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Using SEM-PLS and fuzzy logic to determine the influence of uncertainty avoidance and accreditation cost on strategic intention

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Gaining accreditation from international bodies will improve university reputation, image and the scientific research quality. As the observation from scholars, the Jordanian private universities seems to have an ambiguity in the strategic intention towards international accreditation also Jordanian HEIs were not aware of any suitable strategy formulation and implementation framework, which could be suitable for their peculiar environment. The objective of this study is to explore what factors may influence the strategic intention to go for international accreditation within the perspective of Jordanian private universities. The researcher hypothesis that uncertainty avoidance and accreditation cost has a significant relationship with strategic intention to go for international accreditation. A survey was conducted on population of 593 personals in 17 Jordanian Private Universities. Data were collected via questionnaire from University president, vice president, Dean, head of departments and professors. WarpPLS version 3.0 structural equation modeling was used to analyze the data and the relationships and effects among the variables based on hypotheses. In addition, fuzzy logic employed for model simulation regarding the relationship among the constructs. In particular, the research will interpret the models based on four conditions, which capture alternative interpretations of the dependencies, combining quantitative and qualitative information.

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keywords: Structural Equation Modeling, Partial Least Squares, Social Cognitive Theory, Strategic Intention.

1 Introduction

In the twenty-first century, quality has become a critical subject in higher education institutions (HEIs) all over the world. It has gained an essential role for many reasons, including expansion, variation, privatization of higher education systems, rising demands on higher education, and issues surrounding organizational resources. Srikanthan and Dalrymple (2003), Becket and Brookes (2005), Sallis (2014) and Hou (2014) share the common viewpoint that quality is becoming a more convoluted issue, and higher education is increasingly pressured by environmental factors. Although progress has been made through research and argument and a significant amount of studies in the area have been conducted, there is still no agreement on how to achieve quality in higher education or at least reach a satisfactory level of quality in higher education. To sustain and improve the level of quality in the education field, Chen et al. (2014) and Knight (2015) argued that HEIs should adopt a systematic quality assurance program to improve their quality in education sector. Quality assurance (QA) has been used in higher education only over the past decade. **According to UNESCO (2008, p. 2)**, quality assurance in the educational context can be defined as a “systematic process of assessing and verifying inputs and outputs against standardized benchmarks of quality to maintain and enhance quality, ensure greater accountability and facilitate harmonization of standards across academic programs, institutions, and systems”. According to Antony (2005) and Altbach (2015) accreditation is one of the contemporary approaches for effective quality assurance systems in higher education. In this approach, quality assurance is guaranteed by the test of mission and goal achievement; ranking and ratings, reputation, and program reviews, i.e., the test of peer evaluation. According to **Martin and Hemes (2008, pp. 28-29)**, accreditation refers to a “process of quality control and assurance whereby, as a result of inspection or assessment, an institution or its programs are recognized as meeting minimum acceptable standards”. Thus, the question raised in this study is what strategies and tactics will an HEIs use to respond to its environment conditions? Particularly, the response of Jordanian private universities to the environmental conditions and the strategic intention towards international accreditation is the focus of this study. In order to develop a complete understanding of this process, it is essential to develop a theoretical link between the environmental conditions and the strategic intent of Jordanian private universities to go for international accreditation.

2 Literature Review

2.1 Social Cognitive Theory (SCT)

The framework for this paper was conceptualized by reviewing previous literature (Svenson, 2009; Heriot et al., 2009; Elliott, 2010; Sabri, 2011; Howard et al., 2011; Steptoe-

Warren et al., 2011; Rana and Dwivedi, 2015). The variables in the conceptual framework were set to reveal their relationship with strategic intention towards international accreditation. SCT assumes that behavior results from the interaction between person and environment. Thus, environmental events or variables are among the elements that have a role in influencing human social thoughts and behavior and demonstrate how the interaction takes place by these thoughts (Bandura, 1988). Previous researchers discuss the role of SCT in clarifying the process of adoption several models, for instance; Rana and Dwivedi (2015) investigate the role of SCT model to understand the adoption of an e-government system among citizens in India. Another research by Lin and Hsu (2015) was to develop a research model of green consumer behavior adoption based on social cognitive theory. As has been observed there are a lack of literature which discussed about SCT model within HEIs context. For the purpose of this study, The researcher views SCT as a theoretical bridge that provides a useful framework for encompassing environmental diversity in relation to strategic intention when seeking international accreditation. The question raised in the study is, does the environmental variables like institutional environment (Uncertainty avoidance and accreditation cost) relate to strategic intention within the context of seeking international accreditation.

