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Author(s): Said Elbanna and Mohamed Alhwarai

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Said Elbanna, Ph.D[1]
Associate Professor of Strategic Management
Faculty of Business & Economics
United Arab Emirates University
P.O. Box 17555 Al Ain
United Arab Emirates
Tel: (+971) 3 7133 402
Fax: (+971) 3 7624 384
Email: selbanna@uaeu.ac.ae

Mohamed Alhwarai, Ph.D
Assistant Professor of Marketing
College of Business Administration
University of Sharjah
Email: malhawari@sharjah.ac.ae

[1] **Corresponding author**

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ABSTRACT

This paper has two purposes. The first, main, purpose is to investigate the influence of environmental uncertainty and hostility on organizational performance over two independent samples. The second purpose is to assess whether there are any significant differences between the perceptions of environmental uncertainty and hostility between Egyptian and United Arab Emirates (UAE) managers. The assessment of the two measurement scales, the test of the two samples, hypothesised relationships represented in the conceptual model, and the main factors differences over the two samples were conducted with the use of AMOS 6 and SPSS 14. Our results show that product uncertainty and hostility have negative influence on organizational performance over the two samples. Competition and economic uncertainty have no relation with organizational performance over the two samples. Moreover, Egyptian managers perceive environmental uncertainty and hostility factors as significantly higher than do UAE managers.

Keywords: Environmental uncertainty; hostility; organizational performance; Egypt; United Arab Emirates; AMOS 6

INTRODUCTION

An organization does not work in isolation; on the contrary, it interacts with its environment. Given that managers are operating in the context of their organization's environment, the attributes of this environment affect the scope of their actions. The contingency theory in strategic management proposes that environmental attributes have major implications for all aspects of management, including strategy, structure, process and organizational outcomes. Hence, organizational environment is a major source of the contingencies faced by managers (Bourgeois, 1980; Elbanna, 2010; Tosi & Slocum, 1984). Most management researchers accept both that an organization's environment is of the greatest importance to its existence and that there is indeed a close relationship between an organization's environmental attributes, on the one hand, and, the managerial choices made, on the other (Baack & Boggs, 2008; Calori et al., 1994; Mukherji & Hurtado, 2001).

Hundreds of empirical studies in management have examined the impact on performance of the variables associated with managerial practices, organization attributes and top management teams. Many of these studies consider the control or moderating effect of the environment on these relationships. However, it is rare to find empirical studies examining the direct impact of environment on performance or comparing managers' perception of environmental attributes in different countries and those conducted in Arab countries are almost nonexistent. Hence, the strategic management field can be criticized for not examining the direct impact of environment on performance and not comparing managers' perceptions of environment in different countries, especially in non-developed countries. Additionally, the particular research methods used in a single study must affect its results (Elbanna, 2006); thus, the results of any study must always be interpreted cautiously, as generalizability is not assured. Incorporating multiple studies in a single research effort can help to overcome these problems. Adopting such replicated designs allow for richer assessments of the generalizability of research findings (Miller et al., 1998). A few studies adopt this approach (e.g. Fredrickson, 1985).

This study aims to address some of the above concerns by examining the direct impact on organizational performance of managers' perception of the environment and also by comparing this perception in two countries. In so doing, it incorporates in

a single research effort two studies with one sample each from two Arab countries, Egypt and the UAE.

VARIABLES AND HYPOTHESES

Variables

Previous research attempts to capture environmental influences on both managerial and organizational variables, either in terms of environmental attributes such as uncertainty, complexity and hostility (e.g. Hough & White, 2003) or in terms of external parties, such as governmental agencies, customers, suppliers, competitors and unions (e.g. Hickson et al., 2001). Because both environmental uncertainty and hostility have been of interest to many researchers in the strategic management field, we incorporate them in our study to examine their role on firm performance. As Baum and Wally (2003) state, these two attributes have appeared frequently or been suggested for future research in empirical studies.

Environmental uncertainty

Dealing with environmental uncertainty is a common problem faced by all executives (Elbanna & Gherib, forthcoming). For example, executives virtually never have access to all the relevant information, nor can they generate all the possible alternatives and accurately anticipate all the consequences (Alkaraan & Northcott, 2006). In many areas of management studies, researchers consider environmental uncertainty as the environmental dimension on which most theoretical interest and empirical effort have focused. Thus, this study chose environmental uncertainty from among many other environmental variables. Galbraith (1977) defines uncertainty as a gap between the information which one has and the information which one needs to perform a task. Some authors have treated uncertainty as a mystery which rational processes cannot resolve. Milliken (1987) identifies three facets of uncertainty. These are lack of clarity about cause-effect relations, inability to predict the probability of some future state or event, which would favour one alternative or another, and the unpredictability of outcomes. Some authors use uncertainty to refer to uncertainty related to specific events, such as decision uncertainty (e.g. Elbanna & Child, 2007); others address environmental uncertainty in general (e.g. Baum & Wally, 2003). This paper follows the latter course.

