Organizational Culture and Sustainable Competitive Advantage in Manufacturing Companies in Bahrain

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Abstract: This study examines the effects of the four types of organizational culture (clan culture, adhocracy culture, market culture, and hierarchy culture) on the sustainable competitive advantage in small, medium and large-sized manufacturing companies in Bahrain. A cross-sectional survey was utilized in this study using a self-administered questionnaire to collect the data. The total number of usable questionnaires were 159 with a response rate of 75.4%. The results indicated that the three types of organizational culture - adhocracy culture, market culture, and hierarchy culture - have significant and positive effects on sustainable competitive advantage. However, the results showed that there is no definite effect regarding clan culture on sustainable competitive advantage in all types of manufacturing companies.

Keywords: Sustainable Competitive Advantage, Organizational Culture, Clan Culture, Adhocracy Culture, Market Culture, Hierarchy Culture

1 Introduction

Business organizations have long soughtto compete in a complex and challenging environment that is being transformed by many factors such as technological development and globalization [1]. Competing in this complex environment requires the use of strategic management in order to understand the sources and capabilities that enable an organization to generate above-normal rates of return and sustain the competitiveness of the organization [2]. In this context, organizational culture and its components such as values, assumptions, beliefs, and symbols have important effects on an organization?s sustainable competitive advantage and can be sources of this competitiveness [3]. According to Sadri and Lees [4], people come from diverse backgrounds and cultural heritages which manifest themselves in an infinite diversity of ways. The consequent dominant set of norms, which give rise to the organizational culture, will guide the way in which works are accomplished within an organization. In a situation in which the organizational culture is positive and strong, it will be a significant source of sustainable competitive

advantage [4], [6]. This relationship has increasingly attracted the attention of researchers. For example, Cameron and Quinn [7]classified an organization?s culture into four types - clan culture, adhocracy culture, hierarchy culture and market culture. This classification cameas an initial step towardsan understanding of an organization?s sustainable competitiveness [7][8][9].Researchers and scholars have indicated that these four types of culture could lead an organization to achieve sustainable competitive advantage in a complex environment [10] [11] [12]. Hence, the objective of this study is to examine the effects of the four types of organizational culture on sustainable competitive advantage in manufacturing companies in Bahrain.

2 Literature Review

2.1 Sustainable competitive advantage

Sustainable competitive advantage is the long-term benefit associated with the implementation of a unique value-creating strategy which competitors cannot

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implement and duplicate in such a way as to achieve similar benefits [13]. Hitt, Ireland and Hoskisson [14] pointed out that sustainable competitive advantage is achievedwhen rivals in an industry cannot duplicate the benefits of the organization?s strategy, and when they do not havesufficient resources to imitate it. Additionally, Barney [15], [16] suggested the use of the VRIN framework and the VRIO framework, where the resources and capabilities of an organization must have four characteristics and attributes. These characteristics are value, rarity, imitability, and organization [17]. The business literature showedthat resources, capabilities, competencies, core competencies, and distinctive competencies are sources of sustainable competitive advantage [2],[9],[18][19][20][21]. In particular, capabilities are the main factors which deploy resources and convert them into the final goods and service [22]. A bundle of such capabilities should then be collected and converted into competencies to make them more valuable and essential in terms ofdelivering customer benefit and offering new patterns of product [22], [25]. Hitt, Ireland and Hoskisson [14] debated that those capabilities that are valuable, rare and costly in terms of being imitated, and which are non-substitutable, are competencies. Achieving a sustainable competitive advantage also needs the organization to promote those competencies that are core and distinctive, and which provide the organization with a potential competitive edge [24], [25].