2.2 Strategic Intention

Strategy enhances organizations or clarifies the line by which to achieve a sustainable competitive advantage. It involves making choices about which industries to participate in and what products and services to offer, as well as how to allocate corporate resources to achieve sustainability. Hamel and Prahalad (1989) stretched the underlying definition of strategic intent as an obsession that enlists all active management processes, including an organisation's focus on winning, motivation through realization of the value of the set target, and allocation of available resources in order to survive and become profitable. Previous literature discussed about the factors could be associated with strategic intention of organization. Sheehan Jr (1999) argued that strategic intent is essentially based on believes among the board and leadership in organization not on organizational resources. Brand (2011) mentioned that strategic intent is mainly influenced by the history and culture of the society, whereby the intent requires shareholders' acceptability to stretch beyond current aspirations and practices and inspire transition of the intent towards the future through vision, mission and goals. He contended that leadership is critical in unlocking the potential of the strategic intent to contribute towards business positioning and market share gain. Phandanouvong et al. (2009) agreed with this and added that culture has particular relevance in the development of the strategic intent of foreign multinational enterprises. Another research by Mariadoss et al. (2014) they find out that a firm's strategic intent can affect its performance through managerial actions. Hamel and Prahalad (1989) stated that strategic intent represents a unique point of view about the long-term planning or position a firm hopes to realize over the coming decade or so. This would probably include a new strategic direction for the organization. Such an intention would emphasize the long-term focus on the intent of the CEO as the primary contributor to the company's strategy for survival and profit. In terms of execution

of strategic intent, Hamel and Prahalad (1989) concluded that the intent provides long-term consistency both from the leaders and followers to set targets that require personal effort and commitment. In terms of strategic development, Phandanouvong et al. (2009) argued that current resources and capabilities only serve as the initialization tool. Brand (2011) agreed and added that to be truly competitive, strategy requires commitments of significant resources, both available and required to be sourced. This commitment can only be achieved when the leaders develop a strategic intent that is understandable and acceptable at all levels of the organisation.

2.3 Organizational Culture

Hofstede (1985) found that there are three factors that, to some degree, determine the behaviour of a person in the workplace. These factors are national culture, occupational culture and organisational culture. Hofstede and Hofstede (2001) believe that culture influences behaviour through its manifestations: values, heroes, rituals, and symbols. Strategic researchers have recognized organisational culture as a rent-yielding strategic resource that potentially generates a sustainable competitive advantage. Accordingly, organisational culture may enhance firm profitability by reducing the uncertainty and ambiguity inherent in strategic decisions and actions (Lado and Wilson, 1994). So far in this study, organisational culture is defined as values and beliefs of university stakeholders (i.e., administrators, faculty, students, board members and support staff). These values and beliefs are thought to be greatly associated with shaping behaviour of individuals and a university in terms of uncertainty avoidance (Bjerke and Al-Meer, 1993). For the purpose of this study, one dimensions of Hofstede (1985) was adopted for two reasons. First, Hofstede's model is very comprehensive and combines many dimensions: power distance, uncertainty avoidance, individualism and collectivism, masculinity vs. femininity, and long-term vs. short-term orientation. Thus, for the study context, which is about strategic intent, the researcher has adopted one dimension of Hofstede, which is uncertainty avoidance. This dimension are more closely related to strategic choices. Second, uncertainty avoidance is more consistent with the organisational culture of universities for the current study. Organisations that are regarded as an open system are affected by internal and external factors. Steptoe-Warren et al. (2011) noticed that within an organisation, all people pursue their own interests based on their own values and beliefs and are also influenced by external factors, such as the marketplace, technology and society. Thus, the role of managers and leaders in understanding the culture of their people and knowing how to deal with it are described therein. Steptoe-Warren et al. (2011) have suggested that strategic thinkers need to understand both the internal and external factors and their impact on the future of the organisation. They maintained that the organisation's values, as well as individual values and beliefs, can have an impact on strategic choices. For the current study context, the researcher intends to include a brief summary about organisational culture within Arab regions. Hammoud (2011) stated that there is an absence of interest with regard to Arab countries in organisational and management studies. Particularly, out of 236 articles published between 1990 and 1999 in a prestigious international journal, less than 1 percent involved the

study of Arab countries. Based on Hofstede et al. (1991)'s classification of organisational culture, Hammoud (2011) discussed the characteristics of Arab organisation's culture, comparing it with other countries. According to Hofstede's findings' a high power distance (80) and uncertainty avoidance (68) score points with authoritarian leadership structures that develop strict rules, laws and regulations to reinforce their authority and control.