After Lawrence & Lorsch tackled the perceived environmental uncertainty scale (1967), many researchers addressed this central concept within organizational theory. In the thirty years after 1967, Lawrence & Lorsch's study, in addition to those of Duncan (1972) and Miles & Snow (1978), have probably received most attention from researchers (Buchko, 1994). However, many criticisms of these environmental uncertainty scales have been made by researchers (e.g. Hrebiniak & Snow, 1980; Miller, 1993). For example, one of the major criticisms of early uncertainty scales has been that researchers have not rigorously examined their conceptual and methodological adequacy (Lewis & Harvey, 2001). Moreover, given the complexity of our world, we cannot limit our examination of environmental uncertainty only to one uncertainty area at a time. Each uncertainty area may have different implications for managerial practices and organizational outcomes. Thus, it is important to incorporate a number of environmental uncertainty variables into investigations of environmental uncertainty. Scholars have attempted to reconcile this multidimensionality problem. For example, Miller (1993) mentions two possible perspectives on the way in which managers perceive environmental uncertainty. The first one, the international management perspective, focuses primarily on the assessment of political, governmental policies and macroeconomic uncertainties. The second one is the strategy perspective, which sees the industry, rather than the country, as the relevant level of analysis. This perspective emphasises uncertainties regarding process technologies, the availability of inputs, product demand and competitors. Recent strategy research reflects a growing interest in integrating these two perspectives (e.g. Elbanna, 2007; Lewis & Harvey, 2001; Werner et al., 1996). The present study adopts both perspectives. The disparity between these two perspectives in the levels of analysis introduces an important empirical question: does country, industry or a combination of both affect organizational performance?

Environmental hostility-munificence

Hostility-munificence is reflected in the social, political and economic markets and in infrastructural resources (Specht, 1993). Munificence refers to the ability of the environment to support the sustained growth of an organization (Dess & Beard, 1984) and/or the degree of resource abundance (Hodge et al., 2003). Shane and Kolvereid (1995) point out that munificence measures the richness of the market for the firm, e.g. the potential market demand, market receptivity to the firm's products and the

size of the market opportunity. In focusing on the capacity of factors and institutions at the macro environmental level, Wan and Hoskisson (2003) view environmental munificence as the availability of crucial factors (e.g. natural resources, physical infrastructure and education quality) and institutions (e.g. fiscal policy, bureaucratic corruption, judiciary system efficiency and civic norms of cooperation) in a home country environment. Edelstein (1992) mentions that a hostile environment is one in which the changes in the external environment of the firm are perceived as unfavourable to the mission or outputs of the firm. This environment can be characterised, for example by tough competition in the market, low margins, oppressive governmental regulations and limited growth opportunities (Zahra et al., 1997).

Environmental hostility-munificence is regarded as one of the most important attributes for explaining strategic behaviours and outcomes (Castrogiovanni, 1991; Elbanna, 2009). Although there is little empirical research examining the impact of environmental hostility-munificence on organizational strategy, structures, innovation decision-making and organizational outcomes, previous research clearly points to its importance (Elbanna, 2009; Goll & Rasheed, 1997; Kotha & Nair, 1995; Wan & Hoskisson, 2003). For example, Rajagopalan et al. (1993) argue that organizations in munificent environments are less likely to be penalised for poor decisions than those in hostile environments; thus, decision processes which are suited to munificent environments may be inappropriate for less munificent ones. Elbanna and Child (2007) and McArthur and Nystrom (1991) demonstrate that the level of environmental hostility-munificence was a significant predictor of the relationship between the strategy process and organizational outcomes. Miller and Friesen (1983) report a positive relationship between environmental hostility and the degree of analysis in the strategy process.

Hypotheses

Environmental uncertainty and hostility as related to organizational performance

Performance lies at the heart of any managerial process and is therefore considered as a critical concept in the strategic management field. Performance has been widely studied and investigated both in practice by business professionals and in theory by academics (Al-hawari, 2006; Elbanna, 2009; Venkatraman & Ramanujam, 1986).

Since improving organizational performance is the ultimate objective of any organization, we need to examine the impact of managers' perceptions of environment's attributes on it. This will help to provide some implications for managers leading at the end to improved managerial practices and consequently organizational outcomes. Given the above, in order to maximize the practical utility of the executives' perception of their organizational environment's attributes, we decided to examine the impact on performance of managers' perceptions of both environmental uncertainty and hostility.

