ACCA/FCCA )عضوية أو زما □ لا يوجد
		□ د يوجد □ □ مؤ هلات أخرى، يرجى تحديدها:
		5. الوظيفة الحالية
		يرجي إختيار إجابة واحدة
مدیر / مدیر أول		🗆 مراجع مبتدئ
عضو)Director(/ شريك		مراجع مساعد/ مراجع
غيرذلك، يرجى تحديده:		مراجع أول/ مدير مساعد
	ىة	<ol> <li>6. سنوات الخبرة في مجال المراجع يرجى اختيار إجابة واحدة</li> </ol>
	20>- 15 🗆	پربی ، <u>حیر</u> ببب و ، <u>حد</u>
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	□ 20 - <i>&lt;2</i> 2 □ 25 أو أكثر	15>- 10 []
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7. قواعد السلوك

هل لدى المكتب إرسَّادات للسلوك الأخلاقي مكتوبة، على سبيل المثال في شكل كتيب مُنفصل )تحت مسمى مثلاً قواعد السلوك الأخلاقي، قواعد السلوك المهني، الخ ) أوفي شكل آخر ) مثلاً دليل الموظف، أو جزءاً من كتيب قواعد ولوائح العمل بالمكتب....الخ(

🗆 نعم 📃 لا

القسم الثاني:

فيما يتعلق بالمكتب الذي تمارسون من خلاله المهنة، يرجى وضع دائرة على الرقم الذي يبين **مدى صحة** العبارات التالية **وليس** ما تفضل أن يكون الوضع عليه باستخدام المقياس التالي:

	حيح				يح إ تركي		- • •	غير متأك	خطأ إلى حد ما		أ تماماً	خط
	اماً	نم		يرة	ة كي	درج	ما			كبيرة		
	7	7			6		5	4	3	2	1	
7	6	5	4	3	2	1	بة الاعتبار الأكبر	ذلاقيات المهنب	بالقانون أو بميثاق الأ	مكتب، يكون للإلتزام ب	في هذا ال	1
7	6	5	4	3	2	1	يرأ	مع اهتماماً كب	المصلحة العامة للمجت	ملون في هذا المكتب ب	يهتم العاه	2
7	6	5	4	3	2	1	أي قانون	بالف أو ينتهك	أي قرار مراعاة ألا يذ	عتبار الأول عند إتخاذ	يكون الإ	3
7	6	5	4	3	2	1		هتماماً بالغاً	مصلحتهم الشخصية ا	ملون في هذا المكتب ب	يهتم العاه	4
7	6	5	4	3	2	1	عقيق أرباح للمكتب	ساهمته في تد	اسة أي قرار المدى م	بشکل رئیسی عند در	يتم النظر	5
7	6	5	4	3	2	1	بة	لحهم الشخصب	غالبأ على تحقيق مصا	ملون في هذا المكتب	يعمل العا	6
7	6	5	4	3	2	1	هم الخارجي	ة تجاه مجتمع	ساس كبير بالمسئولي	للين في آهذا المكتب إم	لدى العام	7
7	6	5	4	3	2	1	· · · ·			مل دون المستوى فقط		8
7	6	5	4	3	2	1		امة للمجتمع	ما يحقق المصلحة الع	قع منك أن تفعل دائماً	من المتو	9
7	6	5	4	3	2	1	نية أو المهنية	المعايير القانو	لمين الالتزام الصارم با	مُكتب، يُتوقع من العام	في هذا ال	10
7	6	5	4	3	2	1	Ļ	ل مصالح المكن	، كل ما بوسعهم لتعزيز	، العاملين بالمكتب فعل	يُتوقع من	11
7	6	5	4	3	2	1	ي هذا المكتب	غل الرئيسي فر	امة للمجتمع هو الشاغ	ات على المصلحة الع	أثر القرار	12
7	6	5	4	3	2	1		•	~ ~ 4	ملون بمصالح المكتب		13
7	6	5	4	3	2	1	ق أي اعتبارات أخرى	ويضعونها فو				14
7	6	5	4	3	2	1	فصية للعاملين	و الآداب الشم	ل لتطبيق الأخلاقيات أ	مكتب، ليس ً هناك مجا	في هذا ال	15
7	6	5	4	3	2	1	ووضعها فوق أي اعتبارات					16