2.4 Accreditation Cost

For a successful manager making the right decisions is one of the most important tasks. The decision process may be complicated by volumes of data, irrelevant data, incomplete information, an unlimited array of alternatives. Thus, every alternative has a cost and benefits, herby the decision making process become more complex. Particularly, any cost or benefit that does not differ between alternatives is irrelevant and can be ignored in a decision. Universities that are considering AACSB accreditation applying decision should be aware that the decision is fraught with economic consequences not only for the business school, but for the institution as a whole. University administrators need to be fully aware of the significant upfront costs of accreditation, along with the increased annual expenditures, while facing a potential decrease in tuition revenue from the business school. Although some of these costs can be reasonably anticipated, the unexpected size of the anticipated costs and those costs that are not anticipated create a critical financial decision for schools seeking accreditation. Every accreditation body has specific standards and a specific philosophy that differentiate it from others. Thus, these specifications might affect a university's decision towards application to the international accreditation body. Also, one important issue that is faced by many smaller schools and colleges is the cost in terms of revenue of whether to change from being unaccredited to becoming accredited with such bodies: AACSB, EQUIS, AMBA and ABET. Thus, before applying to an international accreditation body, universities should take into consideration these factors: the (1) costs and (2) benefits of accrediting the programs (Heriot et al., 2009).

For the current study, accreditation cost is defined based on Shibley's (2004) classification. Accreditation cost is defined as expenses incurred in seeking accreditation; these expenses are classified as labour costs (human time and salary consumed by the self-study and site visit activities by participants at all levels of the institution), non-labour costs (lodging, transportation, meals, and accreditation association fees, publication of documents, postage and telephone calls to communicate with agencies and evaluators, and facilities and equipment rental for site visits) and opportunity costs (activities, grants, research projects, interaction with students and other such items that the faculty member, department or institution may have planned but could not accomplish due to financial and/or labour resources redirected for accreditation activities) (Shibley, 2004).

3 Methodology and Findings

This research contribution is to add acceptable knowledge within social researches, thus making epistemology philosophy the most suitable choice. According to Brand (2011), central to positivism is “that the researcher has to adopt an empathetic stance.” Cavana et al. (2001) stated that quantitative research methods are used within the positivism research paradigm. Through a mono method, a self-administrated questionnaire was distributed. In particular, the aim of positivism in research is to identify universal laws of human behaviour so that we can control and predict events. Based on Cavana et al. (2001), the researcher assumes that the superior management within Jordanian private universities can be controlled by several environmental factors. A total of 593 questionnaire were distributed during the survey and obtained 307 responses. however, only 261 of responses Consisting of Universities Presidents, Deputy Presidents, Deans, Heads of Departments, Quality Assurance Unit Personals and Professors (9, 15, 43, 95, 62 and 37) were suitable to be useful for further analysis, which giving a response rate of $(261/593) 100 = 44.0\%$. All the respondents were from 17 private universities in Jordan. This study applies Structural Equation Modeling SEM-PLS to explore the relationship between Environmental factors and strategic intention towards international accreditation of Jordanian private universities. Then the researcher decide to utilize fuzzy logic approach to clarify the results. Particularly, due to high degree of ambiguity in regards of universities top management intention to go for international accreditation. Business leaders use the managerial equivalent of fuzzy logic to address the ambiguity, fuzzy logic is designed to deal with imperfect information, which in one or more respects is imprecise, uncertain, incomplete, unreliable, vague or partially true.