Due to the lack of studies, no direct link has so far been established between environmental uncertainty and hostility as independent variables and organizational performance as a dependent variable. The literature assumes that organizations facing high uncertainty and hostility in the environment will tend to be more market oriented (Lonial & Raju, 2001) to ease the negative influence on performance. Managers' perception of high levels of environmental uncertainty may reduce their ability to properly plan for their organizations and hence negatively influence organizational performance. Moreover, the performance of the organization depends on the fit between its resources and the external environment (Hisrich et al., 2008). If the fit is good, due to environmental stability, then the firm will be rewarded with superior performance. However, if the environment is hostile, characterized by precarious industry settings, intense competition, overwhelming harshness in the business climate and the relative lack of exploitable opportunities (Covin & Covin, 1990), this tends to create a poor fit, leading to inferior performance. Baum and Wally (2003) report that high environmental munificence positively relates to organizational performance in terms of growth and profitability. Therefore, to clarify this issue practically within the Arabian context, it is expected that:

Hypothesis 1: Managers' perception of high levels of environmental uncertainty has a negative influence on organizational performance.

Hypothesis 2: Managers' perception of high levels of environmental hostility has a negative influence on organizational performance.

Managers' perception of environmental uncertainty and hostility

After proposing the impact of environmental uncertainty and hostility on organizational performance, it was necessary to compare the variations in managers' perceptions of environmental uncertainty and hostility between Egypt and the UAE to satisfy the goals of this research. It is worth noting that the literature did not have a great deal to say about comparing managers' perceptions across different countries.

The UAE has a highly industrialized economy, which has turned the country into one of the most developed in the world, according to various socioeconomic indicators such as GDP per capital, energy consumption per capital, and the Human Development Index[2]. All available statistics indicate that the UAE currently has one of the fastest growing economies in the world. As regards Egyptian economic conditions, they started to improve considerably after the government in the 1990s adopted more open economic policies[3]. Even so, the Egyptian economy still faces a number of difficulties mainly from the unfair distribution of the national wealth. Moreover, most Egyptians have weak purchasing power; they blame poor governmental policy in the managing of the economy. Corruption is considered as a main obstacle to the fair allocation of wealth. Consequently, without making a formal hypothesis, we propose the following:

Proposition: The Egyptian managers perceive environmental uncertainty and hostility as significantly higher than do the UAE managers**.**

RESEARCH DESIGN

Given the problems of transferring management concepts to another country (Elbanna, 2008), the first author developed the questionnaire in several stages. First, the English version of the questionnaire was reviewed by three academics to ensure that it was not confusing, vague, or biased. Second, the final English version of the questionnaire was translated into Arabic. Third, five academics who were bilingual (in Arabic and English) reviewed both the Arabic and English versions of the questionnaire to ensure that the translation was equivalent. Finally, a modified Arabic version was administered to eight Arab managers. The resulting Arabic questionnaire could be

[2] http://en.wikipedia.org/wiki/United_Arab_Emirates. Accessed on 14/5/2008
[3] http://en.wikipedia.org/wiki/Egypt. Accessed on 14/5/2008

described as being as close in meaning to the original English version as possible; moreover, the same layout, paper, order of questions, and number of pages were used in both versions. In order to reduce possible bias, participants were informed that there were no 'correct' answers. In the light of what was learnt in the above phases, a number of amendments were made to the questions asked. Several items were changed, deleted or reordered. For example, two items referring to politics were removed from the consideration of environmental uncertainty (i.e. "the ability of the party in power to maintain control of the country" and "the threat of armed conflict in the Middle East"), since respondents had been reluctant to answer these two items. The intention was to make our measures both more applicable to, and acceptable in, the Arabic context. We turn next to the operationalization of the study variables.

Measures

Following Elbanna and Gherib (forthcoming), we operationalized Miller's (1993) scale of environmental uncertainty, which we chose for three reasons: (1) This scale can be considered the most comprehensive framework of perceived environmental uncertainty to date (Werner et al., 1996). (2) Researchers have considerably tested and proved the validity and reliability of this scale in several different settings (i.e. Egypt, the Netherlands, the UK and six Latin American countries) and different contexts (e.g. agriculture, manufacturing, and services; local and international; one industry and a wide range of industries) (Elbanna, 2007; Lewis & Harvey, 2001; Werner et al., 1996). This safeguards the scale against the criticism directed to other measurement scales of environmental uncertainty, that researchers do not sufficiently examine their methodological adequacy. (3) Miller's scale analyzes the perceived environmental uncertainty in different areas, such as governmental policies, macroeconomic factors, product, market, demand and competition. According to Miller, the use of this scale has some immediate implications for empirical research. For example, the scale allows researchers to view different aspects of environmental uncertainty as parallel, and so to address a wide range of questions which effectively escape the partial and disconnected perspectives of environmental uncertainty.

Environmental hostility-munificence was operationalized according to the work of Khandwalla (1977); a composite variable consisting of three 7-point Likert-type scales was used to measure the degree of environmental riskiness, stressfulness and

dominance over the company. A high score refers to a hostile environment, while a low score refers to a munificent environment. Khandwalla's scale of environmental hostility-munificence was chosen because previous research has shown its importance and proved its validity and reliability.

