

RELEVANCE OF FIRM SIZE ON THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND INNOVATIVENESS

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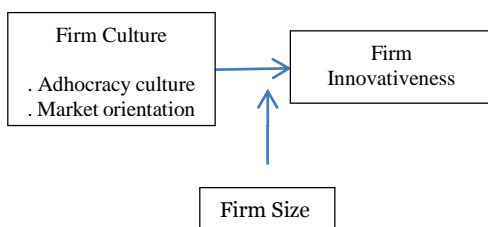
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Abstract

While empirical studies have found that certain organizational factors (such as culture) do influence the innovativeness of firms, little attention has been directed towards the effect of firm size on the innovativeness among housing developers operating in Malaysia. This paper therefore, examines the moderating effect of firm size on the relationship between organizational culture and innovativeness among housing developers in Malaysia. We adopted the proportionate stratified random sampling to collect data from the micro, small, medium and large housing developers operating in Peninsular Malaysia. We received 183 valid questionnaires out of 504 questionnaires distributed, yielding 36.3% response rate. While organizational culture was found to be significant in explaining the innovativeness, firm size significantly moderated the relationship. The findings in this paper have been complementary to the existing body of knowledge and contribute to future studies on innovativeness in the housing industry.

Keywords: Firm size, organizational culture, organizational innovativeness, housing developers.

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1.0 INTRODUCTION

The subject of organizational culture and innovativeness has received considerable attention among scholars and practitioners in recent times. Despite the significant body of literature on the Malaysian housing developers that has emerged, for example [1;9], little attention has been directed towards their culture and innovativeness across the varying firm sizes. Recently, Kamaruddeen et al [10] have examined a direct relationship between the two constructs (culture and innovativeness) of Malaysian housing developers. However, their study did not take into account the influence of firm size. In narrowing the related research gap identified in the literature, this study is conducted to examine the moderating effect of firm size on the relationship between organizational

culture and organizational innovativeness among housing developers operating in Malaysia. The structure of this paper is as follows: after the introduction, the next section reviews the literature on firm innovativeness, culture and size. Following this, an outline of the research methodology is established before the results and findings are presented. Then, the discussion and conclusion are presented.

2.0 LITERATURE REVIEW

Organizational behaviour scholars in most cases study the readiness for change in the context of resistance to change. The relevance of the readiness theory to this paper is supported by the work of [11]. Their model

consists of a three-stage process from the readiness for adoption to the integration of change into the organizational process. This process of adoption is anchored on the willingness to adopt new ideas that are different from what they are used to. Hence, the readiness theory comes into the picture.

The openness or readiness of a firm to accept a new idea is what Hurley and Hult [12] view as being innovative. The openness to new ideas as the culture of a firm is crucial to the success of firm innovativeness. The extent of adoption or implementation of new ideas introduced within the firm is determined by both notions of openness and experimentation. This can be facilitated by allowing individual knowledge to be periodically renewed or improved. Perhaps, the readiness to change from the old way of daily routine and process by all members of a firm will enhance the creation of the climate of accepting new ideas [16].

As Armenakis et al [14] have explained, readiness is a psychological state that occurs in an organization, when its members develop positive attitude, belief, and intention towards the change, to the extent that individuals involved in the process begin to adopt the change and behave in the manner that conforms to the change. Scholars such as [11; 15] have identified the two types of responses people face when they find themselves in a changing situation. They may opt for accepting the change they encounter or choose to resist the change they encounter. To further explain the change behaviour of an individual, Bovey [16] shed light on how people tend to examine the nature of change, its impact on them or how it will influence their old practice. Such evaluation of the proposed change will determine the person's decision to accept the change or resist it.

While previous studies have adopted either the resource-based view or the contingency theory to underpin the variables examined in those studies e.g., Carmeli [17], we note that the success of innovation adoption will depend on the organization's readiness for innovation adoption as well as the type of communication channel used to influence all those involved in the adoption process [18]. The readiness and openness of the organization members to adopt or introduce a new product, process, and business system are crucial to the firm's innovativeness. Hence, based on Hurley and Hult [12] and Akgun [16], the present study adopts the readiness change theory in tandem with the independent and dependent variables investigated in this research.

2.1 Organizational Innovativeness

The term "organizational innovativeness" is often used in the literature than "firm innovativeness". Additionally, the term 'innovativeness' has been widely used to mean firm innovativeness e.g., [19; 20]. Probably, this is because firm is the unit of analysis in their study. In the present study, the term "firm innovativeness" is preferred because this study specifically explores into the housing developers.