3.1 Partial Least Square PLS-SEM

This research applies PLS-SEM instead of CB-SEM, due to many reasons; The Phenomenon to be investigated in this study is relatively new and measurement models need to be newly developed. In this study, the phenomenon under investigation is the strategic intention to go for international accreditation. Particularly, the study aims to predict the effects of defined IVs on DV, and investigates relationships between them and the effect. PLS-SEM is preferred when the researcher wants to predict the construct and identify relationships between constructs (Hair et al., 2012; Reinartz et al., 2009). To the best of researcher’s knowledge, no study has tested these integration models as a single model. Moreover, PLS has been utilized by many researchers from various disciplines such as strategic management (e.g., Hulland and of Business, 1999), management information systems (e.g., Dibbern et al., 2004), e-business (e.g., Pavlou and Chai, 2002), organizational behavior (e.g., Higgins et al., 1992). The assessment of the model by PLS analysis typically follows a two-step process that is conducted as the assessment of the measurement model and the structural model (Hair et al., 2011; Hair et al., 2012).

Table 1: Results of the measurement model for constructs

Construct	Cronbach's		Full	
	CR	Alpha	AVE	collinearity
OC (UA)	0.839	0.787	0.535	1.97
AC	0.824	0.756	0.529	4.46
SI	0.870	0.827	0.505	1.99

3.2 Assessment of Measurement Model

The assessment of the measurement model examines the validity and reliability of the relationship between the LV and associated observable variables, whereas assessment of the structural model considers the relationships between constructs (Hair et al., 2011). This research employed WarpPLS 3.0 to analyze the model. To assess construct reliability, two coefficients are typically considered: construct Reliability CR and the more common coefficient Cronbach's alpha (Bagozzi and Yi, 1988; Götz et al., 2010). However, CR is more suitable for PLS-SEM (Hair et al., 2011). Table 3.1 shows that the CR for latent variables in the measurement model are more than 0.7. After removing the items with loading lower than 0.4, the CR of all constructs are higher than 0.776. The CR of OC (UA), AC and SI is 0.839, 0.824, and 0.870 respectively. Therefore, the measurement model has internal consistency and is reliable.

The validity of the reflective measurement model considers convergent and discriminant validity (Hair et al., 2012; Götz et al., 2010). The AVE values of LVs should be higher than 0.5 to gain an acceptable convergent validity (Bagozzi and Yi, 1988; Hair et al., 2011). AVE is used to measure the amount of variance in an LV that is contributed from its indicators. Table 1 shows that the AVE values of all constructs of the measurement model. However, after removing the items with loading lower than 0.4 the AVE of constructs have increased. The AVE of OC, AC and SI after removing tricky items are 0.535, 0.529 and 0.505 respectively. Moreover, the associated p value for all indicators is lower than 0.01. Therefore, convergent validity is acceptable in the measurement model.

Discriminant validity is the extent to which each construct is truly distinct from the other constructs in the model (Hair Jr et al., 2016). Two measures must be checked to test discriminant validity. The AVE of each construct should be higher than the highest squared correlation of the construct with any other LV in the model, and an indicator's loading with its associated LV must be higher than its loading with other LVs (Fornell and Larcker, 1981; Hair et al., 2011).

Table 2 presents the comparison of the square root of AVE of each construct with the correlation of the other construct. The full collinearity refers to vertical and lateral collinearity between one construct and other constructs (Kock and Lynn, 2012). Moreover, this measure can be used for the common method variance (CMV) test and is more conservative than the traditional test that relies on exploratory factor analysis (Kock and Lynn, 2012). This measure should be lower than 3.3 according to Kock (2011). The

full collinearity of all constructs are lower than threshold and acceptable except AC. Therefore this construct have discriminant validity and collinearity problem. To address these problems and gain acceptable discriminant validity and full collinearity, the indicators that affect more than one construct must be removed. Therefore, for problematic constructs, the indicators with a highly cross-loading on other constructs must be found and removed from the model, and run the analysis again. To solve these problems Ac5 and Ac6 were removed one by one, and the analysis was repeated.

Table 2: First order discriminant Validity

CONSTRUCTS	OC	AC	SI
OC	0.718		
AC	0.526	0.848	
SI	0.507	0.433	0.711

Note: Square roots of average variances extracted (AVE's) shown on diagonal.

Therefore, after modification and removing the tricky indicators from the constructs, reliability, convergent validity, discriminant validity, and full collinearity was highly acceptable for measurement model.