							<b>الثالث:</b> جى تحديد مدى موافقتك على كل عبارة من العبارات التالية. تمثل كل عبارة رأياً شائعاً ولا توجا بتمون بالتعرف على رأيك تجاه هذه القضايا. أثناء الإجابة، استخدم المقياس التالي بوضع دائرة وافقتك على كل عبارة:	<b>1.</b> ير <b>ا</b> إننا مه
	_	مواف تمام			فق	موا	غیر موافق غیر موافق خیر موافق إلى غیر متأکد موافق إلى حد إطلاقاً حد ما	
		7				6	5 4 3 2 1	
7	6	5	4	3	2	1	ينبغي أن يتأكد الناس أن أفعالهم لن تضر الآخرين عمداً حتى ولو لدرجة بسيطة	1
7	6	5	4	3	2	1	لا ينبغي السماح بتعريض الآخرين للمخاطر بغض النظر عن مدى صغر تلك المخاطر	2
7	6	5	4	3	2	1	يعد دائماً من الخطأ إحتمالية وقوع الضرر على الغير، بغض النظر عن المنافع التي سيتم الحصول عليها	3
7	6	5	4	3	2	1	ينبغي على الفرد ألا يلحق الضرر بشخص آخر معنوياً أو مادياً	4
7	6	5	4	3	2	1	ينبغي على الفرد ألا يقوم بأي فعل من شأنه تهديد كرامة أو رفاهية فرد آخر بأي شكل من الأشكال	5
7	6	5	4	3	2	1	إذا كان هناك فعل قد يُلحق الضرر بشخص برئ، فينبغي عدم القيام به	6
7	6	5	4	3	2	1	إن تقرير فعل شيء من عدمه، بناء على الموازنة ما بين العواقب الإيجابية والسلبية المترتبة عليه، يُعد سلوكاً غير أخلاقي	7
7	6	5	4	3	2	1	ينبغي أن تكون كرامة الناس ورفاهيتهم أهم ما يشغل أي مجتمع	8
7	6	5	4	3	2	1	التضحية برفاهية الآخرين لا يمكن ان تكون شيئاً ضرورياً	9
7	6	5	4	3	2	1	السلوكيات الأخلاقية هي تلك الأفعال التي تتشابه إلى حد كبير مع مفاهيم السلوك المثالي	10
7	6	5	4	3	2	1	لا توجد مبادئ أخلاقية من الأهمية بحيث لا يجوز إغفالها في أي ميثاق للأخلاق	11
7	6	5	4	3	2	1	ما هو أخلاقي يختلف بإختلاف الموقف والمجتمع	12
7	6	5	4	3	2	1	ينبغي النظر إلى المعايير الأخلاقية على أنها فردية؛ فما يراه الفرد أخلاقياً يمكن أن يراه شخص آخر غير أخلاقي	13
7	6	5	4	3	2	1	لا يمكن مقارنة الأنواع المختلفة من الأخلاقيات من حيث الصواب والخطأ	14
7	6	5	4	3	2	1	التساؤلات حول ما هو أخلاقي بوجه عام، لا يمكن الإجابة عليها. حيث يعد ما يعتبر أخلاقي أو غير أخلاقي أمراً يعتمد على الشخص نفسه.	15
7	6	5	4	3	2	1	إن المعايير الأخلاقية هي مجرد قواعد شخصية توضح للفرد كيف ينبغي أن يتصرف، ولكنها لا تُطبق عند الحكم على الآخرين	16
7	6	5	4	3	2	1	الاعتبارات الأخلاقية في العلاقات المتبادلة بين الأفراد معقدة بالدرجة التي تجعل من الواجب أن يُسمح لكل فرد بصياغة ميثاق الأخلاق الخاص به	17
7	6	5	4	3	2	1	إن التقنين الصارم للمواقف الأخلاقية بشكل يمنع أنواع معينة من التصرفات قد يعيق قيام العلاقات البشرية والتأقام بشكل أفضل	18
7	6	5	4	3	2	1	لا يمكن صياغة قاعدة محددة تتعلق بالكذب؛ إن السماح بالكذب أو عدم السماح به يتوقف كلياً على الموقف الذي يتعرض له الفرد	19
7	6	5	4	3	2	1	ا عتبار الكذب سلوكاً أخلاقياً أو غير أخلاقي يعتمد على الظروف المحيطة بالسلوك نفسه	20
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									ىلى كل عبارة	ن مدی موافقتك ع	، الذي يعبر ع <u>و</u>	ل الرقد
(	وافق	٩		فق	موا		موافق إلى حد	غير متأكد	غير موافق إلى	غير موافق	ير موافق	ċ
	ماماً	ت					ما		حد ما		إطلاقاً	
	7				6		5	4	3	2	1	
7	6	5	4	3	2	1			سورتي أمام الآخرين			1
7	6				2	1				عملي في مهنة المر		2
7	6	5	4	3	2	1			فة	ي في مهنة المراج	أنا فخور بعما	3
7	6	5	4	3	2	1				، کمراجع	أنا أكره عملي	4
7	6	5	4	3	2	1			عة	ي في مهنة المراج	أنا لا أجد نفس	5
7	6	5	4	3	2	1				مهنة المراجعة	أنا متحمس له	6
7	6	5	4	ર	2	1	في تلك المهنة لفترة	جب عليه أن يظل ف	لتدريب في مهنة ما، ي			7
'	0	5	-	5	2	-					معقولة من ال	'
7	6	5	4	3	2	1				لتزام بالبقاء في مه		8
7	6	5	4	3	2	1			في مهنة المراجعة	*		9
7	6	5	4	3	2	1	صلحتي	تي لو كان ذلك في م	هنة المراجعة الآن، حا			10
7	6	5	4	3	2	1			لة المراجعة	بالذنب إن تركت مها	سوف أشعر ب	11
7	6	5	4	3	2	1			ئىعر بالولاء لھا	لة المراجعة لأنني أن	أعمل في مهذ	12

**القسم الرابع:** في هذا القسم يتم عرض <u>أربعة</u> سيناريو هات افتر اضية فيما يتعلق بمر اجعة القوائم المالية. يرجى تحديد إجابتك على كل واحد منها باستخدام المقياس المبين أسفل كل سيناريو.

