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Knowledge-Oriented Leadership and Sales Performance: The Mediating Effects of Market Orientation, Innovative Organizational Culture, and Innovation Implementation

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Abstract

The important role of leadership in management of today's organizations has been emphasized for many years by executives and experts in the field. The role of knowledge in leading organizations is prominent. This study aims to examine the role of the knowledge-Oriented Leadership in market orientation that seeks to achieve innovation. Market orientation (MO) lies at the bottom of modern marketing thinking and practice. Although research has shown that MO contributes to firm performance through innovation implementation, an understanding is lacking on how the dimensions of MO (customer orientation, competitor orientation, and inter-functional coordination) may have differential effects on innovation, especially in the sales force context. As a survey research, data were gathered through a structured questionnaire with a sample of 92 executive-level employees employed in ISPs in Mazandaran province. SEM was used to examine the standard error of the estimate and t-values. Findings suggest that knowledge-oriented leadership has a positive effect on innovation implementation by mediating of market orientation. Interestingly, innovative organizational culture was found to have mediated the relationship between Knowledge-oriented leadership and innovation implementation of the ISPs in Mazandaran. Moreover, results indicate that effect of sales force market orientation on sales performance is fully mediated by innovation implementation.

Keywords: Knowledge-Oriented Leadership, Market Orientation, Innovative Organizational Culture, Innovation Implementation, Sales Performance.

1. Introduction

Leadership behavior is another important factor, as long as leaders have an immense effect on the direction of knowledge management inside their organizations (Nguyen & Mohamed, 2011). On the one hand, leaders can create conditions that let participants to prepare their knowledge manipulation skills, to contribute their own individual knowledge resources, or to obtain easier access to relevant knowledge (Crawford, Gould, & Scott, 2003; Politis, 2002). On the other hand, leadership behaviors may present major obstacles to creating and leveraging knowledge (Bryant, 2003; Politis, 2002; von Krogh, Nonaka, & Rechsteiner, 2012). Yang (2007) associates' innovator or facilitator roles with high levels of knowledge sharing. This paper concentrates on innovative organizational culture as an essential condition for the development of knowledge for innovation purposes in technology intensive firms. Overall, the arguments in this paper demonstrate that this kind of

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organizational leadership is necessary for technology intensive organizations to improve their innovation performance through the effective development and implementation of sales force marketing orientation. Market orientation which guides firms to gain superior performance through creating customer values, lies at the bottom of modern marketing considering and practice (Kohli & Jaworski, 1990; Narver & Slater, 1990). MO is composed of multiple dimensions (e.g., customer orientation, competitor orientation, and inter-functional coordination) and firms have the strategic option to stress certain MO dimensions (Narver & Slater, 1990; Slater & Narver, 1994). MO is often connected to performance through its effect on firm innovativeness (Han, Kim, & Srivastava, 1998; Kirca et al., 2005). The sales force, for instance, is in an enviable position of accessing first-hand customer and competitor intelligence, and can contribute considerably to the firm's innovation process (Evans, McFarland, Dietz, & Jaramillo, 2012). Indeed, Judson et al. (2006) and Joshi (2010) clearly show that salespeople can have direct input in the product innovation processes. Yet, little research exists that examines how sales force MO contributes to the firm's innovation process, which, accordingly, is the focus of this study. While innovation is a key mediating variable between MO and sales performance (Kirca et al., 2005), studies trying to understand knowledge-oriented leadership –MO-innovation implementation–sales performance relationships at the dimensional level have produced mixed results (Deshpande, Farley, & Webster, 1993; Han et al., 1998; Hurley & Hult, 1998; Im & Workman, 2004). so, this paper addresses three main objectives: (1) to analyze the influence of a specific type of organizational leadership – knowledge-oriented leadership – on innovation implementation by mediating role of market orientation; (2) to analyze the effect of knowledge leadership on product innovation performance with the mediating role of innovative organizational culture; and (3) to explore the mediating role of innovation implementation in the relationship between dimensions of marketing orientation and sales performance.