3.3 Assessment of Structural Model

According to the objectives of this study, the relationships between constructs and SI have been assessed. The following two criteria should be evaluated to obtain a preliminary assessment of the structural model (inner model): R-square (R^2) measure of endogenous constructs and the path coefficients (Hair et al., 2011). The path coefficients must be significant, and R^2 is highly depended on the research area. **Chin (1998)** suggested 0.67, 0.33, and 0.19 measures for R^2 to be considered substantial, moderate, and weak, respectively. Whereas R^2 value of 0.20 is considered high in consumer behavior area (Hair Jr et al., 2016). The R^2 value of endogenous construct (SI) of the current study in first round assessment is 0.46. Therefore, the value is acceptable. All path coefficients are highly significant as well (See Table 3). Therefore, all hypothetical relationships are significant and supported.

Table 3: Results of path coefficients and hypotheses testing for first model

HYPOTHESES	PATH COEFFICIENT	P VALUE	EFFECT SIZE	SUPPORTED
OC SI	0.29	<0.01	0.150	Yes
AC SI	0.11	<0.05	0.047	Yes

The researcher decide to utilize the effect size (f^2) (Equation 1) is another criterion that verifies whether the effects indicated by path coefficients are high, moderate, or low. 0.02, 0.15, and 0.35 values for f^2 represent low, moderate, and high effects, respectively

(Cohen, 1988). The effect size implies whether the impact of a specific independent LV on a dependent LV is substantial or not (Chin, 2010) and is calculated according to the changes of R^2 of dependent LV when the independent variable included in the model and excluded. The effect size formula is presented as:

$$f^2 = \frac{R^2_{included} - R^2_{excluded}}{1 - R^2_{included}} \quad (1)$$

After the researcher run the data on PLS the effect size represents the contribution of IV on R^2 of dependent LV. All relationships in the model have small and moderate effects which. The relationship between OC and SI has the highest effect size. Particularly, Organizational Culture OC has highest significant and positive effect on Strategic Intention SI with path coefficient = 0.29, and $f^2 = 0.150$, that is followed by effects of AC is significant and positive where the path coefficients is 0.11 with small effect sizes equal 0.047. WarpPLS 3.0 provides the following three important indices to assess model fit: APC, ARS, and AVIF. To fit the model, the p value of the first two measures should be less than 0.05, and AVIF should be lower than 5. In this situation, a good fit of the model to data set can be established (Kock, 2011; Kock and Lynn, 2012). Table 4 shows good model fit for the model.

Table 4: Model fit indices for first model

Model fit Indices	Measure	Supported
Average Path Coefficients (APC)	0.204, p<0.01	Yes
Average R Squared (ARS)	0.462, p<0.001	Yes
Average variance inflated factor (AVIF)	1.692 <5	Yes

3.4 Fuzzy Logic

Humans have a remarkable capability to reason and make decisions in an environment of uncertainty, incompleteness of information. Fuzzy logic is a form of multi-valued logic or probabilistic logic; it deals with reasoning that is approximate, rather than fixed and exact. Fuzzy logic was developed by Lotfi A. Zadeh, in 1965, and it's been applied to many fields, e.g.; control theory, artificial intelligence, decision-making. Also to business management decision-making, which involves tough decisions with limited information that's usually vague, uncertain. Fuzzy logic is usually defined as an approach for decision-making based on "degrees of truth" rather than the usual "true or false". With today's information overload, it has become increasingly difficult to analyze the huge amounts of data and to make appropriate management decisions. It's important to extend traditional decision-making processes by adding intuitive reasoning, human subjectivity. Most publications in management and marketing do not address the problems that arise when using just traditional, non-fuzzy, or crisp methods.

3.4.1 Fuzzy Linguistic Variable

Fuzzy many-valued logics are a truth-functional generalization of classical logic. Atomic predicates $p=n$ are considered fuzzy relations, whose truth degree is given by their associated membership function. Bellman and Zadeh (1977) defines a linguistic variable as a variable whose values are not numbers but words or phrases in a natural or synthetic language. In a problem when we are working on linguistic variables, we can present their means. At that moment, we can rate and weight the various conditions by using the fuzzy linguistic variables. Linguistic variables represent the relative importance and appropriateness of each ranking method that simultaneously considers the metric distance and fuzzy mean value is proposed. The distance from the ideal solution and the fuzzy mean value are the usual criteria for ranking fuzzy numbers. Based on fuzzy logic analysis the strategic intention of Jordanian private universities towards international accreditation could be effected by various environmental factors. According to Tomasz Korol globalization has led to the emergence of a complex network of relationships in the business environment, which means increased complexity and uncertainty of factors affecting all businesses. For the current study a proposed roles based on the PLS Findings. Thus, it was found that the Uncertainty Avoidance (UA) and Accreditation Cost (AC), has a significance relationship, hereby each factor affects the strategic intention of universities' top management to go for international accreditation as shown in Table 5.