Organizational performance can be measured both through objective and subjective indicators, but the substitutability of the latter for the former remains controversial. It is quite common for respondents in Arab countries to refuse to provide researchers with objective data on organizational performance. This may be because many managers in Arab countries are not familiar enough yet with researchers to cooperate with them or to provide anyone else with information about their firms, especially financial data. For instance, in an exploratory stage of this study, one interviewee declared, 'I cannot provide you with any financial or demographic data because of confidentiality considerations.' In view of these limitations, we used subjective perceptual measures to gauge organizational performance. Given that in any organization there may be parts of the organization which function well and suggest satisfactory performance, while other aspects of the same organization perform poorly and suggest unsatisfactory performance, we used the balanced scorecard to measure organizational performance from different perspectives. The original balanced scorecard, as developed by Kaplan & Norton (1992), focuses on four different perspectives, which together can provide a comprehensive picture of organizational performance. These, as used in the present study, are the financial perspective (i.e., growth rate of sales or revenues, return on assets and operating profits), the customer perspective (i.e., market share), the internal business perspective (i.e. efficiency of operations and quality of product) and the growth perspective (i.e. new products development).

Samples

Sample 1

In order to control for the unknown effects of country, type of ownership, industry, region and company size, the proposed sampling frame consisted of 400 Egyptian private manufacturing companies working in greater Cairo and employing more than 100 people. Out of the 400 distributed questionnaires, 169 respondents provided usable questionnaires, resulting in a final response rate of 42%. The drop off and pick

up technique, which has been successful before in Egypt, was used to collect questionnaires (Elbanna & Naguib, 2009). Eight respondents completed the final format of the questionnaire again (four months later) for test-retest reliability purposes. The Pearson correlation coefficients between the answers of the eight respondents range between 0.83 and 0.99 and suggest a high degree of stability of the measures used in this study. The sample covered different industry sectors. These were textiles and clothing (23%); chemicals (21%); food and beverages (18%); electrical and electronic (12%); metals and engineering (11%); automotive (5%); furniture (4%); building materials manufacturing (4%); others (2%). The average number of employees was 478. 116 respondents (69%) requested a summary report on the final results. All respondents were male. Almost all managerial positions were adequately represented in our sample: general managers or managing directors (20%); chairpersons or presidents (14%); chief officers (marketing, finance and production) (31%); directors (35%). Similarly, our respondents belonged to several different functional areas.

Sample 2

For generalizability purposes, we asked 300 managers from private companies working in the UAE to complete our questionnaire. 93 managers provided usable responses, resulting in a final response rate of 31%. While this response rate could be considered low, at least compared to sample 1, it is not atypical for research targeting busy people such as managers (e.g. Mueller et al., 2000). We employed the drop off and pick up technique, which has been successful before in Saudi Arabia, a neighbouring country to the UAE, with a similar culture (e.g. Hunt & At-Twaijri, 1996). Our companies belong to a wide variety of industries, including trading (34%); financial (28%); manufacturing (19%); consultation and education (6%); construction (4%); communication (3%); others (6%). The average number of employees in the whole sample (582) was similar to the first study. The sample contained 87% male and 13% female respondents. Our respondents had different managerial positions: general manager or managing director (27%); section head (25%); department manager (24%); branch manager (17%); vice manager (7%). Similarly, our respondents belonged to different functional areas. In contrast to the result of Study 1 (69%), only 23% of the respondents requested a summary report on the results. This low percentage raises questions. It may be a negative indicator of the respondents'

seriousness in answering the questionnaire or may be a culture-specific feature. More research is required to clarify this issue

RESEARCH ANALYSIS

The assessment of the two measurement scales, the test of the two samples, hypothesised relationships represented in the conceptual model, and the main factors differences over the two samples were conducted with the use of AMOS 6 and SPSS 14. The measurement models were first assessed with confirmatory factor analysis using AMOS 6. The hypothesised relationships over the two samples were tested with the structural equation model. Finally, the independent sample t-test was used to test for the differences between the managers' perceptions of environmental uncertainty and hostility over the two samples.

Measurement model

To assess the measurement model over the two samples, four analyses were conducted. First, Confirmatory Factor Analysis (CFA) was conducted, using AMOS 6 to empirically investigate the suitability of the proposed model to the data (Al-hawari, 2006). The overall fit of the model was acceptable over the two samples. Sample 1 has χ^2 (Chi-square) of 904 (df=362, p=0.00), χ^2/df ratio of 2.5, and a comparative fit index (CFI) of 0.87 (Hair et al., 1995). Sample 2, for its part, has χ^2 (Chi-square) of 632 (df=362, p=0.00), χ^2/df ratio of 1.75, and a comparative fit index (CFI) of 0.80. Second, unidimensionality was assessed prior to examining reliability and validity (Hair et al., 1995). In order to test for unidimensionality, CFA was conducted on the measurement models for each of the 6 variables. The CFI indices for all of the 6 variables in the two samples were above the 0.9 level, which indicates evidence of unidimensionality (Sureshchandar et al., 2002).