2.2 Organizational culture

Organizational culture has been defined as a pattern of assumptions that are shared by people in an organization[26]. From another perspective, organizational culture refers to the system of shared values, beliefs, and assumptions that show employees what is appropriate and inappropriate behavior [27] is. Organizational culture has been seen as one of the important assets when it comes to improving employee morale, work life, financial performance, innovation, communication, relationships, and decision making [26], [27]. According to the competing values framework (CVF)as illustrated in Figure 1 and which was developed by Cameron and Quinn [7], organizational culture can take four forms: clan culture, adhocracy culture, hierarchy culture and market culture. The clan culture emphasizes flexibility/internal focus where training and development employees are utilized to achieve cohesion and boost employee morale [29]. According to Cameron and Quinn [7], this type of culture focuses on teamwork, corporate commitment, and employee involvement programs more than on rules, procedures, and competitiveness in the market. In addition, Dani and others [30], summarized that this kind of culture focuses on internal maintenance involving a consideration of flexibility, employee concerns, and customer sensitivity. The adhocracy culture has a flexible/external focus by which the organization
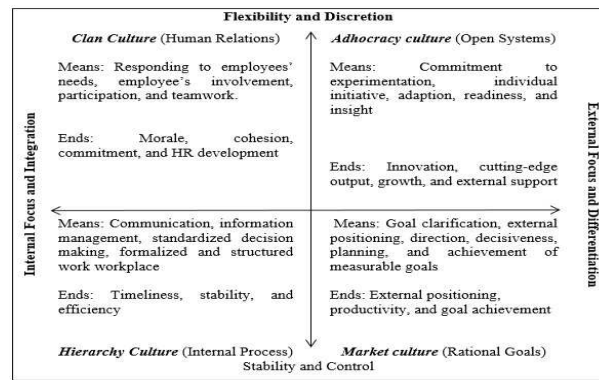

Fig. 1: A competing values framework (CVF) of organizational effectiveness Sources:[7][8]

exploits readiness and adaptability in terms of achieving growth, external support, and resource acquisition [29]. Market culture is oriented towards the external environment of the organization with a need for stability and control. Moreover, this type of culture focuses on suppliers, contractors, customers and unions [7]. Moreover, Igo and Skitmore [31] declared that a market culture is directed towards clear and rational goals. Additionally, the market culture is concerned with getting the job done and maintaining value competitiveness, perfectionism, aggressiveness and personal initiative [31].Finally, the hierarchy culture has a control/internal focus, and emphasizes formalization, behavior regulation and taking care of employees? security [32]. Additionally, a hierarchy culture focuses on formalization and organizational structure, high levels of leadership co-coordination, taking care of employees? security, using standardized rules, and having well-defined responsibilities [7]. This culture is identified through the focus on the use of fixed rules and procedures which maintain the stability of the organization [8]. These types of culture are fomented by the business environment. For example, a clan culture exists when the business environment is very sociable, and an adhocracy culture would be appropriate when the environment is creative and energetic. Additionally, themarket cultureexists when the environment focuses on the result and goals, while the hierarchy culture fits when the environment is formalized and structured [33].

3 Organizational Culture and Sustainable Competitive Advantage in Bahrain

Bahrain is the least oil-dependent nation comparing with its regional peers [34]. National efforts have been madeto increase the degree ofsustainable competitive advantage on the part of the manufacturing sector. In spite of these national effortshowever, the competitiveness of the

manufacturing sector has remained fairly static. Moreover, this sectorhas shown a degree of its weakness when it comes to resisting the oil and gas declination in the last few years [33][34][35][36]. According to the Bahrain Economic Development Board [38], the weakness with regard tothe manufacturing sector?s sustainable competitive advantage is indicated by the continuing deceleration rate of this sector in 2015 and 2016. Additionally, the Market Gap Study [39] illustrated a clear decline in the sustainability of competitive advantage of the main Bahraini industries such as the food, garment and engineering industries. The sustainable competitive advantage is negatively affected by the limited availability of resources, low effectiveness in terms of cost management, and low value added [39].

As a part of the national effort to strengthen sustainable competitive advantage, the Bahrain government has strived to support the organizational culture of local companies as a key to empowering the people who should be active in sustaining the degree of competitive advantage. However, the gap between sustainable competitive advantage and organizational culture may grow more due to a number of weaknesses and constraints that exist in terms oforganizational culture [39][40].

