Cultures of Adhocracy, Clan, Hierarchy and Market and Innovation Performance: A Case of Hotels in Turkey

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Abstract

Innovation is discussed as a critical element in the success of an organization but if an organization's culture does not support innovation it is unlikely to occur. So, it is very important for business to make the culture compatible with innovation. In this context, the study aims to examine the relationship between culture types (Adhocracy, Market, Clan, Hierarchy) and innovation performance in hotels, and basically argues that hotels demonstrate different innovation performances according to the their cultural features. To accomplish this aim, 1562 three, four and five-star hotels in Turkey were determined as research population and the sample is comprised of 310 of them. The questionnaire method was used to collect the data from hotel senior manager. The data were analyzed through LISREL program. Firstly, confirmatory factor analysis, relating to culture types and innovation performance, was conducted. Then, the relationships among these two constructs were examined. The findings show that there is a significant relationship between organizational culture features and innovation performance. The innovation performance of hotels, which have the characteristics of adhocracy culture and market culture, is more positive than the hotels with the clan culture and the hierarchy culture. So, it is suggested that hotels transform the existing culture into adhocracy culture and market culture to increase their innovation performance.

Keywords: Culture types (adhocracy, market, clan, hierarchy), tourism sector, hotel business, innovation performance

Introduction

Innovativeness has drawn interdisciplinary attentions for decades, because of the impact of innovation on firm performance and on economic growth (Deshpande and Farley, 2004). Some researches attempt to explain sustained superior performance and innovativeness of firms by focusing on their culture (Barney, 1986). In the literature there is a consensus on that culture is an important determinant of organizational innovativeness and plays important role in making an innovation successful (Dombrowski et al., 2007). Innovation is discussed as a critical element in the success of an organization but if an organization's culture does not support innovation it is unlikely to occur (Belassi et al., 2007).

Organizational culture has fascinated both academics and practitioners alike since the early 1980s (Lewis et al., 1997). There are a lot of fields are researched by scholars relating to organizational culture. The field of culture-performance studies has been on-going (the numbers of research published in the field is 144) (Deshpande and Farley, 2004). Many scholars (e.g. Chatman and Jehn, 1994; Denison and Mishra, 1995; Kotter and Heskett, 1992) has examined the relationships between culture, performance and effectiveness (Lee and Yu,

2004). The results of the studies suggest that culture can affect all organizational performance (finance, learning, market, innovation etc.) if it is "strong" (wide consensus, deeply internalized and socialized) and appropriate to its environment (relevant to its industry and business conditions) (Lee and Yu, 2004).

According to Rashid (2004) there is an association between organizational culture and the affective, cognitive, and behavioral tendency of attitudes toward organizational change, and also different types of organizational culture have different levels of acceptance of attitudes toward organizational change. This means that certain type of organizational culture could facilitate the acceptability of change, while other types of culture could not accept it. In the same way, Ahmed (1998) suggested that innovation is the engine of change and the possession of positive cultural characteristics provides the organization with necessary ingredients to innovate. Also, culture could enhance or inhibit the tendency to innovate.

On the other hand, although the relationship between culture and effectiveness-performance is relatively well established in the literature, relatively fewer indirect articles have been contributed towards the relationship between culture and innovation performance. Thus, this study aims to investigate the possible relationships between organizational culture and innovation performance. It determines the hotel companies in Turkish as a research population itself to accomplish this goal.

Literature Review

According to Cameron and Quinn (1999), almost all organizations develop a dominant type of organizational culture over time, and the types of cultures form as certain values, assumptions, and priorities become dominant when organization address challenges and adjust to changes. These dominant cultures help the organization remain consistent and stable as well as adaptable and flexible in dealing with the rapidly changing environment.

There are many definitions of culture in the literature. Barney (1986) defines organizational culture as a complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conducts its business. Schein (1985) defines culture as the shared values, beliefs, and practices of the people in the organization. According to Deshpande and Webster (1989) organizational culture is concerned with the patterns of shared values and beliefs that help individuals understand organizational functioning, and thus, provides them with norms for behavior in the firm.