# السيناريو الأول

أنت أحمد سالم ووظيفتك مراجع اول. عمرو الرويني هو الشريك المسئول، وتقومان معاً بمراجعة القوائم المالية عن عام 2013 لمحلات الجوادي، وهي شركة خاصة من بين عدة شركات يمتلكها علي الجوادي، الذي يعد من كبار عملاء المكتب في مجال المراجعة والضرائب. يتفاوض الجوادي في الوقت الحالي على بيع محلات الجوادي، وقد تم الاتفاق على سعر بيع مبدئي ولكن يتوقف السعر النهائي على نتيجة المراجعة لصحة صافي القيمة المحققة لحسابات المدينين والمخزون. يبلغ إجمالي الأصول المتداولة لمحلات الجوادي معلى نتيجة المراجعة لصحة صافي القيمة المحققة لحسابات المدينين والمخزون. يبلغ إجمالي الأصول توب انتهاء المراجعة، كان عمرو الشريك المسئول على خلاف مع الجوادي بشأن مدى ملائمة مخصص الديون المشكوك في قرب انتهاء المراجعة، كان عمرو الشريك المسئول على خلاف مع الجوادي بشأن مدى ملائمة مخصص الديون المشكوك في تحصيلها. يرى عمرو، بناءً على ما حققته محلات الجوادي من متحصلات في أعوام سابقة، أنه يجب زيادة قيمة المحصص بمبلغ يؤثر ذلك تأثيراً كبيراً على الرغم من حدوث بعض التحسن في الظروف الاقتصادية للسوق، يشعر عمرو أنه من غير المحصل ان يؤثر ذلك تأثيراً كبيراً على هن حدوث بعض التحسن في الظروف الاقتصادية للسوق، يشعر عمرو أنه من غير المحتمل أن

التصرف: علمت فيما بعد أنه نظراً لأن الجوادي عميل هام للمكتب، وافق عمرو الرويني الشريك على تقدير العميل للمخصص بقيمة 100,000 جنيهاً وليس 500,000 جنيهاً، وقد قدم تقرير غير متحفظ (نظيف) عن القوائم المالية.

برجاء تقييم تصرف عمرو عن طريق وضع دائرة على درجة قبولك أو اختلافك مع كل عبارة من العبارات التالية وفقاً للمقياس التالي:

موافق تماماً	موافق	موافق إلى حد ما	غیر متأکد	غير موافق إلى حد ما	غير موافق	غير موافق إطلاقاً
7	6	5	4	3	2	1

7	6	5	4	3	2	1	يتضمن الموقف المبين أعلاه مشكلة أخلاقية	1
7	6	5	4	3	2	1	لم يكن ينبغي على عمرو قبول المخصص بقيمة 100,000 جنيهاً	2
			4				كنت سأفعل ما فعله عمرو في السيناريو أعلاه	3
7	6	5	4	3	2	1	سيكون الضرر العام (إن وجد) نتيجة لتصرف عمرو ضئيلاً جداً	4
7	6	5	4	3	2	1	سيقع ضرر كبير على عمرو نفسه نتيجة هذا التصرف	5
7	6	5	4	3	2	1	سيقع ضرر كبير على مكتب المراجعة الذي يعمل به عمرو نتيجة هذا التصرف	6
7	6	5	4	3	2	1	سيقع ضرر كبير على أصحاب المصالح في شركة الجوادي نتيجة هذا التصرف	7
7	6	5	4	3	2	1	رؤساؤك سيتفقون على أن تصرف عمر وكان خاطئاً	8
7	6	5	4	3	2	1	معظم المراجعين في نفس مستواك الوظيفي في مكتبكم سيتفقون على أن تصرف عمرو كان خاطئاً	9
7	6	5	4	3	2	1	معظم العاملين في مهنة المراجعة بشكل عام سيتفقون على أن تصرف عمرو كان خاطئاً	10
7	6	5	4	3	2	1	لن يسبب تصرف عمرو أي ضرر في المستقبل القريب	11
7	6	5	4	3	2	1	لن يسبب تصرف عمرو أي ضرر على المدى البعيد	12
7	6	5	4	3	2	1	سوف يضر تصرف عمرو عدداً قليلاً من الناس، إن وجد	13
7	6	5	4	3	2	1	سوف يكون تصرف عمرو خاطئاً إذا كان صديقاً شخصياً للشخص/ الأشخاص الذين لحق بهم الضرر	14
7	6	5	4	3	2	1	هناك احتمال ضئيل جداً أن تصرف عمرو سوف يوقع ضرراً حقيقياً	15

السيناريو الثانى

أنت يحيى هاشم، مراجع أول. تم تكليفك مع حازم مجدي، وهو مراجع أول، بمراجعة القوائم المالية لشركة النور. هذه هي السنة الثانية التي يقوم فيها حازم بمهام المراجعة لشركة النور، ولم يكن هناك أية مشاكل في مراجعة السنة السابقة. لم تشرنتائج فحص نظم الرقابة الداخلية إلى أي شيء يدعو للقلق. يخضع أعضاء فريق المراجعة لضغط كبير من حيث الوقت المطلوب فيه الانتهاء من مهام المراجعة لهذا العميل. تسبب حازم في مشكلات سابقة لأنه لم يتمكن من إنجاز مهام المراجعة في الوقت المطلوب فيه الانتهاء تقييم ضعيف لهذا السبب. يرى حازم أنه من المهم أن ينتهي من أعمال المراجعة في الوقت المحدد لذلك، لكي يحصل على تقييم جيد، إلا إذا حدث ظروف إستثنائية قد توثر على أداء مهمته.