Organizational culture is necessary as one of the key sources of sustainable competitive advantage [5]. This point of view is based on the fact that the organizational culture influences the behaviors and decisions of the individuals within an organization [32]. However, the weaknesses and the constraints are many in the organizational culture in Bahrain, such as poor work ethics, negative employee perceptions, and low commitment in terms of responsibilities [39][40]. Additionally, these weaknesses have resultedina high rate of absenteeism, non-qualified staff and a lack of competency in recruitment teams when it comes to hiring the right people [40].

Previous studies have indicated the weakness of sustainable competitive advantage and the low level of organizational culture. Moreover, these studies did notexamine the direct relationship between the organizational culture and sustainable competitive advantage [35][39][40][41][42]. Therefore, this study aims to address this gap by determining the effects of the four types of organizational culture on the sustainable competitive advantage in manufacturing companies in Bahrain.
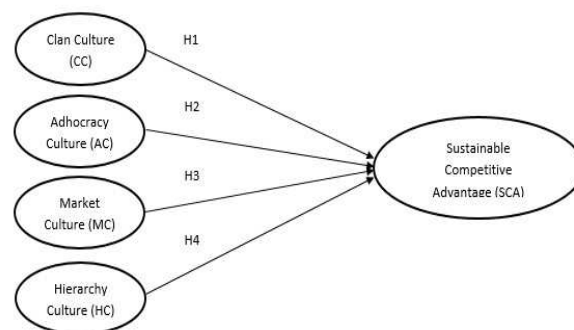

Fig. 2: The research framework

4 Research Framework and Hypotheses

4.1 Research Framework

The research framework in this study is shown in Figure 2. This explains the relationship betweentwo sides. The first side is the four types of the organizational culture as independent variables: clan culture (CC), adhocracy culture (AC), market culture (MC), and hierarchy culture (HC). The second part is the sustainable competitive advantage (SCA) as thedependent variable.

4.2 Research hypotheses

Several scholars have stated that organizational culture can be a source of sustainable competitive advantage [44][45]. Additionally, Cameron and Quinn's[7]competing value framework (CVF) was proposedas a means of explaining organizational effectiveness and competitiveness. Beyond that, this framework can help the organization to know the characteristics of the existing culture and how to manage the culture in such a way as to support sustainable competitive advantage [6][7][45][46][47]. Based on the above discussion and the research framework, it was hypothesized that the four types of organizational culture have significant effects on the sustainable competitive advantage in the manufacturing companies in Bahrain. In particular, the following hypotheses were proposed:

H1: Clan culture has significant effectson the sustainable competitive advantage in the manufacturing companies.

H2: Adhocracy culture has significant effectson the sustainable competitive advantage in the manufacturing companies.

H3: Marketing culture has significant effectson the sustainable competitive advantage in the manufacturing companies.

H4: Hierarchy culture has significant effectson the sustainable competitive advantage in the manufacturing companies.

5 Methodology

The target population for the study was 466 SMEs and large manufacturing companies inBahrain (237 small-sized companies, 166 medium-sized companies, and 62 large-sizedcompanies) listed in the Industrial Companies Directory [49].To calculate the sample size, the researcher referred to Krejcie and Morgan's [50] arithmetical equation which is as follows:

$$S = x^2 NP(1-P)d^2(N-1) + x^2 P(1-P)$$

The result,which was confirmed by Sekaran's [**?**] technique, led to211 (45.27%) companies being chosen randomly from the target population. A cross-sectional survey was conductedas part of this study using a self-administered questionnaire. The questionnaire was divided into three parts. Part A focused on the respondents? demographic profile. Part B measured the four types of organizational culture as independent variables, while partC measured sustainable competitive advantage as a dependentvariable. The measurement scale of the organizational culture comprises 24 items. All these items were adapted fromCameron and Quinn [7]. The measurement scale in terms of sustainable competitive advantage was adapted from Mahdi [20] who developed this measurement scale after referring to Barney [15][16]. This scale used 20 items to measure sustainable competitive advantage.A5-point Likert scale was employedto provide the interval scalein the last three sectionsrangingfrom ?Strongly Agree? on the positive side to ?Strongly Disagree? onthe negative side.The questionnaires were addressed to the top management of the manufacturing companiesrather than subordinates.