The importance of organizational culture is embedded in the fact that it serves as the critical element which management might utilize in shaping the direction of their firms (Smircich, 1983), affects the way organization members think, feel, and behave, and includes core values and is an enduring, slow to change. Corporate culture can serve as a tool to improve productivity and if properly communicated, culture can be used to encourage all employees to subscribe to organizational goals (Deal and Kennedy, 1982). On the other hand, organizational culture is a strategic-level variable that has an influence on overall organizational performance and influences a firm's strategy as well as its processes and, consequently, the outcome of new product development projects (Belassi et al., 2007).

There are many culture classifications in the literature. For example, Hofstede (1980) developed, using data collected from IBM employees in over 40 countries, four culture dimensions: power distance; uncertainty avoidance; individualism/collectivism; and masculinity/femininity to differentiate between nationalities. Denison (2000) contends that the four major cultural traits of involvement, consistency, adaptability, and mission highlight major tensions or contradictions faced by modern organizations to perform effectively. While multiple conceptualizations of organizational culture can be found in the literature, we have adopted the competing values framework (Cameron and Quinn, 1999), as it is perhaps the

most popular approach to assessing culture where the interest is on relating culture to organizational performance (Gregory et al., 2009).

The Competing Values Framework

The Competing Values Framework has proven to be a helpful framework for assessing and profiling the dominant cultures of organizations because it helps individuals identify the underlying cultural dynamics that exist in their organizations. This framework was developed in the early 1980s as a result of studies of organizational effectiveness (Quinn and Rohrbaugh, 1983), followed by studies of culture, leadership, structure, and information processing (Cameron and Freeman, 1991; Cameron and Quinn, 1999). The instrument has now been used in many organizations worldwide in most sectors (e.g., private sector, public sector, education, health care). The framework consists of two dimensions, one that differentiates a focus on flexibility, discretion, and dynamism from a focus on stability, order, and control. Together these two dimensions form four quadrants, each representing a distinct set of organizational effectiveness indicators. Each of the four quadrants has a label that characterizes its most notable characteristics: clan, adhocracy, market, and hierarchy (Cameron, 2004).

The market culture is a results-oriented workplace. Leaders are hard driving producers, directors and competitors. They are tough and demanding. The glue that holds the organization together is an emphasis on winning. The long-term concern is on competitive actions and achieving stretch goals and targets. Success is defined in terms of market share and penetration. Outpacing the competition, escalating share price, and market leadership dominate the success criteria (Cameron and Quinn, 1999; Cameron, 2004).

The clan culture is typified as a friendly place to work where people share a lot of themselves. It is like an extended family with best friends at work. Leaders are thought of as mentors, coaches, and, perhaps, even as parent figures. The organization is held together by loyalty, tradition, and collaboration. Commitment is high. The organization emphasizes the long-term benefits of individual development with high cohesion and morale being important. Success is defined in terms of internal climate and concern for people. The organization places a premium on teamwork, participation, and consensus (Cameron and Quinn, 1999; Cameron, 2004).

The hierarchy culture is characterized as a formalized and structured place to work. Procedures and well-defined processes govern what people do. Effective leaders are good coordinators, organizers, and efficiency experts. Maintaining a smooth-running organization is important. The long-term concerns of the organization are stability, predictability, and efficiency. Formal rules and policies hold the organization together (Cameron and Quinn, 1999; Cameron, 2004).

The adhocracy culture is characterized as a dynamic, entrepreneurial, and creative workplace. People stick their necks out and take risks. Effective leadership is visionary, innovative, and risk-oriented. The glue that holds the organization together is commitment to experimentation and innovation. The emphasis is on being at the leading edge of new knowledge, products, and/or services. Readiness for change and meeting new challenges are important. The organization's long term emphasis is on rapid growth and acquiring new resources. Success means producing unique and original products and services (Cameron and Quinn, 1999; Cameron, 2004).