Third, Squared Multiple Correlations (R^2) for each measurement item, composite reliability, and variance extracted for each factor were used in the two samples to test the construct reliability (Hair et al., 1995). In sample 1, the first run of the measurement model showed that the R^2 for the majority of measurement items was greater than 0.5, which indicated a good reliability level. Five items, however, were deleted as the R^2 values were less than 0.5. In the second run of testing the

measurement model $_R^2$ values for all measurement items were greater than 0.5. The values of composite reliability, variance extracted (Fornell & Larker, 1981), was a little less than the minimum acceptable values which are 0.7, 0.5 respectively (see Table 1) (Hair et al., 1995), indicating the reliability of the measures, which consequently yielded very consistent results (Zikmund, 2003). Then, we ran the modified measurement model over sample 2, $_R^2$ values for all measurement items, the values of composite reliability, variance extracted were also a little less than the acceptable values (see Table 1). Fourth, evidence of convergent validity was obtained as the measurement items represented their factors significantly; the critical ratio of every item exceeded the 1.96 value (Anderson & Gerbing, 1988).

Structural model

Evaluating the models in the last section reduced the data and resulted in a manageable number of valid and more reliable measurement items which were then used to evaluate the structural models in this section (Kline, 1998). This section reports the results of the estimation of the structural models proposed in this study over the two samples. Goodness-of-fit measures of the main models over the two samples are presented in Table 2. The same goodness-of-fit indices which were used to assess the measurement models were used to evaluate the two structural models. The fitness indices for both models indicated that the two models fitted well with the survey data. All the overall goodness-of-fit statistics were within an acceptable range. These results were also supported by the values of CFI and the other indices of fit which were all close to the desired level, thus indicating support for the models. Overall, these results suggested that the two main models can be assessed as being adequate.

Having established the final structural equation model, it was possible to evaluate the hypotheses developed for this study. These hypotheses can be evaluated by closely examining the path coefficients and the significance levels among the constructs in the models. Examination of the model over the first sample revealed that three of the five paths were significant, while in the other sample the model had only two significant paths. The significance of these paths and the standardised regression weights are presented in Table 2.

Table 1: Composite reliability and variance extracted for each factor over the two samples

Variable name	Sample 1				Sample 2			
	λi	εi	Composite reliability	Variance extracted	λi	εi	Composite reliability	Variance extracted
Product uncertainty			0.7	0.3			0.6	0.21
Changes in production process	.842	1.135			.372	1.39		
New product introductions	.729	1.802			.542	1.14		
Changes in quality	.776	1.274			.720	.897		
Product changes	.810	1.124			.716	.915		
Product demand	.634	1.867			.416	1.5		
Client' preferences	.703	1.543			.551	1.48		
Competition uncertainty			0.70	0.41			.71	.46
Changes in strategies	.757	1.498			.836	.745		
Changes in markets	.923	.528			.961	.184		
Changes in prices	.834	1.071			.649	1.47		
Economic Uncertainty			0.65	0.31			0.61	0.28
Results of economic restructuring	.829	1.125			.709	1.236		
Interest rate	.839	1.192			.669	.876		
Exchange rate	.732	1.584			.780	1.48		
Inflation rate	.779	1.625			.631	1.36		
Government policy uncertainty			0.71	0.21			067	.27
Tariffs on imported goods	.810	1.355			.643	1.711		
National laws	.864	.918			.833	.823		
Legal regulations	.762	1.501			.824	.757		
pricegov	.712	1.819			.680	1.440		
Monetary policy	.798	1.503			.647	1.440		
taxpol	.790	1.903			.585	2.527		
Hostility			0.65	0.40			0.42	0.2
Manipulation	.745	1.426			0.707	1.04		
Richness	.897	.650			0.606	1.34		
Safety	.817	1.214			0.473	2.04		
Performance			0.76	0.34			0.82	0.42
Efficiency	.601	.917			.863	.861		
Quality	.559	.718			.875	1.071		
New product	.706	1.457			.785	1.648		
Growth	.802	.639			.809	.701		
Market share	.746	.810			.592	.774		
Profit	.710	.939			.614	.377		
ROA	.672	1.223			.635	.424		

In the first sample, the analysis shows that product uncertainty has a negative significant relationship with organizational performance. However, competition and economic uncertainty factors have no relationship with organizational performance. Government policy uncertainty has a positive influence on organizational performance. Accordingly, hypothesis 1 was rejected. In the second sample, only product uncertainty has a negative significant relationship with organizational performance, disconfirming hypothesis 1. However, hostility has a negative influence on organizational performance over the two samples, supporting hypothesis 2.