After the completion of the survey and a review of the returned questionnaires, 15 were excludedand5 questionnaires were classified as outliers. Consequently, the total number of completed and usable questionnaires was 159, indicating a response rate of 75.4% (159/211*100). According to the classification of the Ministry of Industry [49], these questionnaires were collected from 38 large-sized companies (23.9%), 55 medium-sized companies (34.6%), and 66 small-sized companies (41.5%). The collected data were processed and analyzed using SPSS and SmartPLS software.

6 Results and Discussions

6.1 Respondents' demographic profile

Male respondents made up 86.2% of the total, while females made up 13.8% of the respondents. The survey required respondents to specify their age. According to the results, it was found that 24.5% of the respondents were 36 to 40 years of age, 20.1% were 31 to 35 years, 17.6% were 26 to 30 years, 17]% were more than 45 years of age, 13.8% were 41 to 45 years old, and 6.9% were less than 26 years of age.Regarding the educational level of the respondents, the results showed that 20.8% of the respondents had a secondary or diploma level of education, 55.3% had a Bachelor degree, 22.6% had a Masters? degree, and 1.3% had a Ph.D. Referring to the respondents? working experience in the current company, 27% had 6 to 10 years? experience, 24.5% had less than 6 years? experience, 24.5% had more than 15 years? experience, and 23.9% had 11 to 15 years? experience. Finally, the respondents gave details of their current position. It was found that 68.6% were managers, and 31.4% were CEOs or Managing Directors.

6.2 Assessment of the normalityof the data and descriptive analysis

The results indicate that the skewness and kurtosis of all 44 items of the studied variables lay between ±2 and ±7 respectively. Hence, the data set of all items were well-modeled by a normal distribution. Moreover, to give a better understanding of the variables, and to summarize the overall trends in the collected data, the researcher made use of descriptive analysis as illustrated in Table 1,involving the means, standard deviations, and minimum and maximum values as measured on a 5-point Likert scale.

As one of the measures of central tendency, the mean was computed. The results, as seen in the above table, ranged between 3.459 and 3.893. The results indicated that the mean values of all constructs were above their mid-point level of 3 (considering 3 is the mid-point of the 5-point Likert scale). These results mean that respondents? perceptionswith regard tothe study?s variables were above the average.

6.3 Validity and reliability

Validity was assessed for the constructs of the current study. The validity indicated that the respondents? scores from the questionnaire were significant and meaningful [52]. For validity purposes, the Average Variance Extracted (AVE) was measured. The AVE is calculated by dividing the sum square of the standardized factor loading by the factor loading number [54]. Convergent validity has been employed to analyze the first-order constructs in terms ofthe organizational culture and sustainable competitive advantage. Regarding organizational culture,the analysis includes four constructs: clan culture (CC), adhocracy culture (AC), market culture (MC), and hierarchy culture (HC). The result, which are illustrated in Table 2, indicated that the values of the factor loadings of the three items (CC6, MC1, HC3) were below the cut-off of 0.6 [54]. These items were removed from the model as recommended by Hair et al. [54]. The factor