Scholars have provided various definitions of firm innovativeness in the literature. While some of these definitions reflect the capacity of a firm to produce innovative products [21], others focus on innovativeness-related culture or behaviours that reflect the inclination or capacity towards innovation [19; 21]. Scholars such as Knowles et al [20] provide a definition that reflects a firm's capability in product and behavioural innovativeness. The scholars defined innovativeness as "the propensity to create and/or adopt new products, manufacturing process, and business system" [20]

Wang and Ahmed [21] defines organizational innovativeness as "an organization's overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behaviour and process." However, researchers of organizational innovativeness like [23; 24] still adopt only product innovativeness in their scale, which of course is uni-dimensional in nature. To this end, Wang and Ahmed [21] observe that the product innovativeness of an organization emphasizes the end result of innovative capability, but they do not take into account other factors such as the behavioural change of the organization, process innovation, and strategic orientation towards innovation. As a result, their definition of firm innovativeness covers the strategic opening of new market, new process of doing things, and change in organizational behaviour towards innovativeness. Their definition of innovativeness is consistent with the findings of Hovgaard [25] who examine innovation in the forest product industry and who identify products, processes, and business system to be the three aspects of firm innovativeness. The business system could be an opening or development of new market, marketing methods, introduction of new management system, while the process could include the manufacturing process and new administrative process towards innovativeness.

In the present study, firm innovativeness refers to the innovativeness of housing developers, and is defined as the capacity or the propensity of a housing developer to adopt innovative building products, construction methods/processes/concepts, business systems and information technology that are new to the firm and/or the housing industry not just to make profit, but also to meet the need of the customers or end users. Innovative *capacity* refers to the continuous improvement of capabilities and resources that a firm possesses to exploit opportunities for getting a larger share of the market Szeto [26], and *propensity* refers to a firm's ability to capitalize on its posture based on the cultural acceptance of innovation [27].

2.2 Firm Culture

According to Schein [28], firm culture refers to a pattern of shared basic assumptions that the group

learns, as it solves its problems of external adaptation and internal integration that have worked well enough to be considered valid. Therefore, this way of solving problems has to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. Understanding the culture of an organization will enable a researcher to have a glimpse of how the organization operates [28]). Within the context of a firm or organization, culture refers to the deeply rooted values and beliefs shared by employees at all levels, manifested in the characteristics of the organization. The relationship between the culture of a firm and its innovativeness is well documented in the literature [19]. The value and belief in firms have been found to have an influence on innovation [29; 30]. This is also consistent with Schein [31] and Weick [32], who both describe culture as an important element that stimulates innovation in firms.

According to Davies et al [33], firm culture refers to the assumptions, values, attitudes as well as beliefs that a significant group shares among them within the firm. Four types of firm cultures have been identified in the literature: clan, adhocracy, hierarchical and market culture [34;35]

2.3 Firm Culture and Innovativeness

Schein [36] refers to firm culture as a pattern of shared basic assumptions that a group learns to be the best and the most valid, while solving its problems of external adaptation and internal integration. Such basic assumptions are taught to new members as the correct way to perceive, think and feel in relation to those problems. In the context of a firm or organization, culture refers to the deeply rooted values and beliefs shared by employees at all levels, manifested in the characteristics of the organization [37]. The relationship between the culture of a firm and its innovativeness is well documented in the literature [19]. Value and belief in firms have been found to have an influence on innovation [29; 38]. This is also consistent with Weick [32] and Haris [38] who both describe culture as an important element that stimulates innovation in firms. Following Cameron [39], Jaworski and Kohli [40], we have conceptualized firm culture as adhocracy culture and market orientation.