Table 2: Results of structural equation analysis for the suggested conceptual models

The relationships between variables	The original theoretical model Sample 1	The original theoretical model Sample 2
Product uncertainty → performance	-0.265*	-0.384*
Competition uncertainty → performance	Not significant	Not significant
Economic uncertainty → performance	Not significant	Not significant
Government policy uncertainty → performance	0.274*	Not significant
Hostility → performance	-0.399**	-0.449*
x^2	904	632
df	362	362
x^2/df ratio	2.5	1.75
CFI	0.87	0.8
R^2 (performance)	0.224	0.307

* p<0.05; ** p<0.01

Managers' perception of environmental uncertainty and hostility in Egypt and UAE

The last goal of this research is to assess whether there are any significant differences between the managers' perception of product uncertainty, competition uncertainty, economy uncertainty, governmental policy uncertainty, and environmental hostility over the two samples. Accordingly, the two datasets were combined into one database. A new variable "group" was added to the new merged sample in which sample 1 and sample 2 subjects were coded as 1 and 2 respectively. *Independent*

sample t-tests were then used to compare the means of the two independently sampled groups. The results of the one independent sample test are shown in Table 3. The analysis shows that Egyptian managers perceive competition uncertainty, economy uncertainty, governmental policy uncertainty, and environmental hostility factors as significantly higher than do UAE managers, as $p<.01$. Accordingly, proposition 1 was supported. However, it is worth noting that, although the mean of product uncertainty perceived by Egyptian managers was greater than that perceived by UAE managers, there was no significant difference between the means of the two groups, as $p= 0.614$.

Table3: One sample t-test results

Variables	Sample 1	Sample 2	p
Product uncertainty	3.0305	2.9462	.614
Competition uncertainty	3.9930	3.4265	.006
Economic uncertainty	4.8327	3.3441	000
Government policy uncertainty	4.8480	3.6774	000
Hostility	3.5949	2.7862	000

CONCLUSION

The aim of this study was to investigate the influence of environmental uncertainty and hostility on organizational performance and to assess whether there are any significant differences between Egyptian and UAE managers' perception of the above two environmental attributes. Subsequently, this paper proposed a conceptual model which was empirically validated by perceptual data collected from managers of different industries in Egypt and UAE. This paper found that there is no overall relationship between environmental uncertainty and organizational performance over the two samples. However, product uncertainty is the only environmental uncertainty factor over the two samples that has a negative relationship with organizational performance. At the same time, environmental hostility has a negative influence on organizational performance over the two samples. Finally, the Egyptian managers perceive environmental uncertainty and hostility as significantly higher than do the UAE managers.

One interesting finding in this research is the positive influence of the government policy uncertainty factor on organizational performance in the Egyptian setting. It is worth noting that the average of uncertainty associated with government policies in

the Egyptian sample was greater than the average of other aspects of environmental uncertainty. Hence, we may conclude that Egyptian managers were inclined to consider government policy uncertainty as a matter of concern. Given this, a possible explanation of the above finding is that the perception of high levels of uncertainty associated with governmental policies may lead managers to take action to deal with this uncertainty. This action in turn may enhance organizational performance. Further research is required first to validate this result and second to explain it further.

Given the exploratory nature of this study, some noteworthy results should be highlighted. First, the various aspects of environmental uncertainty may play different roles in organizational outcomes, even in the same organization or industry. Therefore, researchers should take this into account when incorporating environmental uncertainty in any future research. Second, compared to environmental uncertainty, environmental hostility-munificence is a significant predictor of performance. Although this environmental factor is a critical aspect of a firm's environment, it has received relatively little attention from researchers. Therefore, previous research provides very little direction on questions related to hostility-munificence, in spite of its important normative implications for managerial practices. This opens another promising avenue for future research.

Third, the perceived environmental uncertainty and hostility scales allow the identification of the countries which executives perceive to be relatively uncertain or hostile. However, this is not enough in itself. To take full advantage of the practical utility of the executives' perception of their organizational environment, we need to examine how this perception influences different aspects of managerial and organizational practices (e.g. organizational structure, firm strategy, participation and decision processes) and subsequently organizational success (e.g. economic performance, decision quality). For example, how should executives formulate strategies under conditions of high levels of hostility? Another interesting question, raised by Daft & Lengel (1986), is how organizations should structure their information systems in order to make strategic decisions under higher levels of environmental uncertainty. Answering such questions would deepen our capacity to deal with different environmental conditions. This requires researchers to incorporate perceived environmental uncertainty and hostility scales to examine their practical

implications for other managerial and organizational practices. Such a line of research could help executives to deal effectively with different forms of environmental uncertainty.

A major shortcoming of this study is some of the statistical outcomes. The structural equation model fit indices, the composite reliability, and the validity indicators were modestly lower than the acceptable statistical levels. However, avoiding this limitation was difficult, due to our new study settings. Though this limitation may lessen the possibility of generalizing the findings beyond the present samples, it had little impact on results since there was no significant difference between the hypothesised relationships over the two samples. However, the research outcomes should be taken cautiously and new samples in the same countries or elsewhere should be conducted to validate our results. Another limitation was that our simple causal model of the relationship between environment and performance may not be adequate, and there is in fact a need for alternatives approaches to the issue of causality (cf. Dastmalchain, 1986). For example, the research hypotheses and proposition can be investigated more thoroughly by incorporating other control variables and/or moderators. Finally, an important implication of this study is that it alerts senior managers to the importance of paying attention to the impact which their perception of environmental attributes makes on organizational performance.