Table 1: Descriptive statistic for variables

| Constructs	Mean	StandardDeviation	Minimum	Maximum
ClanCulture(CC)	3.715	1.067	1.2	4.8
AdhocracyCulture(AC)	3.846	0.975	1.5	4.8
MarketCulture(MC)	3.893	0.979	1.4	4.8
HierarchyCulture(HC)	3.708	0.968	1.4	4.8
SustainableCompetitiveAdvantage	3.623	0.852	1.6	4.8
Resource(RES)	3.727	1.068	1	4.8
Capabilities(CAP)	3.668	1.051	1	4.8
Competencies(CO)	3.527	0.996	1.3	4.8
CoreCompetencies(CCO)	3.581	1.098	1	4.8
DistinctiveCompetencies(DCO)	3.628	1.052	1	4.8

loading values of the remaining items wereabove 0.6, ranging from 0.847 to 0.917. To confirm the above validity, the values of average variance extracted (AVE) were measured. The results of the AVE came higher than the recommended cut-off of 0.5 [53][54]. Regarding the second variable (sustainable competitive advantage), the validity was measured and the results shown in Table 3. The values of the factor loadings of all items obviously ranged from 0.891 to0.935, and were set above the recommended cut-off value. Regarding the validity, all values of average variance extracted (AVE) were above 0.5.

The reliability was measured in this study. Reliability means that the collected findings are stable and constant when the instrument is employed multiple times at different times [52]. The reliability was measured in the current study by the internal consistency assessment using Cronbach?s alpha and composite reliability (CR) measures. Cronbach?s alpha is a statistical technique to provide a measure of the internal consistency of a scale, and to find out the extent to which all the items in the test measure the same construct [55]. Additionally, the CR value is extracted from the square sum of factor loading and the sum of error variance term for a construct [56]. Regarding the reliability of the four types of organizational culture, the values of internal reliability, Cronbach Alpha and composite reliability (CR),wereassessed and displayed in Table 2. The results indicate that the values were greater than 0.6. These values indicated the adequacy of internal consistency [56][58][59].

Additionally, the reliability of sustainable competitive advantage was measured and presented in Table 3. According to the results, all values of Cronbach Alpha and composite reliability were above 0.6. Consequently, all items remained in the model.

7 Direct effects of constructs

To test the direct effects of the four types of organizational culture on sustainable competitive advantage, the coefficient parameters wereexamined. The
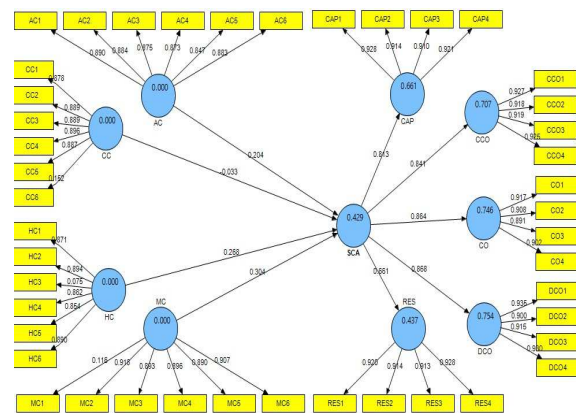
Fig. 3: Path coefficient results between the studied variables in all companies

path coefficients of the direct effects between the variables in all-sized companies are displayed in Figure 3.Moreover, the path coefficients and the results of the examining hypothesized direct effects were illustrated as follows:

The values of R2 for sustainable competitive advantage (SCA) was 0.429. This value indicates that 43% of variations in sustainable competitive advantage (SCA) were explained by its four predictors. These predictors were clan culture, adhocracy culture, market culture and hierarchy culture. The overall results show that the R value satisfied the requirement for the 0.30 cut off value [60].

7.1 H1: Clan culture has significant effects on the sustainable competitive advantage in the manufacturing companies

Table 4 illustrates that the t-value and the p-value of the clan culturein predicting the sustainable competitive