2. Literature Review

2-1. Knowledge Oriented Leadership

Leadership is a personal attitude, which induces implementation of activities to obtain the favorable goals (Hemhiel & Coons, 1957 Cited by Nayati & Kukhviyanti, 2016). Meanwhile, according to Sarros and Butchasky (1996), “leadership is defined as the purposeful behavior of impacting others to contribute to a usually agreed goal for the individual plus the organization or the common good” (Cited by Nayati & Kukhviyanti, 2016). This research examines the effect of a distinctive type of leadership behavior – knowledge-oriented leadership – on the sales performance. Knowledge-oriented leadership includes knowledge creation, transfer, storage, and application (Alavi & Leidner, 2001). Knowledge-oriented leadership is thus a necessary instrument that is based on a mixture of transformational and transactional leadership styles, along with communication and motivational factors (Ribiere & Sitar, 2003). In general, the arguments in this paper show that this kind of organizational leadership is essential for technology intensive organizations to improve their innovation performance through the effective development and implementation of innovative organization culture.

2-2. Market Orientation

Market orientation is the creation of market information throughout the organization about the current and future needs of customers, the development and transmission of this information throughout the organization and subsequently respond to it at all levels of the organization. Market orientation includes a set of beliefs that put customers in the spotlight to ensure the company's long-term profitability. This does not mean ignoring other stakeholders such as owners, managers and employees (Deshpande, 1993). Market orientation refers to a set of activities developed by organizations to constantly monitor and respond to market changes such as customer inclinations, faster technology growth, and the growth of a competitive environment. This key concept refers to achieving key goals which the most important are: market share, sales growth, increasing profitability and meeting the real wants and needs of customers (Agarwal, 2003).

2-3. Innovative Organizational Culture

Organizational culture is in general recognized as a system of shared values and norms for an organization that explain acceptable attitudes and behaviors for its members (e.g., Schein, 1992). According to the resource-

based view of organizational strategy, a firm holds some sort of valuable resources, and competitive advantages are obtained when its strategies are successful in leveraging these resources (e.g., Penrose, 1959, Teece et al, 1997, Barney, 2001). Valuable resources originate from different aspects of an organization, including organizational culture. For example, "organizational culture, leadership, and human capital are the unique resources Southwest Airlines leverages to compete successfully" (Hitt et al., 1999). In organizational innovation literature, organizational culture is frequently recognized as a key antecedent of innovation (e.g., Nystrom, 1990, Tushman & O'Reilly, 1997). Researchers recommended an innovative organizational culture, in the sense of a "pro-innovation culture", as a social control system to develop and preserve organizational innovation (e.g., Tushman & O'Reilly, 1997).

3. Hypothesized Model

3-1. Knowledge-oriented leadership and Market Orientation

In this paper we also want to examine the relationship between knowledge-oriented leadership and innovation implementation by mediating role of market orientation. Market orientation refers to the organization-wide generation of market intelligence that is connected with present and future customer needs, dissemination of intelligence across departments and organization-wide responsiveness (Kohli & Jaworski, 1990). Although a positive relation between MO and firm performance through innovation is generally assumed in the literature (Day, 1994; Gatignon & Xuereb, 1997; Jaworski & Kohli, 1993; Narver & Slater, 1990; Slater & Narver, 1994), we propose that the existence of MO between knowledge-oriented leadership and innovation and its implementation can facilitate the interaction among them. Therefore, we hypothesize that knowledge-oriented leadership has a positive and significant impact on innovation implementation by mediating of market orientation. This study proposes that the dimensions of market orientation namely customer orientation, competitor orientation, and inter-functional coordination may have a positive and significant influence on the sales performance by mediating of innovation implementation. Consequently, we proposed the following hypotheses:

H1: K-O leadership positively related to market orientation.

H2: Market orientation positively related to innovation implementation.

Ha1,2: Market orientation mediates the effect of K-O leadership on innovation implementation.