Table 5: The Estimation of Environmental factors in Strategic Intention

Variable	Variable	Output
OC-UA (L)	AC (L)	SI (H)
OC-UA (H)	AC (H)	SI (L)
OC-UA (L)	AC (H)	SI (L)
OC-UA (H)	AC (L)	SI (M)

As its appears in Table 5, the first function member for SI is high as the function assumed that's due to low level of UA as well as AC, practically its mean that Jordanian private universities were encouraged to go for international accreditation bodies where there top management has low uncertainty avoidance characteristic and enough budget to cover the accreditation fees. The second function assumed that the strategic intention of Jordanian private universities is low and that's due to high level of uncertainty avoidance characteristic and no enough budget to cover the fees of accreditation.

4 Discussion

As Steptoe-Warren et al. (2011) believed that the future of the organization is often influenced by certain internal and external environmental factors. This suggests that strategic thinkers have to take into consideration the impacts of these factors on the

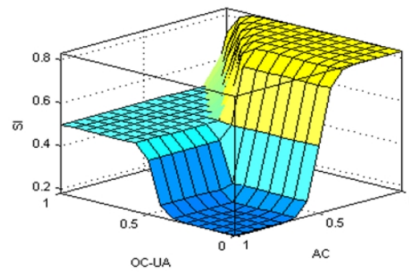


Figure 1: Surface viewer of model rules

future of the organization. Relying on the Social Cognitive Theory (SCT) that identifies certain environmental factors that influence the human behavioral thinking, the current study attempts to explore the relationship between Organizational Culture, Accreditation Cost and Strategic Intention towards international accreditation. The researcher found a significant relationship between organizational culture and Strategic Intention towards international accreditation and effect on strategic intention to go for international accreditation. Hofstede and Hofstede (2001) highlighted that one of the factors to some degree that determines the behavior of a person in the workplace is the organizational culture. Steptoe-Warren et al. (2011) posited that attributes, values, individual values and beliefs have an impact on the strategic choices of strategic thinkers. Regarding the uncertainty avoidance within Jordanian context, the mean scores for the items was within the range of 5.03 to 5.48. However, based on Nazarian's table (2012), the mean scores for the uncertainty avoidance items correspond to 71 to 78.57 approximately. Thus, within this score the results reveal that the uncertainty avoidance level is high. With this result, it can be seen clearly the finding of the current study agree with **Hofstede (1980)** who categorized Arab Countries among the uncertainty avoidance cultures. The implication of this is that the administrations of Jordanian private universities hesitate to seek international accreditation. This is particularly so because the members of administrative private universities are threatened by ambiguity or uncertainty that characterizes the current situations and also by certain beliefs and institutions created to evade such accreditation exercises. It was found that there are a significant relationship between international accreditation Cost and Strategic Intention towards international accreditation and also found a significant effect on strategic intention to go for international accreditation. In answering the third sub question, Prather (2007) highlighted in his findings that the reasons behind not seeking specialized accreditation were the financial resources involved. The current study does not just focus on financial matters, but focuses on intangible cost. This is as Heriot et al. (2009) found that AACSB accreditation might have a significant financial implication not only for the business programs, but also on the rest of the college or university. Challa et al. (2005) in his study corroborated the extant literature that seeking accreditation requires the institution to make changes with regard to program curricula, staffing, administration, and facilities. This

eventually requires a huge lot of expenses to be incurred. Respondents slightly agree regarding university administration custody in regards international accreditation due to the costs associated with improving the facilities and resources of the college. Meanwhile, a review of literature shows that Doyle and Grampp (2008) opined that many organizations fail to identify hidden costs of accreditation in terms of quality management procedures and implementations, risk management activities, overtime work by staffs involved and also neglecting of operational duties and responsibilities due to the attention given to the accreditation process. Also, respondents think that university administration has custody on progress of applying for international accreditation because of the costs associated with staff training. Potter and Phelan (2008) who highlighted that the topmost priority for the majority of the leaders is financial related matters buttressed the finding. Specifically, most boards devote at least 50% of their time at board meetings to discussing and debating issues that involve money. Indeed, it was found that respondent believed that the cost of hiring professional academics staff associated with university custody to go for international accreditation.