2.4 Adhocracy Culture

The clan culture focuses on the internal organization and is associated with flexibility and change. Adhocracy focuses on the external organizational growth and is characterized with flexibility, resources' acquisition, creativity as well as adaptation. Hierarchical culture is associated with focusing on firm productivity, achievement and it tends to respond to the external competition as well. Market culture is characterized as a concept focusing on the internal stability, internal efficiency, compliance to rules and regulations of the firm [34]. Following Byrd and Marshall [41], this study chooses adhocracy from the

four types of firm culture to be examined. A firm that is embedded with adhocracy culture is also called the open system organization. It is also one of the two types that are prevalent among culture studies. Additionally, adhocracy culture represents one of the two opposites and extreme views of firm culture [41]. Adhocracy culture enhances the expansion, the transformation of the firm and focuses on the competitiveness and insight of the firm. The members in this cultured firm are driven and motivated by growth as well as creativity. The leaders in this type of firms continuously attempt to seek for additional resources, capture external support and are willing to take risks. Flexibility is what underlies the existence of the firm and focuses on the external environment [42]. In summary, a firm embedded with adhocracy culture is expected to have a climate of entrepreneurship, and creativity whereby the firm's strategic emphases tend to lean on innovation, growth and the acquisition of new resources [43].

2.5 Market Orientation

In Korhonen-Sande [44] definitions of market orientation that have received considerable acceptance within this field of research are those from [45, 46, 39]. These scholars have identified two perspectives of market orientation: cultural and behavioural market orientation. In particular, the operationalization of the market orientation concept by Kohli and Jaworski [46] has received much recognition among scholars [47].

In Naver and Slater [45] concept of market orientation relates to norms and values that are instilled in the market-oriented behaviour in a firm, [46] focus on the core activities of the firm, such as acquiring market information, disseminating the information within departments or units, and using the information strategically to respond to the changing market condition. Hence Santos-Vijande et al [48] observe that market orientation can be viewed from two levels: firstly as a culture that enables a firm to offer greater value to customers; secondly, as a set of firm's actions that relates to the implementation of marketing concepts.

According to Slater and Narver [49], market orientation is considered as an organizational culture because it involves the adoption of marketing concepts as a firm's business philosophy. Market-oriented firms give much attention and priority to customers, and are interested to attain long-term profitable firms [47]. This group of firms believes that satisfying the customers is the most effective way to achieve a position to achieve firms' objectives [50]. In examining the definitions of market orientation in the literature, Chen and Quester [51] have identified three major components of market orientation: customer focus, process emphasis and goal achievement. The aim of the firms performing these three components is to satisfy customers' needs and wants, thereby achieving their business goals. Hence, market-

oriented firms are distinguished by possessing the ability to generate, disseminate and use superior information relating to their customers and competitors [52]. Narver and Slater [54] concept of market orientation, Chen and Qvester [51] p.198 define market orientation as "the organization culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus generates continuous superior performance for business".

Following Narver and Slater [54], market orientation is defined as the culture in which all housing developers' employees are committed to the continuous creation of superior value for the firms' customers. A shared vision-led senior management participatory role has been identified as critical to the successful implementation of market-oriented culture in firms such as those owned by the housing developers. This effort will perhaps influence employees to adopt new assumptions as part of their daily work behaviours. In addition, implementing market orientation will require top management to affect changes by abolishing past practices relating to the firm's status quo; and change the balance existing between driving and resistance forces in favour of the intended change [55;56]

2.6 Firm Characteristics

Firm characteristics are features that may be used to describe or distinguish one firm from another [57]. Firm characteristics include size and age, both of which have been found to influence firm's innovative behaviour [58]. Features of firms are usually expressed in terms of size, year of establishment, reputation, and legitimacy. Other features that relate to organizational factors are expressed in terms of the extent of formalization, transparency, and control mechanism of firms. Firm characteristics have three main dimensions: social, scope, and organizational.

Social dimension includes firm's legitimacy, reputation, and status. Scope dimension relates to size, age, and volume of activity of the firms. Organizational dimension refers to formalization, internal structure, and control system [59]. In this paper, firm characteristic has been conceptualized as firm size.

2.7 Firm Size and Innovativeness

Extant research has shown that several firm characteristics influence the adoption of organizational innovations and innovativeness. Brandyberry [60] empirically examines the influence of five firms' characteristics related to the adoption of architectural software (CAD). His findings reveal that firm size does not influence innovation adoption. While there is a relationship between firm characteristics and innovativeness, the complexity of the relationship can be detected when innovativeness is measured as a uni-dimensional construct [61]. We therefore test the

following hypotheses formulated in the conceptual framework below.