References

Al-hawari, M. 2006. The impact of automated service quality on financial performance and the mediating role of customer retention. ***Journal of Financial Service Marketing***, 10(3): 228-243.

Alkaraan, F., & Northcott, D. 2006. Strategic capital investment decision-making: A role for emergent analysis tools? A study of practice in large UK manufacturing companies. ***The British Accounting Review***, 38(2): 149-173.

Anderson, J., & Gerbing, W. 1988. Structural equation modelling in practice: A review and recommended two stage approach. ***Psychological Bulletin***, 27(1): 5-24.

Baack, D. W., & Boggs, D. J. 2008. The difficulties in using a cost leadership strategy in emerging markets. ***International Journal of Emerging Markets***, 3(2): 125 - 139.

Baum, J. R., & Wally, S. 2003. Strategic decision speed and firm performance. ***Strategic Management Journal***, 24: 1107-1129.

Bourgeois, L. J. 1980. Strategy and environment: A conceptual integration. ***Academy of Management Review***, 5: 25-39.

Buchko, A. 1994. Conceptualization and measurement of environmental uncertainty: An assessment of the Miles and Snow perceived environmental uncertainty scale. ***Academy of Management Journal***, 37(2): 410-425.

Calori, R., Johnson, G., & Sarnin, P. 1994. CEOs' cognitive maps and the scope of the organization. ***Strategic Management Journal***(15): 437-457.

Castrogiovanni, G. 1991. Environmental munificence: A theoretical assessment. ***Academy of Management Review***, 16(3): 542-565.

Covin, J. G., & Covin, T. J. 1990. Competitive aggressiveness, environmental context and small firm performance. ***Entrepreneurship Theory and Practice***, 14 (4): 35-49.

Daft, R. L., & Lengel, R. H. 1986. Organisational information requirements, media richness and structural design. ***Management Science***, 32(5): 554-571.

Dastmalchain, A. 1986. Environmental characteristics and organisational climate: An exploratory study. ***Journal of Management Studies***, 23(6): 609-633.

Dess, G. G., & Beard, D. W. 1984. Dimensions of organizational task environments. ***Administrative Science Quarterly***, 29: 52-73.

Duncan, R. B. 1972. Characteristics of organizational environments and perceived environmental uncertainty. ***Administrative Science Quarterly***, 17: 313-327.

Edelstein, J. Y. 1992. ***Adjustment and decline in hostile environments***. New York: Garland Publishing.

Elbanna, S. 2006. Strategic decision making: Process perspectives. ***International Journal of Management Reviews***, 8(1): 1-20.

Elbanna, S. 2007. ***An assessment of the Miller perceived environmental uncertainty measure in the Egyptian manufacturing sector***. Paper presented at the Oxford Business and Economics Conference, Oxford University, Oxford, the UK.

Elbanna, S. 2008. Planning and participation as determinants of strategic planning effectiveness: Evidence from the Arabic context. ***Management Decision***, 46(5): 779-796.

Elbanna, S. 2009. The impact of affective conflict on firm performance. ***Management Research Review***, 32(9): 789 - 803.

Elbanna, S. 2010. ***Making strategic decisions: A state of the art review and empirical evidence from a cultural perspective***. Dudweiler Landstr: Lambert Academic Publishing.

Elbanna, S., & Child, J. 2007. Influences on strategic decision effectiveness: Development and test of an integrative model. ***Strategic Management Journal***, 28: 431-453.

Elbanna, S., & Gherib, J. forthcoming. Miller's environmental uncertainty scale: An extension to the Arab world. ***International Journal of Commerce and Management***.

Elbanna, S., & Naguib, R. 2009. How much does performance matter in strategic decision-making? ***International Journal of Productivity and Performance Management***, 58(5): 437-459.

Fornell, C., & Larker, D. 1981. Evaluating structural equation models with unobserved variables and measurement errors. ***Journal of Research Marketing***, 27(3): 445-466.

Fredrickson, J. W. 1985. Effects of decision motive and organizational performance level on strategic decision processes. ***Academy of Management Journal***, 28(9): 821-843.

Galbraith, J. 1977. ***Designing complex organisations***. Reading, Mass: Addison-Wesley.

Goll, I., & Rasheed, A. A. 1997. Rational decision-making and firm performance: The moderating role of environment. ***Strategic Management Journal***, 18(7): 583-591.

Hair, J. F., Anderson, R., Tatham, R., & Black, W. C. 1995. ***Multivariate data analysis with readings*** (1st ed.). London: Prentice-Hall.

Hickson, D. J., Butler, R. J., & Wilson, D. C. 2001. ***The Bradford studies of strategic decision making***. Aldershot: Ashgate.