5 Conclusion

The results showed a significant relationship between organizational culture, Accreditation cost and strategic intention. Based on fuzzy logic simulation, private higher-education institution should move from hesitation due to costly accreditation requirements to realizing the benefits of having implemented risk management towards adopting international activities such as international accreditation. In conclusion, based on the research problem addressed, the findings suggest that Jordanian private universities need to make more reliable and implementable strategies by taking into consideration environmental conditions. More specifically, universities should make some changes in term of decision making, especially in respect to international accreditation. This could be accomplished by allowing subordinates to contribute to decision making and allowing them to put forth their observations regarding environmental conditions. Practically, private university leaders should involve subordinates in decision-making, and leaders in private universities should encourage subordinates to act upon new changes.

References

- Altbach, P. (2015). American accreditation of foreign universities: Colonialism in action. *International Higher Education*, (32).
- Antony, S. (2005). Quality assessment in massive and diverse systems: The indian experience.
- Bagozzi, R. P. and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1):74–94.
- Bandura, A. (1988). Self-regulation of motivation and action through goal systems. In *Cognitive perspectives on emotion and motivation*, pages 37–61. Springer.

- Becket, N. and Brookes, M. (2005). Analysing quality audits in higher education. *Brookes ejournal of learning and teaching*, 1(2):1–12.
- Bellman, R. E. and Zadeh, L. A. (1977). Local and fuzzy logics. In *Modern uses of multiple-valued logic*, pages 103–165. Springer.
- Bjerke, B. and Al-Meer, A. (1993). Culture's consequences: management in saudi arabia. *Leadership & Organization Development Journal*, 14(2):30–35.
- Brand, C. G. (2011). *A model for the formulation of strategic intent based on a comparison of business and the military*. PhD thesis.
- Cavana, R. Y., Delahaye, B. L., and Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. John Wiley & Sons Australia.
- Challa, C. D., Kasper, G. M., and Redmond, R. (2005). The accreditation process for is programs in business schools. *Journal of Information Systems Education*, 16(2):207.
- Chen, C.-Y., Chen, P.-C., and Chen, P.-Y. (2014). Teaching quality in higher education: An introductory review on a process-oriented teaching-quality model. *Total Quality Management & Business Excellence*, 25(1-2):36–56.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. hillside. NJ: Lawrence Earlbaum Associates.
- Dibbern, J., Goles, T., Hirschheim, R., and Jayatilaka, B. (2004). Information systems outsourcing: a survey and analysis of the literature. *ACM Sigmis Database*, 35(4):6–102.
- Doyle, G. and Grampp, C. (2008). Accreditation as a quality tool in public sector reform: the fourth stage of convergence. *Dublin School of Business, College of Business and Law, University College Dublin, Belfield, Dublin*.
- Elliott, C. J. (2010). *Understanding the context, impacts and consequences of accreditation on Canadian university business schools*. PhD thesis, University of Ottawa (Canada).
- Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, pages 39–50.
- Götz, O., Liehr-Gobbers, K., and Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (pls) approach. In *Handbook of partial least squares*, pages 691–711. Springer.
- Hair, J. F., Ringle, C. M., and Sarstedt, M. (2011). Pls-sem: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2):139–152.
- Hair, J. F., Sarstedt, M., Ringle, C. M., and Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, 40(3):414–433.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., and Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Hamel, G. and Prahalad, C. (1989). Strategic intent, harvard business review. *Tekst dostupan na: [http://hbr.org/1989/05/strategic-intent/ar/\(25.oktobar.2012.godine\)](http://hbr.org/1989/05/strategic-intent/ar/(25.oktobar.2012.godine))*.