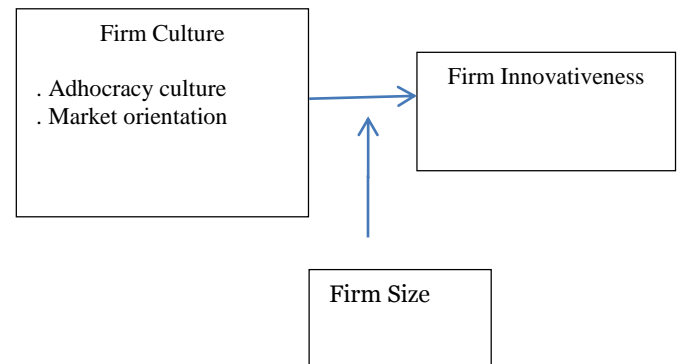


Figure 1. Conceptual framework

- H1. There is a significant relationship between firm culture and firm innovativeness
 H2. There is a significant relationship between firm size and firm innovativeness
 H3. Firm size moderates the relationship between firm culture and innovativeness

3.0 RESEARCH METHODOLOGY

3.1 Sample and Data Collection

A sampling frame of 987 housing developers was drawn from the current edition of the Real Estate and Housing Developers' Association (REHDA) Directory published. The managers were the respondents in assessing all the constructs that constitute our proposed model. Following the completion of the pre-test study with two academicians and 35 housing developers to assess the research instrument, 504 questionnaires were mailed to managers along with self-addressed and postage-paid envelopes and a cover letter explaining the purpose of the research and confidentiality of their responses. A total of 183 completed, usable questionnaires were returned which yielded 36.3% response rate. Cronbach's coefficient alpha was used to determine the reliability of the various items used in the study. All the Cronbach's coefficient alpha values obtained in this study are above the 0.7 minimum acceptable values [62].

3.2 Measurement and Operationalization

Following Kamaruddeen et al [10], this study adopts a five-point scale to measure the dependent and independent variables studied, anchored by 1 = "not at all," 2 = "slightly true," 3 = "moderately true," 4 = "mostly true," and 5 = "completely true." The firm culture construct was operationalized into two dimensions: adhocracy culture and market

orientation. Items used to measure adhocracy culture were adapted from Cameron and Quinn [63] and Duygulu and Ozeren [64]. Items for market orientation were adopted from Cameron and Quinn [39]. Firm innovativeness was measured using a seventeen-item instrument. Eleven items were adapted from Knowles et al [20] and the remaining six were adapted from Beatty et al [65] work. Firm size was measured based on the number of employees.

4.0 ANALYSIS AND FINDINGS

4.1 Firm Size

Table 1 presents the percentages of firms in terms of size: micro (0-9 employees); small (10-49 employees); medium (50-249 employees); and large firms (above 249 employees) among the housing developers surveyed. Out of 183 companies which participated in the survey, 18.1 percent were micro size companies, followed by small size (42.3%), medium (31.3%) and large companies (8.2%). This result suggests that most of the housing developers are either small or medium-sized companies.

4.2 Relationship Between Firm Culture, Size And Innovativeness

The relationship among the firm culture (adhocracy and market orientation), moderating variable (size) and dependent variables (Innovativeness) is illustrated in Table 2. We have found a strong relationship between adhocracy culture ($r=0.755$, $p<0.01$) and market orientation ($r=0.739$, $p<0.01$) with firm innovativeness. There was also a significant relationship between the moderating variable, that is firm size with firm innovativeness ($r=0.334$, $p<0.01$).

4.3 Regression Analysis Of Firm Culture And Innovativeness

As illustrated in Table 3, firm culture had shown a significant effect on firm innovativeness, and accounted for 62.5 percent of the variance ($R^2=0.625$, $F=135.633$, $p<0.01$). Both adhocracy ($B=0.529$, $t=5.853$, $p<0.01$) and market orientation ($B=0.290$, $t=3.206$, $p<0.01$) significantly predicted firm innovativeness.

4.4 Moderating Effect Of Size On The Relationship Between Firm Culture and Innovativeness

To test the hypothesis (H2 & H3) that the firm innovativeness is a function of firm culture, and more specifically whether or not firm size moderates the relationship between firm culture and firm innovativeness, a hierarchical multiple regression analysis was conducted (refer Table 4). In the first step,

the results were established as above (Table 3). In the second step, three variables were included; firm culture (adhocracy and market orientation) and firm size. These variables accounted for 63.4 percent of the significant amount of variance in firm innovativeness ($R^2=0.634$, $F=93.057$, $p<0.01$). Both firm culture dimensions (adhocracy: $B=0.503$, $t=5.516$, $p<0.01$; market orientation: $B=0.287$, $t=3.197$, $p<0.01$) were the significant predictors to firm innovativeness. The moderating variable (firm size) had also shown a significant function of firm innovativeness ($B=0.100$, $t=1.997$, $p<0.05$).