Hisrich, R., Peter, M., & Shepered, D. 2008. ***Entrepreneurship*** (7th ed.). Singapore: McGraw Hill.

Hodge, B. J., Anthony, W. P., & Gales, L. M. 2003. ***Organization theory: A strategic approach*** (Sixth ed.). New Jersey: Prentice Hall.

Hough, J. R., & White, M. A. 2003. Environmental dynamism and strategic decision-making rationality: An examination at the decision level. ***Strategic Management Journal***, 24: 481-489.

Hrebiniak, L. G., & Snow, C. C. 1980. Industry differences in environmental uncertainty and organizational characteristics related to uncertainty. ***Academy of Management Journal***, 23: 750-759.

Hunt, D. M., & At-Twaijri, M. I. 1996. Values and the Saudi manager: An empirical investigation. ***Journal of Management Development***, 15(5): 48-55.

Kaplan, R. S., & Norton, D. P. 1992. The balanced scorecard-measures that drive performance. ***Harvard Business Review***, January-February: 71-79.

Khandwalla, P. N. 1977. ***The design of organizations***. New York: Harcourt Brace Jovanovich.

Kline, B. 1998. ***Principles and practices of structural equation modelling***. New York: Guilford Press.

Kotha, S., & Nair, A. 1995. Strategy and environment as determinants of performance: Evidence from the Japanese machine tool industry ***Strategic Management Journal***, 16(7): 497-518.

Lawrence, P. R., & Lorsch, J. W. 1967. ***Organization and environment: Managing differentiation and Integration***. Harvard, MA: Harvard University.

Lewis, G. J., & Harvey, B. 2001. Perceived environmental uncertainty: The extension of Miller's scale to the natural environment. ***Journal of Management Studies***, 38(2): 201-233.

Lonial, S., & Raju, P. 2001. The impact of environmental uncertainty on the market orientation-performance relationship: A study of the hospital Industry. ***Journal of Economic and Social Research***, 3(1): 5-27.

McArthur, A. W., & Nystrom, P. C. 1991. Environmental dynamism, complexity and munificence as moderators of strategy-performance relationships. ***Journal of Business Research***, 23: 349-361.

Miles, R. E., & Snow, C. C. 1978. ***Organizational strategy, structure, and process*** New York: Mc-Graw-Hill.

Miller, C. C., Burke, L. M., & Glick, W. H. 1998. Cognitive diversity among upper-echelon executives: Implications for strategic decision processes. ***Strategic Management Journal***, 19: 39-58.

Miller, D., & Friesen, P. H. 1983. Strategy making and environment: The third link. ***Strategic Management Journal***, 4: 221-235.

Miller, K. D. 1993. Industry and country effects on managers' perceptions of environmental uncertainties. ***Journal of International Business Studies***, 24(4): 693-714.

Milliken, F. J. 1987. Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. ***Academy of Management Review***, 12(1): 133-143.

Mueller, G. C., Mone, M. A., & Baker III, V. L. 2000. Strategic decision making and performance : Decision processes and environmental effects. ***Academy of Management Proceedings***: N1-N6.

Mukherji, A., & Hurtado, P. 2001. Interpreting, categorizing and responding to the environment: The role of culture in strategic problem definition. ***Management Decision***, 39(2): 105-112.

Rajagopalan, N., Rasheed, A. M. A., & Datta, D. K. 1993. Strategic decision processes: Critical review and future directions. ***Journal of Management***, 19(2): 349-385.

Shane, S., & Kolvereid, L. 1995. National environment, strategy, and new venture performance: A three-country study. ***Journal of Small Business Management***, 33(2): 37-50.

Specht, P. H. 1993. Munificence and carrying capacity of the environment and organization formation. ***Entrepreneurship Theory and Practice***, 17(2): 77-86.

Sureshchandar, G., Rajendran, C., & Anantharaman, R. 2002. Determinants of customer-perceived service quality: A confirmatory factor analysis approach. ***Journal of Services Marketing***, 16(1): 9-34.

Tosi, H. L., & Slocum, J. W. 1984. Contingency theory: Some suggested directions. ***Journal of Management***, 10: 9-26.

Venkatraman, N., & Ramanujam, V. 1986. Measurement of business performance in strategy research: A comparison of approaches. ***Academy of Management Review***, 11(4): 801-814.

Wan, W. P., & Hoskisson, R. E. 2003. Home country environments, corporate diversification strategies, and firm performance. ***Academy of Management Journal***, 40(1): 27-45.

Werner, S., Brouthers, L. E., & Brouthers, K. D. 1996. International risk and perceived environmental uncertainty: The dimensionality and internal

consistency of Miller's measure. ***Journal of International Business Studies***, 27(3): 571-587.

Zahra, S. A., Neubaum, D. O., & Huse, M. 1997. The effect of the environment on export performance among telecommunications new ventures. ***Entrepreneurship Theory and Practice***, 22(1): 25-46.

Zikmund, W. 2003. ***Business research methods*** (7th ed.). Australia: South Western.