3-2. K-O Leadership and innovative organizational culture

Dessler (2001) defines leadership as a way of inspiring others to work hard to accomplish important duties. Leadership thus involves defining a clear management approach toward employees and encouraging them to follow the leader to obtain the firm's goals. Ribiere and Sitar (2003) add that leadership consists of several elements that include leadership style, motivation, and communication. Leadership in knowledge organizations is particularly relevant when knowledge workers perceive leaders as actively engaging and committing to supporting knowledge and learning activities (DeTienne et al., 2004). In addition to knowledge leaders should recognize and reward such attempts by their co-workers (Ribiere & Sitar, 2003), instead of promoting negative behaviors that destroy knowledge transfer, sharing, and application (Lakshman, 2009). In other words, leaders of a company must guide knowledge workers to learn and use knowledge, thereby obtaining the knowledge goals of the firm as a whole (Teece, 2009). In this regard, knowledge-oriented leaders should promote best innovative behaviors in the company, essentially through an effective knowledge management leadership style, motivation, communication, and staffing. Then we expect that a leader with knowledge orientation is more efficient in an innovative organization culture to implementing of innovations.

3-3. Innovation organizational culture and innovation implementation

Organizational culture is defined as the organizational norms and expectations regarding how people behave and how things are done in an organization (Glisson & James, 2002). Tichy (1982) investigated that organizational culture holds the organization together as normative glue. Organizational culture encourages innovative behavior (Cameron & Quinn, 1999; Denison, 1990; Deshpande´ & Webster, 1989; Miron et al., 2004). Organizational culture influences the behavior of employees, innovative activities of the organization and

makes the environment comfortable or uncomfortable depending on that which type of culture has been adopted by the organization. Innovation is the "creation and implementation of new ideas, products, processes, and policies". An idea is at the core of innovation and its effective implementation is contributed by the individual employees' knowledge (shipton et al., 2006). Krause (2004) determined two components for innovation behavior included the generation and testing of ideas and their implementation. The generation and testing of ideas include processes of defining their focus (formulating and analyzing the problem), finding ideas (developing ideas mentally), and proposing the resulting ideas. In practice, these processes are demonstrated in the middle manager's eagerness to experiment and take risks, discuss the problem with others, or invest time and energy in finding a better variant (Mumford et al, 2002). To be innovative and allow innovation within the structure of an organization, people need to know that failures will be tolerated during the quest for innovation and that failures will not be punishable (Deacon, 2008). Future, innovation must also depend on an organization's culture, system and belief (Wang & Mioa, 2015). An innovative culture helps in identifying problems of the organization and presents their innovative solutions. Kwon, et al. (2013) exhibited that innovation mediates the relationship between organizational culture and organizational performance. According to resource-based view firm can get sustainable competitive advantage if it has the ability to recognize, develop, implement resources that are difficult to imitate by rivals (Amit & Schoemaker, 1993; Carmeli & Tishler, 2004). These resources may be tangible and intangible and intangible resources may be culture, knowledge, skills that affect organizational performance through innovation. Organization culture is necessary to innovation (Connor, 2002; Weick, 1985; Schein, 1984; Hall, 1992; Barney, 1991). Organizational culture that supports innovation involves risk taking and freedom (Hurley & Hult, 1998; Liu, Luo, & Shi, 2002). Siguaw et al. (2006) demonstrated that organizational culture is shaped by innovative orientation of the firm. Major factor that hampers innovation is control (Amabile, 1998; Oldham & Cummings, 1996). Therefore, we expect that the existence of an innovative organization culture fosters innovations in the organizations and as a result it facilitates innovation implementation. Based on these foresight and findings from the literature, the following hypotheses were developed:

H3: K-O leadership positively related to innovative organizational culture.

H4: Innovative organizational culture positively related to innovation implementation.

Hb3, 4: Innovative organizational culture mediates the effect of k-o leadership on innovation implementation.

H5: Innovation implementation positively related to sales performance.

Hc2,5: Innovation implementation mediates the effect of market orientation on sales performance.

The conceptual model depicting the relationships among the concepts of this paper is presented in Figure 1.