Table 2: Convergent validity and reliability of organizational cultures

Construct	Item	Factor Loading	Average Variance Extracted $(AVE)^a$	Composite Reliability $(CR)^b$	Internal Reliability Cronbach Alpha
Clan Culture(CC)	CC1	0.896	0.827	0.960	0.948
	CC2	0.916			
	CC3	0.906			
	CC4	0.916			
	CC5	0.912			
	CC6	0.153^c			
Adhocracy Culture(AC)	AC1	0.890	0.767	0.952	0.939
	AC2	0.884			
	AC3	0.875			
	AC4	0.873			
	AC5	0.847			
	AC6	0.883			
Market Culture (MC)	MC1	0.116^c	0.812	0.956	0.942
	MC2	0.917			
	MC3	0.893			
	MC4	0.897			
	MC5	0.891			
	MC6	0.907			
Hierarchy Culture(HC)	HC1	0.871	0.765	0.942	0.923
	HC2	0.895			
	HC3	0.075^c			
	HC4	0.862			
	HC5	0.854			
	HC6	0.890			

$$a: AVE = \sum \lambda_i \frac{2}{n}, \ b: CR = \frac{(\sum k)^2}{[(\sum k)^2 + (\sum l - k^2)]}$$

$c : denotes discarded item due to an insufficient factor loading (below 0.6)$

advantage were 1.4881 and 0.136 respectively in all manufacturing companies. The probability (p-value) was 0.136, and more than 0.05. This p-valuerepresented the instance of obtaining the extreme or the larger value of t, which was 1.4881. This result indicated that the regression weight for the clan culturein the prediction of sustainable competitive advantage in all manufacturing companies wasnot significantly different from zero at the 0.136 level (two-tailed). Simultaneously, the p-values of clan culture in predicting the sustainable competitive advantage were 0.235 in small companies, 0.342in the medium companies, and 0.166 in the large companies. These results showed that the clan culture had no direct effects on the sustainable competitive advantage in all companies, whether they are small, medium or large. Therefore, H1 isrejected.

7.2 H2: Adhocracy culturehas significant effects on the sustainable competitive advantage in the manufacturing companies

The direct effects ofan adhocracy culture on the sustainable competitive advantage in the manufacturing

companies were examined and displayed in Table 5. The t-value and p-value of the adhocracy culturein predicting the sustainable competitive advantage were 6.9712 and 0.000 respectively in allmanufacturing companies. This result indicated that the regression weight for the adhocracy culture in the prediction of sustainable competitive advantage in all manufacturingcompanies was significantly different from zero at the 0.000 level (two-tailed).Additionally, the P-values ranged between 0.000 and 0.005 for all sizes of companies.Accordingly, this hypothesis is supported. The path coefficients in Table 2indicatepositive relationships between the adhocracy culture and the sustainable competitive advantage in all-sized manufacturing companies.

7.3 H3: Market culture has significant effects on the sustainable competitive advantage in the manufacturing companies

According to Table 6, the results of the direct effects ofthe market culture and sustainable competitive advantageindicated that the t-valuesof the market culturein predicting the sustainable competitive advantage

Table 3: Convergent validity and reliabilityin terms of sustainable competitive advantage

Construct	Item	Factor Loading	Average Variance Extracted $(AVE)^a$	Composite Reliability $(CR)^b$	Internal Reliability Cronbach Alpha
Resources(RES)	RES1	0.920	0.845	0.956	0.939
	RES2	0.915			
	RES3	0.913			
	RES4	0.928			
Capabilities(CAP)	CAP1	0.928	0.843	0.956	0.938
	CAP2	0.914			
	CAP3	0.910			
	CAP4	0.921			
Competencies(CO)	CO1	0.917	0.818	0.947	0.926
	CO2	0.908			
	CO3	0.891			
	CO4	0.902			
Core Competencies(CCO)	CCO1	0.927	0.850	0.958	0.941
	CCO2	0.918			
	CCO3	0.919			
	CCO4	0.925			
Distinctive Competencies(DCO)	DCO1	0.935	0.847	0.957	0.940
	DCO2	0.900			
	DCO3	0.915			
	DCO4	0.930			

c

$a: AVE = \sum \lambda_i \frac{2}{n}, b: CR = \frac{(\sum k)^2}{[(\sum k)^2 + (\sum l - k^2)]}$