Next, the interaction terms between adhocracy and firm size, and market orientation and firm size were added to the regression model (Step 3), which accounted for a significant proportion of the variance in firm innovativeness (R^2 change=0.0019, F change=4.399, $p<0.05$). The interaction plot shows an enhancing effect whereby as firm culture and firm size are larger, firm innovativeness increases. This finding indicates that the moderation effect of firm size occurred in the relationship between firm culture and firm innovativeness.

As anticipated, this study demonstrates that there is a positive significant relationship between firm culture and innovativeness among housing developers operating in Malaysia. Housing developers embedded with adhocracy culture will tend to try new processes, concepts and techniques because such a type of organization is a risk-taker. Likewise, market-oriented organizations strive hard to understand the market situation and work towards the needs and requirements of customers. Hence, they will adopt new concepts, techniques and processes to meet the dynamic needs of the customers. There was also a significant relationship between firm size and the level of firm innovativeness among housing developers. This finding is consistent with previous studies (e.g. Arias-Aranda et al [66]). This finding suggests that large size housing developers tend to have higher level of firm innovativeness.

While the regression analysis indicates that firm size and culture are significant indicators of firm innovativeness, we discover that firm size also moderates the relationship between firm culture and firm innovativeness, especially in the relationship between market orientation and firm innovativeness. Hence, it can be concluded that better market orientation will increase the level of the firm innovativeness with a bigger or larger firm. It can be concluded that to increase the level of innovativeness, the firm should employ more staff and apply good market culture in the firm. Higher number of staff (bigger size) would enhance the culture towards the new innovation in the firm.

Table 1: Sizes of the companies

Size	Frequency	Percentage
Micro (0-9 employees)	33	18.1
Small (10-49 employees)	77	42.3
Medium (50-249 employees)	57	31.3
Large (More than 249 employees)	15	8.2

Table 2: Relationship between firm culture, size and innovativeness

	Innovativeness	Adhocracy	Market	Size
Innovativeness	1			
Adhocracy orientation	.775**	1		
Market orientation	.739**	.848**	1	
Size	.334**	.312**	.270**	1

Note: ** $p < 0.01$

Table 3: Effect of firm culture on firm Innovativeness

	B	t	Sig.
Adhocracy orientation	.529	5.853	.000
Market orientation	.290	3.206	.002
R²	0.625		
F	135.633		
Sig.	0.000		

Table 4: Moderation effect in the relationship between firm culture and firm innovativeness

Variable	B (model 1)	B (model 2)	B (model 3)	
Dependent variable				
Adhocracy orientation	.529**	.503**	.610*	
Market orientation	.290**	.287**	-.160	
		.100*	-.498*	
Moderating Variable				
Size		.100*	-.498*	
Interaction Term				
Adhocracy x size			-.203	
Market x size			.978*	
	R ²	0.625	0.634	0.653
	F	135.633	93.057	59.951
	Sig.	0.000	0.000	0.000
	R ² change		0.009	0.019
	F change		3.986	4.399
	Sig. F Change		0.048	0.014

5.0 CONCLUSION AND IMPLICATION OF STUDY

Using firm level data on 183 firms from a single respondent allows us to predict the adhocracy culture, market orientation and firm size on innovativeness among housing developers, to ascertain the moderating effect of firm size on the relationship between firm culture and innovativeness. Empirically, this paper demonstrates that firm innovativeness increases in accordance with the size of housing developers operating in Malaysia. The findings also suggest that the innovativeness level is higher among large-size housing developers, which is embedded with adhocracy culture. Conceptually, the empirical findings support the contention that firm culture and size are functions of innovativeness among housing developers in Malaysia. While few scholars have argued that the number of employee is not a good measure of firm size in innovation studies, we note that most studies use it because it is the most stable compared with other indicators, such as annual turnover. To enhance innovativeness among micro, small and medium-sized housing developers, they should enhance their innovativeness through adhocracy culture practice and further strive for continuous growth.