- Hammoud, J. (2011). Consultative authority decision making: On the development and characterization of arab corporate culture. *International journal of business and social Science*, 2(9).
- Heriot, K. C., Franklin, G., and Austin, W. W. (2009). Applying for initial aacsb accreditation: An exploratory study to identify costs. *Journal of Education for Business*, 84(5):283–289.
- Higgins, C. A., Duxbury, L. E., and Irving, R. H. (1992). Work-family conflict in the dual-career family. *Organizational Behavior and Human Decision Processes*, 51(1):51–75.
- Hofstede, G. (1985). The interaction between national and organizational value systems [1]. *Journal of Management Studies*, 22(4):347–357.
- Hofstede, G., Hofstede, G. J., and Minkov, M. (1991). *Cultures and organizations: Software of the mind*, volume 2. Citeseer.
- Hofstede, G. H. and Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage.
- Hou, A. Y.-c. (2014). Quality in cross-border higher education and challenges for the internationalization of national quality assurance agencies in the asia-pacific region: the taiwanese experience. *Studies in Higher Education*, 39(1):135–152.
- Howard, T., Cornuel, E., Thomas, H., and Thomas, L. (2011). Perspectives on leadership in business schools. *Journal of Management Development*, 30(5):526–540.
- Hulland, J. and of Business, R. I. S. (1999). Use of partial least squares (pls) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2):195–204.
- Knight, J. (2015). The international race for accreditation. *International Higher Education*, (40).
- Kock, N. (2011). Using warppls in e-collaboration studies: an overview of five main analysis steps. *Advancing Collaborative Knowledge Environments: New Trends in E-Collaboration: New Trends in E-Collaboration*, 180.
- Kock, N. and Lynn, G. (2012). Lateral collinearity and misleading results in variance-based sem: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7).
- Lado, A. A. and Wilson, M. C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *Academy of management review*, 19(4):699–727.
- Lin, H.-Y. and Hsu, M.-H. (2015). Using social cognitive theory to investigate green consumer behavior. *Business Strategy and the Environment*, 24(5):326–343.
- Mariadoss, B. J., Johnson, J. L., and Martin, K. D. (2014). Strategic intent and performance: The role of resource allocation decisions. *Journal of Business Research*, 67(11):2393–2402.
- Nazarian, A. (2012). Changes in scores of national culture dimensions in iran by using individual level of measures. In *Brunel Business School–Doctoral Symposium, 27th £*

28th.

- Pavlou, P. A. and Chai, L. (2002). What drives electronic commerce across cultures? across-cultural empirical investigation of the theory of planned behavior. *J. Electron. Commerce Res.*, 3(4):240–253.
- Phandanouvong, L. et al. (2009). Foreign firm strategic intent and its interrelationship/alignment with thai cultural and social values.
- Potter, G. E. and Phelan, D. J. (2008). Governance over the years: A trustee's perspective. *New Directions for Community Colleges*, 2008(141):15–24.
- Prather, C. D. (2007). Specialized accreditation in collegiate aviation: An analysis of the perceived value of specialized accreditation by the aviation accreditation board international. *Open Access Theses and Dissertations from the College of Education and Human Sciences*, page 18.
- Rana, N. P. and Dwivedi, Y. K. (2015). Citizen's adoption of an e-government system: Validating extended social cognitive theory (sct). *Government Information Quarterly*, 32(2):172–181.
- Reinartz, W., Haenlein, M., and Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based sem. *International Journal of research in Marketing*, 26(4):332–344.
- Sabri, H. A. (2011). The impeding drivers of risks at private higher education institutions in jordan: An analytical approach.
- Sallis, E. (2014). *Total quality management in education*. Routledge.
- Sheehan Jr, R. M. (1999). Achieving growth and high quality by strategic intent. *Non-profit Management and Leadership*, 9(4):413–428.
- Shibley, L. R. (2004). *The compared costs and benefits of interagency cooperation and separate accreditation processes: A case study*. PhD thesis, The Pennsylvania State University.
- Srikanthan, G. and Dalrymple, J. (2003). Developing alternative perspectives for quality in higher education. *International Journal of Educational Management*, 17(3):126–136.
- Stephoe-Warren, G., Howat, D., and Hume, I. (2011). Strategic thinking and decision making: literature review. *Journal of Strategy and Management*, 4(3):238–250.
- Svenson, N. A. (2009). *The Effects of Globalization on the Panamanian University System: 1990–2007*. ProQuest.