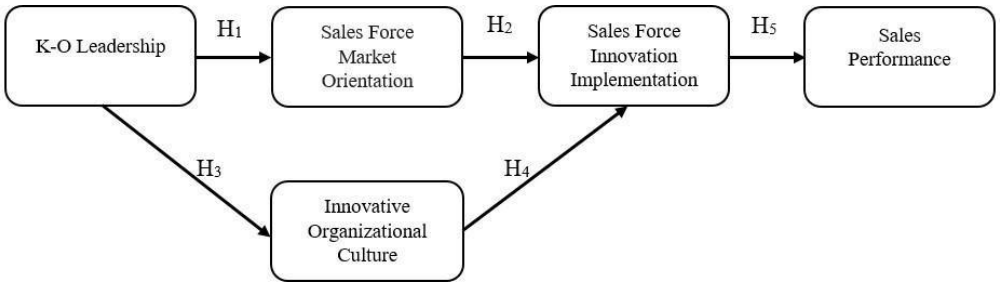

Figure 1- Proposed Research Model

4. Method

The method of this study in terms of the target is practical, as well as in terms of data collection and implementing respectively is descriptive and quantity. The statistical society included of all of the ISPs which were about 120 firms in Mazandaran province. The size of the sample was about 92 firms due to Morgan &

Krejci decision model that have been selected as a statistical sample by randomly. The data collection method of this study in all of the different phases included Library Studies and the questionnaire distribution.

5. Analysis and findings

This section presents the results of the study. To assess the research model developed in Figure 2, Smart PLS v.2 was used to analyze the data collected. This included path modeling and then bootstrapping (Chin, 1998; Gudergan et al, 2008). A total of 500 re-samples were used to generate the standard error of the estimate and t-values. As stated by Chin, Marcolin, & Newsted (2003), PLS can give more accurate estimates of moderator and mediator effects by accounting for the error that attenuates the estimated relationships and improves the validation of theories (Helm, Eggert, & Garnefeld, 2010; Henseler & Fassott, 2010). First, we tested the convergent validity, which is the degree to which multiple items to measure the same concept are in agreement. Next, we proceeded to test the discriminant validity in which the measures are not a reflection of some other variables and it is indicated by the low correlations between the measure of interest and the measures of other constructs (Cheung & Lee, 2010). Discriminant validity can be examined by comparing the squared correlations between constructs and variance extracted for a construct (Fornell & Larcker, 1981). Finally, we used the Cronbach's alpha coefficient to assess the inter-item consistency of our measurement items.

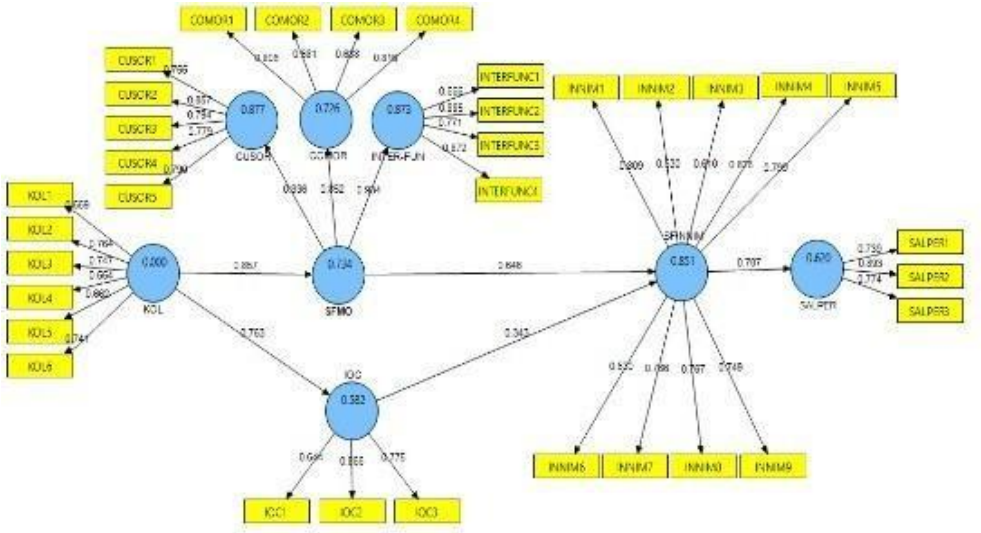

Figure 2. Results of the path analysis

Note. KOL =knowledge-oriented leadership; SFMO = sales force market orientation; CUSOR = customer orientation; COMOR = competitor orientation; INTER-FUNC = inter-functional coordination; IOC = innovative organizational culture; SFINNIM = sales force innovation implementation; SALPER = sales performance.