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References

- [1] Katsikeas, C. S. 1994. Export Competitive Advantages: The Relevance Of Firm Characteristics. *International Marketing Review*. 11(3): 33-53.
- [2] Malpezzi, S. and Mayo, S. K. 1997. Getting Housing Incentives Right: A Case Study Of The Effects Of Regulation, Taxes, And Subsidies On Housing In Malaysia. *Land Economics*. 73(3): 372-391.
- [3] Abdul-Rahman, H., Kwan C. L. and Woods P. C. 1999. Quality Function Deployment In Construction Design: Application In Low-Cost Housing Design. *International Journal of Quality and Reliability Management*. 16(6): 591-605.
- [4] Bertaud, A. and Malpezzi, S. 2001. Measuring The Costs And Benefits Of Urban Land Use Regulation: A Simple Model With An Application To Malaysia. *Journal of Housing Economics*. 10(3): 393-418.
- [5] Agus, M. R. 2002. The Role Of State And Market In The Malaysian Housing Sector. *Journal of Housing and the Built Environment*. 17: 49-67.
- [6] Al-Obaidi, M. A. A. H. and Woods, P. 2006. Investigations On Effect Of The Orientation On Thermal Comfort In Terraced Housing In Malaysia. *International Journal of Low-Carbon Technologies*. 1(2): 167-176.
- [7] Abdul-Aziz, A.-R., Yi, H. S. and Jaafar, M. 2007. Impact Of Firm Characteristics On The Value Of Resources For Malaysian Private Housing Developers. *Journal of Financial Management of Property and Construction*. 12(2): 95-106.
- [8] Abdul-Aziz, A.-R. and Awil, A. U. 2010. Locational Considerations And International Malaysian Housing Developers. *Journal of Financial Management of Property and Construction*. 15(1): 7-20.
- [9] Yam, S. The Practice Of Corporate Social Responsibility By Malaysian Developers, *Property Management*. 31(1): 76-91.
- [10] Kamaruddeen, A. M., Yusof, N. A., Said, I. and Pakir, A. H. K. 2012. Organizational Factors And Innovativeness Of Housing Developers. *American Journal of Applied Sciences*. 9(12): 1953-1966.
- [11] Armenakis, A. and Bedeian, A. 1999. Organizational Change: A Review of Theory and Research in the 1990s. *Journal of Management*. 25(3): 293 - 315.
- [12] Hurley, R. F. and Hult, G. T. M. 1998. Innovation, Market Orientation And Organizational Learning: An Integration And Empirical Examination. *Journal of Marketing*. 62(3): 42-54.
- [13] Akgün, A. E., Keskin, H., Byrne, J. C. and Aren, S. 2007. Emotional And Learning Capability And Their Impact On Product Innovativeness And Firm Performance. *Technovation*. 27(9): 501-513.
- [14] Armenakis, A. A., Harris, S. G. and Mossholder, K. W. 1993. Creating Readiness For Organizational Change, *Human Relations*. 46(6): 681-703.
- [15] Armenakis, A. A. and Harris, S. G. 2002. Crafting A Change Message To Create Transformational Readiness, *Journal of Organizational Change Management*. 15(2): 169-183.
- [16] Bovey, W. H. and Hede, A. 2001. Resistance To Organisational Change: The Role Of Defence Mechanisms. *Journal of Managerial Psychology*. 16(7): 534-548.
- [17] Carmeli, A. 2004. Assessing Core Intangible Resources. *European Management Journal*. 22(1): 110-122.
- [18] Prasad, V. and Nori, K. V. 2008. Systems Approach For Adoption Of Innovations In Organizations. *Systemic Practice and Action Research*. 21(4): 283-297.
- [19] Hurley, R. F. and Hult, G. T. M. 1998. Innovation, Market Orientation, And Organizational Learning: An Integration And Empirical Examination. *The Journal of Marketing*. 42-54.
- [20] Knowles, C., Hansen, E. and Dibrell, C. 2008. Measuring Firm Innovativeness: Development And Refinement Of A New Scale. *Journal of Forest Products Business Research*. 5(5): 1-24.
- [21] Wang, C. L. and Ahmed, P. K. 2004. The Development And Validation Of The Organisational Innovativeness Construct Using Confirmatory Factor Analysis. *European Journal of Innovation Management*. 7(4): 303-313.
- [22] Auh, S. and Menguc, B. 2005. Top Management Team Diversity And Innovativeness: The Moderating Role Of Inter-Functional Coordination. *Industrial Marketing Management*. 34(3): 249-261.
- [23] Danneels, E. and Kleinschmidt, E. J. 2001. Product Innovativeness From The Firm's Perspective: Its Dimensions And Their Relation With Project Selection And Performance. *Journal of Product Innovation Management*. 18(6): 357-373.
- [24] Sethi, R., Smith, D. C. and Park, C. W. 2001. Cross-Functional Product Development Teams, Creativity, And The Innovativeness Of New Consumer Products. *Journal of Marketing Research*. 38: 73-85.
- [25] Hovgaard, A., and Hansen, E. 2004. Innovativeness In The Forest Products Industry. *Forest Products Journal*. 54(1): 26-33.
- [26] Szeto, E. 2000. Innovation capacity: Working towards a mechanism for improving innovation within an inter-organizational network. *The TQM Magazine*. 12(2): 149-158.
- [27] Carayannis, E. G. and Provan, M. 2008. Measuring Firm Innovativeness: Towards A Composite Innovation Index Built On Firm Innovative Posture, Propensity And