Method

Research Model and Hypothesis Development

In order to examine the relationships between culture types and innovation performance, a theoretical research model is developed (see Figure 1) and 4 hypothesizes are established to test this model. In reviewing the literature, it is seen that each of the hypothesis in the research model, specifically, has not been tested previously. Hence, the hypotheses of the study were developed by taking into account the properties of the variables in the model, indirect and general relations in the literature. For instance, the market culture, which is based on differentiation, competitive advantage, and market superiority, is expected to exhibit a high level of market orientation (Deshpande et al., 1993). A market-oriented culture supports openness to innovations and innovative ideas. Firms that have high innovative capability will be more successful to develop new capabilities that will cause response to environment, competitive advantage and high performance (Hurley and Hult, 1998). In light of these features, hypothesis 1 was created as follows; **H1.** There is a positive relationship between Market Culture (MC) and innovation performance (IP).

Figure 1: Hypothesized research model
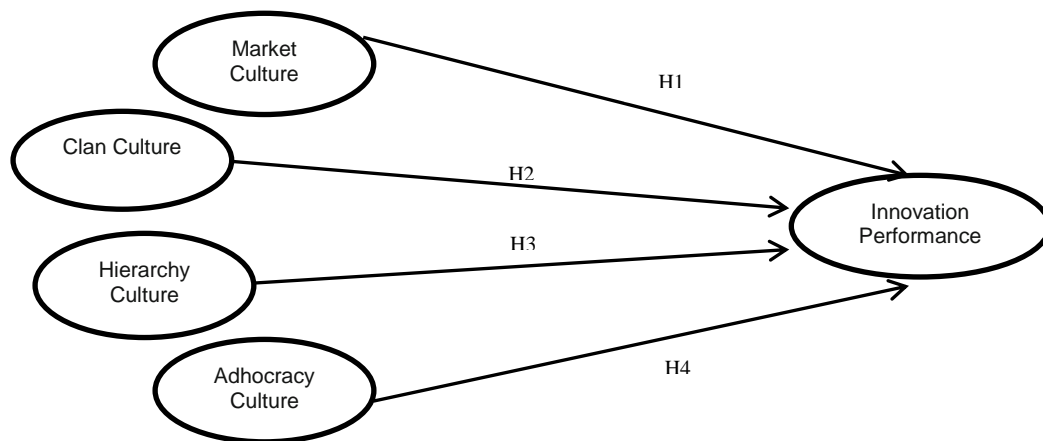
The clan culture stresses tradition, loyalty and internal maintenance, so it could result in a lack of attention to changing market needs (Deshpande et al., 1993). Remaining indifferent to the changes, resulting in low innovative activity (Hurley and Hult, 1998). Based on these features, hypothesis 2 was constructed as follows; **H2.** There is a negative relationship between Clan Culture (CC) and innovation performance.

The hierarchical culture, with its focus on smooth operations and predictability in a bureaucratic organization is likely to lead to a low level of firm market orientation (Deshpande et al., 1993). Merton (1957) argued that change within bureaucratic organizations is difficult because such organizations are inherently conservative and therefore resistant to change, in large part because of the organization's strict reliance on rules and regulations (Bloodgood and Morrow, 2003). According to these features, hypothesis 3 was developed as follows; **H3.** There is a negative relationship between Hierarchy Culture (HC) and innovation performance.

The adhocracy culture emphasis on entrepreneurship, innovation, and risk taking (Appiah-Adu and Blankson, 1998). It is also based on assumptions that organizations are in business to develop new products and services and prepare for the future, and that the goals of management and effective leadership are to generate vision, entrepreneurship, creativity, and activity on the cutting edge. The organization's long-term goals for success include rapid

growth and acquiring new resources, which means the ability to produce unique and original products and services (Berrio, 2003; Cameron and Quinn, 1999). In light of these features, hypothesis 4 can be created as follows; **H4.** There is a positive relationship between Adhocracy Culture (AC) and innovation performance.

Survey Sample, Procedure and Data Collection

The population of this study includes 1572 hotel managers working in 3-4-5 star hotels in Turkey. All 1572 hotels listed in Turkey Ministry of Culture And Tourism web pages. A letter of intent on the subject of research sent to the all hotel manager's e-mail addresses included in this list, according to random sampling method. From the 310 hotel managers, positive response received to participate in the survey. And then the questionnaire form sent to these hotel managers. When compared with similar studies in the literature, this number of samples is quite sufficient to represent the research population (Sekaran, 2003) in terms of qualitative and quantitative.