وفقاً لبرنامج المراجعة لشركة النور، كان هناك اختبار فحص على حازم أن يقوم فيه باختيار 10 بنود من المخزون من قوائم الجرد لكي يتأكد من صحة تقييمها عن طريق مقارنة أسعار التكلفة الواردة بقوائم الجرد بالأسعار الواردة في فواتير الموردين. لدى الشركة عدد كبير من بنود المخزون ذات أرقام مسلسلة مختلفة ويمكن أن تستغرق عملية تحديد الفواتير ومقارنة الأسعار وقتاً طويلاً.

التصرف: في سبيل توفير الوقت، لم يجر حازم هذا الاختبار على الإطلاق ولكنه وقع في برنامج المراجعة بما يفيد إنجازه.

برجاء تقييم تصرف حازم عن طريق وضع دائرة على درجة قبولك أو اختلافك مع كل عبارة من العبارات التالية وفقاً للمقياس التالي:

	ر افق ساماً				رافق	مو	موافق إلى حد ما	غیر متأکد	غير موافق إلى حد ما	غير موافق		ė
	7				6			4	3	2	1	
					2				شكلة أخلاقية	قف المبين أعلاه م	يتضمن المو	1
7	6	5	4	3	2	1		ما يفيد إنجازه	ع على هذا الاختبار ب	، على حازم التوق <u>ب</u>	لم يكن ينبغي	2
					2				لسيناريو أعلاه	ما فعله حازم في ا	كنت سأفعل	3
7	6	5	4	3	2	1		م ضئيلاً جداً	) نتيجة لتصرف حاز	رر العام (إن وجد)	سيكون الضر	4
7	6	5	4	3	2	1		ف	سه نتيجة هذا التصر	کبیر علی حازم نف	سيقع ضرر	5
7	6	5	4	3	2	1	هذا التصرف	به حازم نتيجة	لمراجعة الذي يعمل	كبير على مكتب ال	سيقع ضرر	6
7	6	5	4	3	2	1	ا التصرف	النور نتيجة هذ	، المصالح في شركة	كبير على أصحاب	سيقع ضرر	7
7	6	5	4	3	2	1		ڵ	رف حازم كأن خاط	يتفقون على أن تصد	ر ؤساؤك سي	8
7	6	5	4	3	2	1	على أن تصرف حازم	كتبكم سيتفقون	تواك الوظيفي في م	جعين في نفس مس	معظم المرا. كان خاطئاً	9
7	6	5	4	3	2	1	رف حازم کان خاطئاً	ِن على أن تص <sup>ر</sup>	معة بشكل عام سيتفقو	بن في مهنة المراج	معظم العامل	10
					2			يب	رر في المستقبل القر	سرف حازم أي ض	لن يسبب تص	11
7	6	5	4	3	2	1		د	رر علَّى المدى البعي	سرف حازم أي ض	لن يسبب تص	12
7	6	5	4	3	2	1		) وجد	داً قليلاً من الناس، إن	تصرف حازم عدد	سوف يضر	13
7	6	5	4	3	2	1	ر/ الأشخاص الذين لحق			تصرف حازم خاه		14
7	6	5	4	3	2	1	ڹۑٲ	قع ضرراً حقية	سرف حازم سوف يو	) ضئيل جداً أن تص	هناك احتمال	15

السيناريو الثالث

له.

أنت أحمد الشربيني مراجع أول. تم تكليفك مع طارق ياسين، وهو مدير المراجعة، بمراجعة القوائم المالية لشركة المصريين للسيارات، وهي شركة عامة. قام مكتبكم بإجراء أعمال مراجعة لهذه الشركة طوال الأربع سنوات الماضية، تم خلالها إقامة علاقة عمل جيدة مع شركة المصريين. وبينما هذه هي السنة الأولى التي يتم تكليفك فيها بمهام مراجعة لهذه الشركة، فقد قام طارق بعمليات مراجعة للشركة عن الثلاث سنوات الماضية، وقد حاز على إعجاب العميل. سوف يترك المراقب المالي الحالي بالشركة العمل قريباً. وبينما كنت تستفسر عن بعض الأمور من مساعد المراقب المالي، فوجئت بأن طارق، مدير المراجعة، قد تلقى عرضاً لشغل وظيفة المراقب المالي بشركة المصريين، كما علمت أيضاً أنه لم يقرر بعد ما إذا كان سيقبل الوظيفة أم لا. التصرف: استمر طارق ياسين في أداء دوره في مراجعة شركة المصريين دون إخطار الشريك المسئول بعرض الوظيفة المقدم

برجاء تقييم تصرف طارق عن طريق وضع دائرة على درجة قبولك أو اختلافك مع كل عبارة من العبارات التالية وفقاً للمقياس التالي:

												.e
Ċ	ىوافۇ	٥		L	لو افق	٥	موافق إلى حد	غير متأكد	غير موافق إلى	غير موافق	غير موافق	2
	نماما	د					ما		حد ما		إطلاقاً	
	7				6		5	4	3	2	1	
					2				شكلة أخلاقية	ف المبين أعلاه م	يتضمن الموقف	1
7	6	5	4	3	2	1		ي هذه المراجعة	مرار في أداء دوره ف	على طارق الاست	لم يكن ينبغي	2
7	6	5	4	3	2	1			السيناريو أعلاه	ا فعله طارق في ا	كنت سأفعل م	3
7	6	5	4	3	2	1		ن ضئيلاً جداً	نتيجة لتصرف طارو	ر العام (إن وجدً)	سيكون الضر	4
7	6	5	4	3	2	1		ف	فسه نتيجة هذا التصر	بیر علی طارق ن	سيقع ضرر ک	5
7	6	5	4	3	2	1	ا التصرف	<sup>ہ</sup> طارق نتیجة ه	مراجعة الذي يعمل با	بير على مكتب ال	سيقع ضرر ك	6
7	6	5	4	3	2	1	هذا التصرف	المصريين نتيجة	المصالح في شركة ا	بير على أصحاب	سيقع ضرر ک	7
7	6	5	4	3	2	1		2	رف طارق کان خاطه			8
7	6	5	4	3	2	1	لى أن تصرف طارق	ئتبكم سيتفقون عا	تواك الوظيفي في مك	عين في نفس مسا	معظم المراج كان خاطئاً	9
7	6	5	4	3	2	1	ں طارق کان خاطئاً	ن على أن تصر ف	مة بشكل عام سيتفقور	) في مهنة المراج	معظم العاملين	10
7	6	5	4	3	2	1		بب	ىرر في المستقبل القر	رف طارق أي ض	لن يسبب تصر	11
7	6	5	4	3	2	1			ىرر علّى المدى البعيد			12
7	6	5	4	3	2	1		، وجد	داً قليلاً من الناس، إن	صرف طارق عد	سوف يضر ت	13
7	6	5	4	3	2	1	الأشخاص الذين لحق	2	2 2			14
7	6	5	4	3	2	1		قع ضرراً حقيقياً	ىرف طارق سوف يو	ضئيل جداً أن تص		15

السيناريو الرابع

أنت إحسان عبد الفتاح، مراجع أول، وقد تم تكليفك مع هبة هلال، مدير المراجعة، بمراجعة حسابات الصياد وشركاه وهي شركة خاصة. حدث انخفاض كبير في الحصة السوقية لشركة الصياد، وقد علمت هبة أن شركة الصياد سوف تشهر إفلاسها قريباً. هناك عميل آخر لدى هبة وهو شركة الشريف. أثناء مراجعة حسابات المدينين الخاصة بشركة الشريف، وجدت هبة أن شركة الصياد وشركاه مدينة لشركة الشريف بمبلغ 200,000 جنيهاً. وحيث أن هذا المبلغ يمثل 10% من مقبوضات شركة الشريف، فيمان فيمكن أن يتعرض المركز المالي لشركة الشريف للخطر نتيجة إفلاس شركة الصياد وهو ما قد يؤثر على رأيها فيما يؤثر على مراجعة فيمان الشريف الشريف قادرة على الاستمرارية.

التصرف: تخطر هبة العميل، شركة الشريف، بالإفلاس الوشيك لشركة الصياد.

برجاء تقييم تصرف هبة عن طريق وضع دائرة على درجة قبولك أو اختلافك مع كل عبارة من العبارات التالية وفقاً للمقياس التالي:

		_		_		_	<b>8</b> 4 4	4 <sup>£</sup> .	<b>V</b> 11			
	افق	مو			افق	مو	موافق إلى حد	غير متأكد	غير موافق إلى	غير موافق	پر موافِق	iċ
	اماً	تم					ما		حد ما		إطلاقا	
	7	7			6	5	5	4	3	2	1	
7	6	5	4	3	2	1			مشكلة أخلاقية	وقف المبين أعلاه	يتضمن المو	1
	6							بع شركة الصياد	ِ شركة الشريف بوض			2
	6							ع سر – ، ـــــ	,	ي ھي بنج ڀِ <u>ر</u> ر		3
	6							الم الم	لشياريو (عارة) .) نتيجة لتصرف هبة	**		4
	6					1			سها نتيجة هذا التصر		-	5
	6					1			المراجعة الذي تعمل			6
7	6	5	4	3	2	1	هذا التصرف	الصياد نتيجة	ب المصالح في شركة	ِ کبیر علی أصحاد	سيقع ضرر	7
7	6	5	4	3	2	1			سرف هبة كان خاطئاً	يتفقون على أن تم	رۇساۇك س	8
7	6	5	4	3	2	1	لی أن تصرف هبة کان	تبكم سيتفقون ع	تواك الوظيفي في مك	جعين في نفس مس	معظم المرا خاطئاً	9
7	6	5	4	3	2	1	ف هبة كان خاطئاً	ن على أن تصر	جعة بشكل عام سيتفقو	لين في مهنة المرا.	معظم العاما	10
7	6	5	4	3	2	1			ر في المستقبل القرير			11
7	6	5	4	3	2	1			ر على المدى البعيد			12
7	6	5	4	3	2	1		و جد	اً قليلاً من الناس، إن و	**		13
7	6	5	4	3	2	1	<i>)</i> / الأشخاص الذين لحق		4	) تصرف هبة خاط		14
7	6	5	4	3	2	1		ع ضرراً حقيقياً	سرف هبة سوف يوق	ل ضئيل جداً أن تم	هناك احتما	15