- Performance Attributes. *International Journal of Innovation and Regional Development*. 1(1): 90-107.
- [28] Schein, E. 1992. *Organizational Culture and Leadership*. 2nd Edn., San Francisco, CA: Jossey-Bass.
- [29] Tesluk, P. E., Faar, J. L. and Klien, S.R. 1997. Influences Of Organizational Culture And Climate On Individual Creativity. *The Journal of Creative Behavior*. 31(1): 21-41.
- [30] Harris, R. J. 1998. *The Nature Assumption*. New York, NY: Free Press.
- [31] Schein, E. H. 1984. Coming To A New Awareness Of Organizational Culture. *Sloan Management Review*. 25(2): 3-16.
- [32] Weick, K.E. 1985. The Significance Of Corporate Culture. In: *Organizational Culture*. 381-389.
- [33] Davies, H., Mannion, R., Jacobs, R., Powell, A. and Marshall, M. 2007. Exploring The Relationship Between Senior Management Team Culture And Hospital Performance. *Medical Care Research and Review*, 64(1): 46-65.
- [34] Shih, C.-C. and Huang, S.-J. 2010. Exploring The Relationship Between Organizational Culture And Software Process Improvement Deployment. *Information and Management*. 47(5): 271-281.
- [35] Avan Beek, A. P. and Geritsen, D. L. 2010. The Relationship Between Organizational Culture Of Nursing Staff And Quality Of Care For Residents With Dementia: Questionnaire Surveys And Systematic Observations In Nursing Homes. *International Journal of Nursing Studies*. 47: 1274-1282.
- [36] Schein, E. H. 2010. *Organizational Culture And Leadership*. 4th Edn., John Wiley and Sons.
- [37] Claver, E., Llopis, J., Garcia, D. and Molina, H. 1998. Organizational Culture For Innovation And New Technological Behaviour. *The Journal of High Technology Management Research*. 9(1): 55-68.
- [38] Harris, J.R. 2011. *The Nurture Assumption: Why Children Turn Out The Way They Do*. 1st Edn., Free Press, New York.
- [39] Cameron, K. S. and Quinn, R. E. 2011. *Diagnosing And Changing Organizational Culture: Based On The Competing Values Framework*. 3rd Edn., John Wiley and Sons.
- [40] Jaworski, B. J. and Kohli, A. K. 1993. Market Orientation: Antecedents And Consequences. *The Journal of Marketing*. 57: 53-70.
- [41] Byrd, T. A., and Marshall, T. E. 1996. Corporate Culture, Related Chief Executive Officer Traits, And The Development Of Executive Information Systems. *Computers In Human Behaviour*. 12(3): 449-464.
- [42] Denison, D. R. and Spreitzer, G. M. 1991. Organizational Culture And Organizational Development: A Competing Values Approach. *Research In Organizational Change And Development*. 5(1): 1-21.
- [43] Hynes, N. 2009. Corporate Culture, Strategic Orientation, And Business Performance: New Approaches To Modelling Complex Relationships. *Technological Forecasting and Social Change*. 76(5): 644-651,
- [44] Korhonen-Sande, S. 2010. Micro-Foundations Of Market Orientation: Influencing Non-Marketing Managers' Customer Information Processing. *Industrial Marketing Management*. 39(4): 661-671
- [45] Narver, J. C. and Slater, S. F. 1990. The Effect Of A Market Orientation On Business Profitability. *Journal of Marketing*. 20-35.
- [46] Kohli, A. K. and Jaworski, B. J. 1990. Market Orientation: The Construct, Research Propositions, And Managerial Implications. *The Journal of Marketing*. 54: 1-18.
- [47] González-Benito, Ó. and González-Benito, J. 2005. Cultural Vs. Operational Market Orientation And Objective Vs. Subjective Performance: Perspective Of Production And Operations. *Industrial Marketing Management*. 34(8): 797-829.