Quantitative research method was used in the study. The data were acquired using a questionnaire form. A face-to-face questionnaire method was used to collect data from hotel senior managers (experimental group) on the two constructs: Culture types (Adhocracy, Market, Clan, and Hierarchy) and Innovation performance.

Instrument

Survey items were adapted from existing instruments used in past research. Organizational culture instrument based Cameron and Quinn's (1999) Competing Values Framework (CVF) was used in this study. The instrument was modified according to the characteristics of hotel business. The modified scale consist of 18-item and four CVF culture domains (Adhocracy Culture: 6, Market Culture: 4, Clan Culture: 4, Hierarchy Culture: 4). Each of the 18 items is scored on a 5-point Likert and response format ranging from strongly disagree (1) to strongly agree (5). On the other hand, it is not reached a comprehensive, valid and reliable scale developed on innovation performance in the literature. Therefore, the innovation performance scale is formed by examining the similar studies (e.g. Innovation capacity, innovativeness, innovation strategies) in the field. The main studies utilized; Khan and Manopichetwattana (1989), Meeus and Oerlemans (2000), Lawson and Samson (2001), Ritter and Gemünden (2002), Verbees and Meulenberg (2004), Akman and Yılmaz (2008). The developed scale consists of 6-item and one dimension.

In order to assess the reliability of the respondents on the variables, reliability test was conducted. Reliability is the consistency of a set of measurement variables in a construct. Cronbach's alpha coefficient is one of the most important methods of measuring reliability. A Cronbach's alpha coefficients of 0.60 and above indicate adequate reliability (Nunnally, 1978). For the research variables, the average Cronbach's alpha coefficient is very high (for organizational culture was 0.85, for innovation performance was 0.89). This indicates that there is generally very high internal consistency among the respondents (see table 2).

Data analysis

Following Jöreskog and Sörbom (1989), structural equation modeling (SEM) was conducted with the LISREL program, assessing confirmatory measurement models (confirmatory factor analysis (CFA)) and confirmatory structural models (path analysis).

CFA is a form of structural equation modeling and has assumptions and expectations based on priori theory regarding the number of factors, and which factor theories or models best fit. In general, researcher uses this approach to test a proposed theory or model (Williams et al., 2010). CFA is often used in data analysis to examine the expected causal connections between variables. Recent articles appearing in the major organizational research journals

concluded that the use of CFA is steadily increasing while the use of EFA is declining (Hurley et al., 1997).

Path analysis is used to describe the directed dependencies among a set of variables. This includes models equivalent to any form of multiple regression analysis, factor analysis and etc., In addition to being thought of as a form of multiple regression focusing on causality, path analysis can be viewed as a structural equation modeling (SEM). Other terms used to refer to path analysis include causal modeling and latent variable models (Maruyama, 1998).

There are numerous goodness-of-fit indices in the literature, and no single test best describes the model-to-data fit. Goodness-of-fit indices are used to assess the model-to-data fit, which is the extent to which the data matches the proposed model and generally categorized into two groups: Absolute fit indices, Incremental fit indices**.** Absolute fit indices determine how well a priori model fits the sample data and demonstrate which proposed model has the most superior fit. These measures provide the most fundamental indication of how well the proposed theory fits the data (Hooper and et al., 2008). In this study, five tests were used as absolute fit measures: Relative/normed Chi-square ($\chi 2/df$) test, RMSEA, GFI, AGFI and RMR. Incremental fit indices, also known as comparative (Miles and Shevlin, 2007) or relative fit indices (McDonald and Ho, 2002), are a group of indices that compare the chi-square value to a baseline model. These indices measure how the model compares with other possible models with the same data (Maruyama, 1998). In this study, the Non-Normed Fit Index (NNFI) and the comparative fit index (CFI) were used.

Results and Discussion

Measurement models

In this study firstly the measurement models were analyzed, and then the structural model has been tested. Results from the confirmatory factor analysis demonstrate that all of the scales (Culture Types – Innovation Performance) used in the study generally produces good or acceptable results in terms of goodness of fit criteria. These results also provide evidences for the construct validity of the measures. Table 1 shows the fit indices of the measurement models. Table 2 shows the descriptive of the constructs.