										الخامس:	
حول	ائرة	نع د	بوض	الي ب	ل الت	بياس	ارات العامة التالية. أثناء الإجابة، استخدم الم				
	_		_	_	_			کل عبارة	ن مدى موافقتك على	4.	
i	حيح باماً						صحیح إلى حد			یر صحیح	,Ė
							ما			إطلاقاً	
	7				6		5 4	3	2	1	
7	6	5	1	3	$\mathbf{r}$	1		. 5	اناً إذا اضُطررت لذلا	أكذب أحد	1
7				3		1			ان إذا اصطررت لدا بدأ على أخطائي		2
	6					1		(ل) شخص آخر	بدر على الحصائي عض المواقف باستغا		2
	6					1			له أبداً بألفاظ بذيئة	<b></b>	4
7	6			3	2	1	تسبی ہے	من أن أسامح و أ	ول الأخذ بالثأر بدلاً ه		5
7	6	5	4	3	2	1			ی با بالقوانین حتی لو ل		6
7	6	5	4	3	2	1	<del>.</del> '		سيئاً عن صديق لي د		7
7	6	5	4	3	2	1	ستماع لهم	سراً، أتجنب الاس	ں أشخاصاً يتحدثون <sup>ل</sup>	عندما أري	8
7	6	-		3	2	1	إنبههُ لذلك		لقيت الكثير من النقو	2	9
	6			3		1		<u> </u>	يكل شيء لدى الجمار		10
7	6	5		3	2	1		. –	ت صغيرا،ً كنت أسرو		11
7		5		3		1			َ القاذور ات في الشار الما الما التي الشار		12
7	6 6			3	2	1			بياناً السرعة المقررة بدأ انبيانات الآنييين		13
7	6	5	4	<u> </u>	2	1		<b></b>	بدأ إنجازات الأخرين اءً لا أطلع الآخرين ا		14 15
7		5		3		1			ء لا الطلع الأخرين - أ الأشياء التي لا تخص		16
7	6			3	2	1	حتى لو لم أكن مريضاً فعلاً				17
	6			3	2	1	دون إبلاغ المسئولين عن ذلك				18
7	6	5	4	3	2	1		ý, ř	، العادات السيئة		19
7	6	5	4	3	2	1		Ċ	ر فيما يخص الآخرير		20
							لم يتناولها، وقد تر غبون في تناولها:	ون أن الاستبيان	ة التالية لأية نقاط تر	رك المساح	2. تم ت
•••••	•••••	••••	••••	•••••	•••••	••••		•••••		•••••	•••••
•••••	•••••	••••	••••	•••••	, <b></b>	••••		•••••		•••••	•••••
•••••	•••••	••••	••••	•••••		••••		•••••	••••••	•••••	•••••
•••••	•••••	••••	••••	• • • • • •		••••		••••••		•••••	•••••
;	کتر	N	د که			• •	 ث، فسوف يسرنا إرسالها لكم إذا قمتم باستكم	بة من نتائح الرجا	ini la la sall	ر غرتکه ف	1-3
رىسى		- <u>-</u> '	يدلم	- بر	<u> </u>	- 0	ے، سوے پسرے ارسانیہ سم اِدا کسم باستہ	ب من حالي (ببط	ې ،سیموں ملق سل		ر. <u>مر</u> أدنا
										۔ الإلكتروني:	
							ici i ti to cei	* 1 .1** -			
							شكركم على المشاركة	وحتاما د			
							343				

Variables <sup>1</sup>	Idealism	Relativism	APC	NPC	EI	EL	BC	PC	SP A	AH <sup>A</sup>	SP <sup>B</sup>	AH <sup>B</sup>	SP <sup>C</sup>	AH <sup>C</sup>	SP D	AH <sup>D</sup>	SDRB
Idealism	1.00																
Relativism	170**	1.00															
APC	.282**	158**	1.00														
NPC	.070	001	.546**	1.00													
EI	019	.067	334**	417**	1.00												
EL	.104*	.073	090	226**	.303**	1.00											
BC	.228**	.007	.386**	.472**	511**	106*	1.00										
PC	.377**	059*	.424**	.345**	390**	085	.638**	1.00									
SP A	.174**	.080	.155**	.286**	221**	110*	.369**	.280**	1.00								
AH <sup>A</sup>	.183**	146**	.211**	.120*	084	158**	.206**	.183**	.444**	1.00							
SP <sup>B</sup>	.225**	228**	.261**	.003	.106*	.138**	033	.114*	.047	.031	1.00						
AH <sup>B</sup>	.153**	.175**	.205**	.059	066	195**	.216**	.219**	.151**	.433**	.130*	1.00					
SP <sup>C</sup>	.088	124*	.188**	.157**	059	036	.119*	.123*	.034	107*	.528**	022	1.00				
AH <sup>C</sup>	.090	083	.176**	.182**	236	281**	.327**	.210**	.214**	.314**	.040	.380**	.313**	1.00			
SP D	.216**	027	.025	029	.045	.263**	063	.103*	.041	187**	.415**	069	.422**	087	1.00		
AH <sup>D</sup>	.074	.021	.041	.022	195**	.015	.159**	.240**	.135**	.110*	087	.261**	072	.247**	.331**	1.00	
SDRB	.242**	111*	.259**	.119*	193**	084	.247**	.309**	.156**	.292**	.208**	.278**	.032	.146**	.012	.112*	1.00