Table 4: Examining the results of hypothesis 1

Organization Size	Path Coefficient	Standard Error	T-value	P-value	Hypothesis Result
All	-0.0326	0.0219	1.4881	0.136	H1 is not supported
Small	0.0305	0.0256	1.1912	0.235	H1 is not supported
Medium	-0.0224	0.0235	0.9523	0.342	H1 is not supported
Large	0.0295	0.0213	1.3901	0.166	H1 is not supported

$^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Table 5: Examining the results of hypothesis 2

Organization Size	Path Coefficient	Standard Error	T-value	P-value	Hypothesis Result
All	0.2042***	0.0301	6.9712	0.000	H2 is not supported
Small	0.0952**	0.0332	2.8696	0.005	H2 is not supported
Medium	0.1472***	0.0339	4.3488	0.000	H2 is not supported
Large	0.2783***	0.0266	10.470	0.000	H2 is not supported

$^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

were between 2.5493 and 12.939. Simultaneously, P-values were 0.000 in all-sizedcompanies.Hence, Hypothesis H3is supported. The path coefficient was 0.3043 in all companies, 0.3315 in the small companies, 0.2866 in the medium companies, and 0.3878 in the large companies. Thus, values indicated a positive relationship between the above independent and dependent variables.

7.4 H4: Hierarchy culture has significant effects on the sustainable competitive advantage in the manufacturing companies

Regarding this hypothesis, the results in Table7 showthat the p-values of the hierarchy culturein predicting the sustainable competitive advantage in all companies were0.000. Moreover, the t-value was 6.4027 in all companies, 3.4384 in the small companies, 8.111 in the medium companies, and 12.846 in the large companies.

Table 6: Examining the results of hypothesis 3

Organization Size	Path Coefficient	Standard Error	T-value	P-value	Hypothesis Result
All sizes	0.3043***	0.0368	8.4027	0.000	H3 is not supported
Small	0.3315***	0.0506	6.5493	0.000	H3 is not supported
Medium	0.2866***	0.0369	7.7682	0.000	H3 is not supported
Large	0.3878***	0.03	12.939	0.000	H3 is not supported

$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 7: Examining the results of hypothesis 4

Organization Size	Path Coefficient	Standard Error	T-value	P-value	Hypothesis Result
All sizes	0.2685***	0.0419	6.4027	0.000	H4 is not supported
Small	0.1909***	0.0556	3.4384	0.001	H4 is not supported
Medium	0.3217***	0.0397	8.111	0.000	H4 is not supported
Large	0.3087***	0.024	12.846	0.000	H4 is not supported

$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

These results indicated that the probability of getting t-values as large as 6.4027, 3.4384, 8.111 and12.846 in absolute value was 0.000. Ascan be seen, the path coefficients indicateda positive relationship between the hierarchy cultureand sustainable competitive advantage in all companies. Therefore, this hypothesisis supported.

8 Perspective

This study was conductedto examine the effects of the four types of organizational culture on the sustainable competitive advantage in small, medium and large manufacturing companies in Bahrain. Based on 159 usable questionnaires answered by the top management of these companies, the effects were assessedusing SPSS and SmartPLS. The findings indicated that the adhocracy culture, the market culture, and the hierarchy culture have significant and positive effects on the sustainable competitive advantage insmall, medium or large companies.These results support scholars? debates regarding the importance of the resource-based view in linking the above variables [5][6]. However, the results showed that the clan culture doesn?t have any positive effects on the sustainable competitive advantage. This study offersseveral implications for researchers and decision-makers in the manufacturing sector in Bahrain. Firstly, the empirical evidence of the study contributes significantly to the existing literature with regard toorganizational culture and sustainable competitive advantage. Secondly, the valuable results include numerous implications for further empirical research among researchers and scholars who are interested in either organizational culture or sustainable competitive advantage. Finally, while this study presentsevidence that organizational culture (adhocracy culture, market culture and hierarchy culture)act assources of sustainable

competitive advantage, decision-makers in these manufacturing companies should pay attention to supportingthese three types of organizational culture as a significant approach to sustaining the competitiveness of their companies.

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