Table 1: Evaluation of measurement models for the constructs used in the study.

Constructs	$\chi 2$	df	p	NNFI	CFI	GFI	AGFI	RMSEA	RMR
Market Culture	5,62	2	0.06	0.97	0.99	0.99	0.96	0.07	0.009
Clan Culture	2,08	2	0.35	0.98	0.98	0.98	0.98	0.01	0.005
Hierarchy Culture	14,11	2	0.00	0.87	0.96	0.98	0.88	0.08	0.018
Adhocracy Culture	47,52	9	0.00	0.94	0.96	0.95	0.87	0.09	0.029
Innovation performance	39,15	9	0.00	0.97	0.98	0.96	0.91	0.07	0.032

Table 2: Descriptive statistics for the constructs used in the study (N=138).

Constructs	M	SD	1	2	3	4	5
1. Market Culture	4,5016	,46216	(0.74)				
2. Clan Culture	4,5540	,41428	,452[**]	(0.71)			
3. Hierarchy Culture	4,4024	,47164	,271[**]	,316[**]	(0.67)		
4. Adhocracy Culture	4,3285	,58160	,440[**]	,351[**]	,320[**]	(0.83)	
5. Innovation performance	3,9951	,81420	,203[**]	,139[*]	-,014	,199[**]	(0.89)

Reliability coefficient alphas are presented in diagonal in parentheses.

Correlation is significant at the *P<0.05 - **P<0.01

Structural models

The hypothesized model, examining the relationship between culture types (Adhocracy, Market, Clan, and Hierarchy) and innovation performance, was tested with a confirmatory modeling strategy approach. The results of the standardized solution of the Basic Model and The tested model, and the T- values of the Structural Model are shown in Figs. 2-3

Figure 2: The tested model and the Standardized Solution of the Basic Model

MC: Market Culture
CC: Clan Culture
HC: Hierarchy Culture
AC: Adhocracy Culture
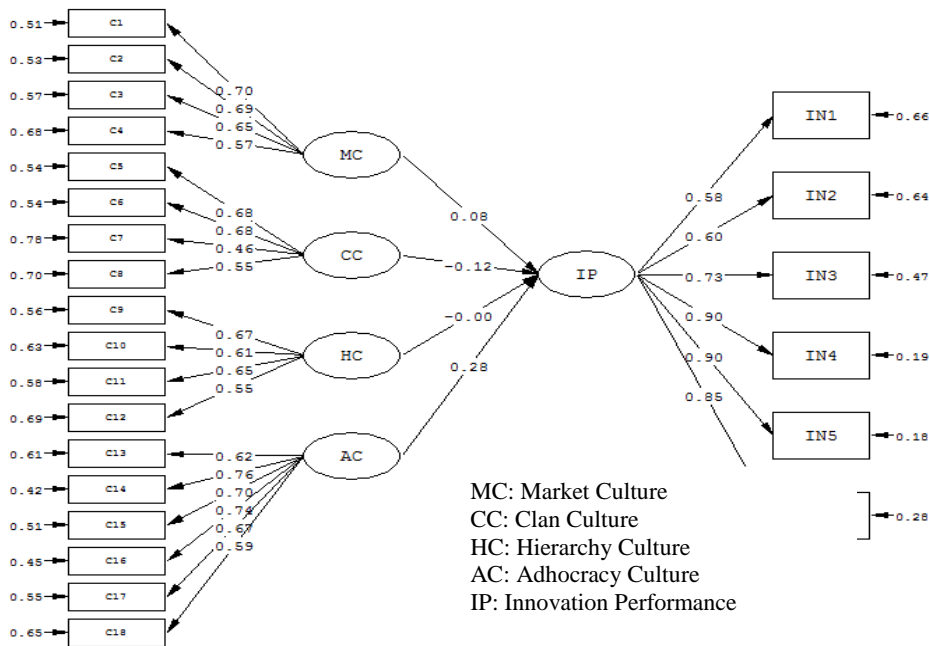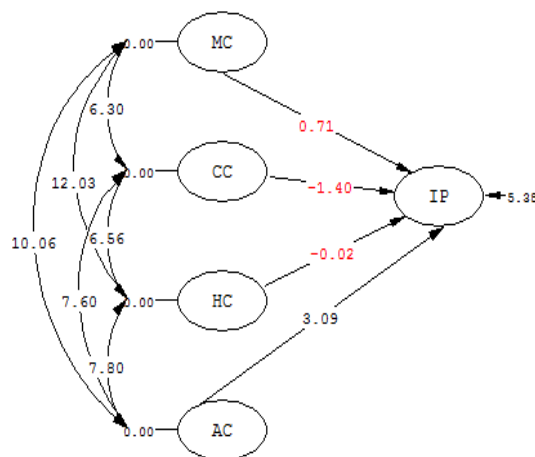IP: Innovation Performance