# **Appendix C: Correlation Results of Independent Continuous Variables**

<sup>1</sup>APC: Affective Professional Commitment; NPC: Normative Professional commitment; EI: Egoistic/ Individual; EL: Egoistic/ Local; BC: Benevolent/Cosmopolitan; PC: Principle/Cosmopolitan; SP: Social Pressure; AH: Actual Harm; SDRB: Social Desirability Response Bias A: Scenario A; B: Scenario B; C: Scenario C; D: Scenario D

\* Correlation is significant at the 0.05 level (2-tailed); \*\* Correlation is significant at the 0.01 level (2-tailed)

		Ethical Re	cognition			Ethical	Judgment		Ethical Intention				
Variable	А	В	С	D	А	В	С	D	А	В	С	D	
Id	.174**	.220**	.027	.140**	.168**	.164**	.043	.196**	.125*	.241**	.072	.161**	
RE	053	245**	039	067	060	084	030	052	242**	262**	091	249**	
APC	.010	.117*	.195**	.026	.114*	.100	.226**	.035	.210**	.289**	.234**	.077	
NPC	038	.015	.245**	.092	.091	.066	.288**	059	.162**	.167**	.244**	017	
EI	.148**	.013	195**	019	094	.029	239**	064	198**	222**	389**	083	
EL	.298**	049	180**	.173**	.036	899	168**	.257**	197**	210**	249**	.108*	
BC	050	.064	.268**	.088	.148**	.017	.289**	081	.243**	.220**	.376**	.047	
PC	.004	.143**	.252**	.172**	.161**	.114*	.277**	.082	.243**	.345**	.320**	.165**	
SP	.367**	.260**	.472**	.488**	.509**	.205**	.421**	.778**	.435**	.335**	.414**	.331**	
AH	.210**	.351**	.417**	.416**	.466**	.297**	.404**	.315**	.423**	.411**	.498**	.353**	
SDRB	016	.212**	.166**	.008	.156**	.220**	.125*	070	.141**	.302**	.200**	.111*	
A Scenari	A Scenario A; B Scenario B; C Scenario C; D Scenario D; APC: Affective Professional Commitment; NPC: Normative Professional commitment; EI:												

# Appendix D: Correlations of Continuous Independent and Dependent Variables

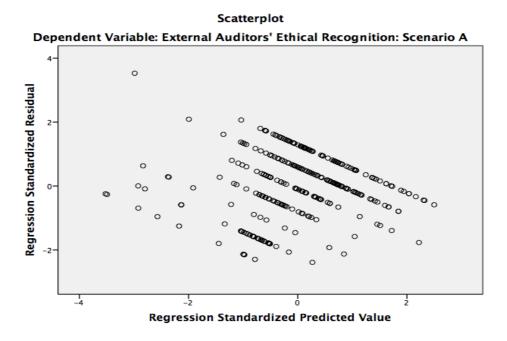
Egoistic/ Individual; EL: Egoistic/Local; BC: Benevolent/Cosmopolitan; PC: Principle/Cosmopolitan; SP: Social Pressure; AH: Actual Harm; SDRB (IM): Social Desirability Response Bias (Impression Management); ID: Idealism, RE: Relativism

\* Correlation is significant at the 0.05 level (2-tailed); \*\* Correlation is significant at the 0.01 level (2-tailed)

# Appendix E: Multiple Regression Results of Tolerance, VIF, and Durbin-Watson

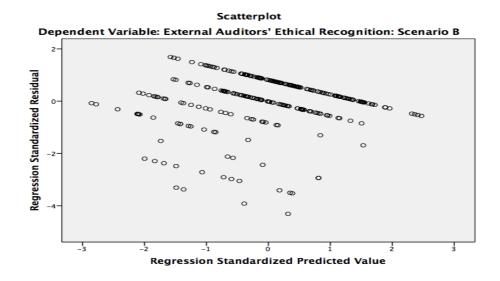
EDM Stages & Scenarios	Tolerance (Range)	VIF (Range)	Durbin- Watson						
Ethical Recognition									
Scenario A	(0.488-0.973)	(1.028-2.047)	1.896						
Scenario B	(0.509-0.977)	(1.023-1.964)	1.851						
Scenario C	(0.472-0.976)	(1.025-2.118)	1.740						
Scenario D	(0.492-0.974)	(1.026-2.033)	1.927						
Ethical Judgment									
Scenario A	(0.448-0.973)	(1.028-2.050)	1.882						
Scenario B	(0.598-0.877)	(1.023-1.964)	1.840						
Scenario C	(0.472-0.976)	(1.025-2.118)	2.154						
Scenario D	(0.492-0.974)	(1.026-2.033)	1.645						
Ethical Intention									
Scenario A	(0.488-0.973)	(1.028-2.050)	1.770						
Scenario B	(0.511-0.975)	(1.026-1.957)	1.879						
Scenario C	(0.472-0.976)	(1.024-2.118)	1.992						
Scenario D	(0.492-0.974)	(1.026-2.033)	1.845						