- [48] Santos-Vijande, M. L., Sanzo-Perez, M. J., Alvarez-Gonzalez, L. I. and Vazquez-Casielles, R. 2005. Organizational Learning And Market Orientation: Interface And Effects On Performance. *Industrial Marketing Management*. 34(3): 187-202.
- [49] Slater, S. F. and Narver, J. C. 1994. Does Competitive Environment Moderate The Market Orientation-Performance Relationship? *The Journal of Marketing*. 58: 46-55.
- [50] Shoham, A. and Rose, G. M. 2001. Market Orientation: A Replication, Cross-National Comparison, And Extension. *Journal of Global Marketing*. 14(4): 5-25.
- [51] Chen, S.-C. and Quester, P. G. 2009. A Value-Based Perspective Of Market Orientation And Customer Service. *Journal of Retailing and Consumer Services*. 16(3): 197-206.
- [52] Jiménez-Jiménez, D. and Cegarra-Navarro, J. G. 2007. The Performance Effect Of Organizational Learning And Market Orientation. *Industrial Marketing Management*. 36(6): 694-708.
- [53] Narver, J. C. and Slater, S. F. 1990. The Effect Of A Market Orientation On Business Profitability. *Journal of Marketing*. 20-35.
- [54] Narver, J. C., Slater, S. F. and Tietje, B. 1998. Creating A Market Orientation. *Journal of Market-Focused Management*. 2(3): 241-255.
- [55] Beverland, M. B. and Lindgreen, A. 2007. Implementing Market Orientation In Industrial Firms: A Multiple Case Study. *Industrial Marketing Management*. 36(4): 430-442.
- [56] Kennedy, K. N., Goolsby, J. R. and Arnould, E. J. 2003. Implementing A Customer Orientation: Extension Of Theory And Application. *Journal Of Marketing*. 4: 67-81.
- [57] Kling, G. and Weitzel, U. 2011. The Internationalization Of Chinese Companies: Firm Characteristics, Industry Effects And Corporate Governance. *Research in International Business and Finance*. 25(3): 357-372.
- [58] Avermaete, T., Viaene, J., Morgan, E. J. and Crawford, N. 2003. Determinants Of Innovation In Small Food Firms. *European Journal of Innovation Management*. 6(1): 8-17.
- [59] Ferreira, M. P., Li, D. and Serra, F. A. R. 2008. Firm Characteristics And Country Institutional Development: Business Relationship With Foreign Firms In Transition Economies (No. Working paper no 20/2008): UNISUL Business School.
- [60] Brandyberry, A. A. 2003. Determinants Of Adoption For Organisational Innovations Approaching Saturation. *European Journal of Innovation Management*. 6(3): 150-158.
- [61] Subramanian, A. and Nilakanta, S. 1996. Organizational Innovativeness: Exploring The Relationship Between Organizational Determinants Of Innovation, Types Of Innovations, And Measures Of Organizational Performance. *Omega*. 24(6): 631-647.
- [62] Nunnally, J. O. 1978. *Psychometric theory*. New York: McGraw-Hill.
- [63] Cameron, K. and Quinn, R. 2005. *Diagnosing And Changing Organizational Culture*. New Jersey Prentice Hall.
- [64] Duygulu, E. and Ozeren, E. 2009. The Effect Of Leadership Style And Organizational Culture On Firm's Innovativeness. *African Journal of Business Management*. 3(9): 475-485.
- [65] Beatty, R. C., Shim, J. and Jones, M. C. 2001. Factors Influencing Corporate Web Site Adoption: A Time-Based Assessment. *Information and Management*. 38(6): 337-354.
- [66] Arias-Aranda, D., Minguela-Rata, B. and Rodríguez-Duarte, A. 2001. Innovation And Firm Size: An Empirical Study For Spanish Engineering Consulting Companies. *European Journal of Innovation Management*. 4(3): 133-142.