Figure 3: The tested model and the T- values of the Structural Model

The model generally demonstrates acceptable model fit indices, but some paths in the models are not significant (three insignificant paths between MC – IP, CC –IP and HC –IP, the path values < critical t- value 1.96). When other goodness of fit values in the model are analyzed; it is showed that the model produces good or acceptable values in terms of all

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goodness of fit criteria, hence, as such, it can be easily accepted. For example, the chi-square value (721.80) degrees of freedom (242) ratio is between 2-5. Likewise, RMSEA (0.073), CFI (0.91) and GFI (0.84) values indicate an acceptable connection. In addition, AIC (837.80) and CAIC (1112.52) values of the model are lower than the independence model (respectively 5897.63 and 6011.31) and the saturated model (respectively 600.00 and 2020.97) values. These values are the indicators of a good model fit.

Hypothesis testing

Figure 3 is examined, it is seen that there is a positive but non-significant relationship between Market Culture (MC) and innovation performance (IP), so H1 not supported by the findings. Clan culture (CC) demonstrated a negative but non-significant relationship with innovation performance, so H2 not supported. Also, Hierarchy culture (HC) has a negative relationship with innovation performance, but not significantly, so H3 not supported by the findings. On the other hand, it is seen that adhocracy culture (AC) has a significant and positive direct impact on innovation performance, so H4 is supported.

These findings were compared to results in the literature, only a result is inconsistent with the literature: hypothesis 1; the positive relationship between market culture and innovation performance. According to the literature, the trends of change and innovation of firms that have market culture, is quite high. Because of market culture has some characteristics (e.g. competitiveness and goal achievement) that can increase the innovative activities of firms. In this context, it can be said that some of the structural features (sector structure, production, marketing, working conditions, etc.) of hotels is the reason for this discrepancy.

On the other hand, it is already an expected result to be lower the tendency of innovational of the hotels that have characteristics of clan and hierarchy culture as features. Because the solid rigidity features of hierarchy culture and the closure to the outside world property prevents or delays the innovational behavior of firms. Also, this research results reveal that a negative relationship between the structures (clan and hierarchy culture and innovation performance), but these results are not statistically significant.

The results relating to adhocracy culture and innovation performance are consistent with the literature. The hotel companies that have characteristics of adhocracy culture are good at innovation performance.

Conclusion

According to the results of research, there is generally a significant relationship between the cultural types of hotel companies and their innovation performance. On the other hand in hotel companies, clan culture is the most dominant culture type. This was followed by market culture, hierarchy culture and adhocracy culture. Hotel enterprises are fairly good condition in terms of innovation performance.

In particularly, hotel businesses, with adhocracy culture, have certain features such as entrepreneurship, innovation, and risk taking, so their innovation performance is higher than the other culture types (market, clan, hierarchy). Also innovation performance is positive in the hotel businesses with market culture, because of these hotels have some dominant attributes such as competitiveness and goal achievement.

On the other hand, the hotels, dominated by the hierarchy culture, have such as order, rules and regulations, uniformity dominant attributes, so innovation performance is low and negative in these hotels. In the same way, because the hotel companies, with clan culture, have some dominant features such as cohesiveness, participation, team work, sense of family, their innovation performance is affected negatively.

The study contains the results of an initial investigation, but the results try to fill the gap in the field (relationship between organizational culture and innovation performance) and make important contribution to the literature. These results also offer alternative ideas about corporate culture the hotels that are in the quest to improve the innovation performance, and show the link between innovation performance and corporate culture.

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