# **Appendix F: Scatterplots (Dependent Variables)**

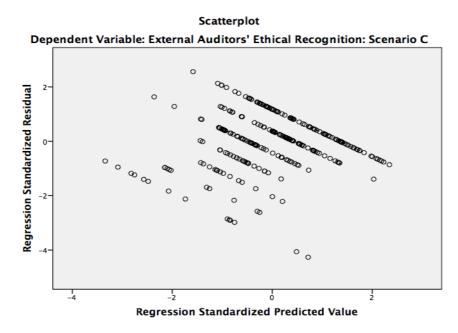


**Ethical Recognition: Scenario A** 

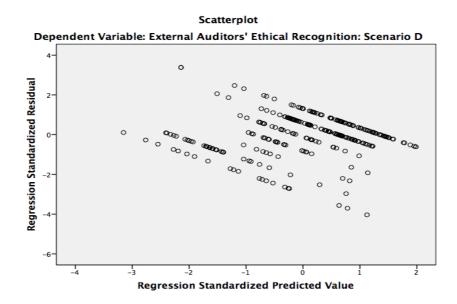
**Ethical Recognition: Scenario B** 



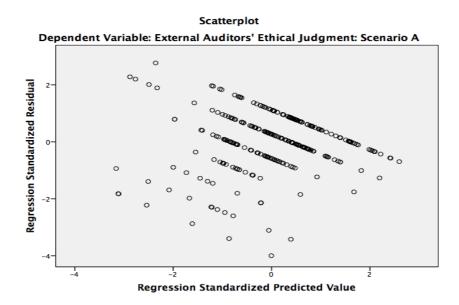
#### Ethical Recognition: Scenario C



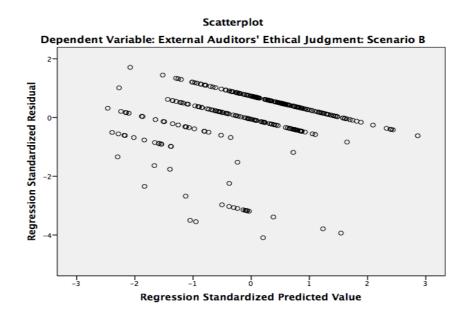
# **Ethical Recognition: Scenario D**



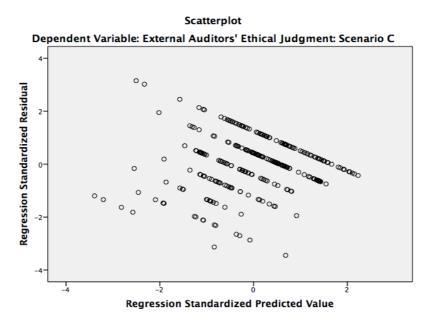
# Ethical Judgment: Scenario A



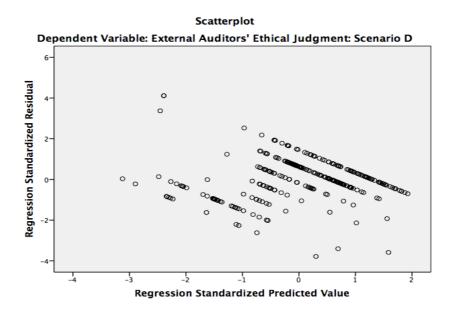
# **Ethical Judgment: Scenario B**



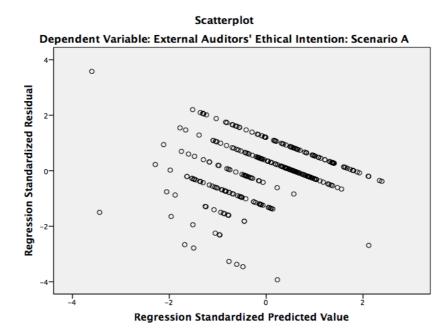
# Ethical Judgment: Scenario C



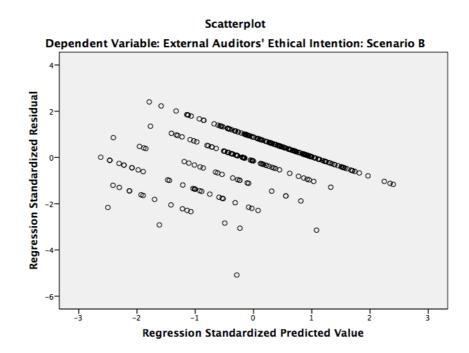
# Ethical Judgment: Scenario D



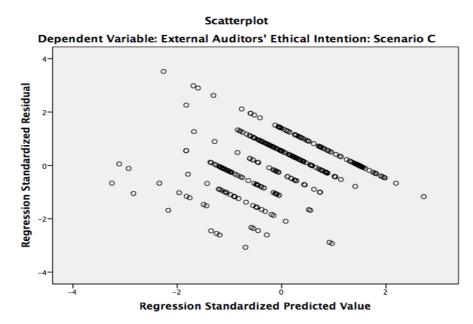
# **Ethical Intention: Scenario A**



Ethical Intention: Scenario B



# **Ethical Intention: Scenario C**



#### **Ethical Intention: Scenario D**