5-1. Assessment of the Measurement Model

First, confirmatory factor analysis (CFA) was conducted to test the item reliability, convergent validity, and discriminant validity of the measurement's scales. As shown in Table 1, all the items loading exceeded the minimum cut off point of .50 (Anderson & Gerbing, 1988; Bagozzi, Yi, & Philipps, 1991; Gefen & Straub, 2000); thus, the internal consistency was achieved. In terms of convergent validity, all the composite reliability (CR) values were above .70 (Hair, Anderson, & Tatham, 1998; Requelme & Rios, 2010) and the average variance extracted (AVE) values meet the minimum criteria of .50 (Henseler, Ringle, & Sinkovics, 2009; Rodgers & Pavlou, 2003). In Table 4, all the t-values exceeded 1.96 significant levels (statistically significant at .05 levels), hence, all the measurements items were significantly explaining the research construct. For discriminant validity (see

Table **2**), the value of AVE was square rooted and testified against the inter-correlations of the construct with other constructs in the research model (Chin, 2010; Komiak & Benbasat, 2006) and all the values noted as greater than each of the construct's correlations (Chin, 2010), hence, the measurement model satisfactory achieved. In order to testify the reliability of the variables, Cronbach's alpha (see

Table **3**) was used to validate the reliability of the variables and the minimum cut off point must above .70 (Cronbach, 1951). Thus, all the internal reliabilities of scales were ranged from .727 to .893 which was clearly acceptable. Hence, the measurement model was satisfactory and provided sufficient evidence in terms of reliability, convergent validity, and discriminant validity.

Table 1. Results of measurement model

Model construct	Measurement item	Loading	CR	AVE
Knowledge-Oriented Leadership	KOL 1	0/569	0/834	0/559
	KOL 2	0/764		
	KOL 3	0/747		
	KOL 4	0/554		
	KOL 5	0/662		
	KOL 6	0/741		
Customer Orientation	CUSOR 1	0/755	0/896	0/633
	CUSOR 2	0/857		
	CUSOR 3	0/794		
	CUSOR 4	0/779		
	CUSOR 5	0/790		
Competitor Orientation	COMOR 1	0/806	0/836	0/563
	COMOR 2	0/681		
	COMOR 3	0/688		
	COMOR 4	0/816		
Inter-Functional coordination	INTER-FUNC 1	0/666	0/978	0/645
	INTER-FUNC 2	0/885		
	INTER-FUNC 3	0/771		
	INTER-FUNC 4	0/872		
Sales Forces Innovation Implementation	SFINNIM1	0/809	0/914	0/545
	SFINNIM2	0/630		
	SFINNIM3	0/610		
	SFINNIM4	0/826		
	SFINNIM5	0/799		
	SFINNIM6	0/630		
	SFINNIM7	0/766		
	SFINNIM8	0/767		
	SFINNIM9	0/749		
Innovative Organizational Culture	IOC 1	0/644	0/809	0/589
	IOC 2	0/866		
	IOC 3	0/775		
Sales Performance	SALPER 1	0/739	0/846	0/648
	SALPER 2	0/893		
	SALPER 3	0/774		

Table 2. Discriminant validity of construct

	COMOR	CUSOR	INTERFUNC	IOC	KOL	SALEPER	SFINNIM
COMOR	0/750						
CUSOR	0/674	0/796					
INTERFUNC	0/708	0/730	0/803				
IOC	0/586	0/674	0/673	0/767			
KOL	0/607	0/728	0/735	0/763	0/748		
SALEPER	0/678	0/685	0/701	0/60	0/648	0/805	

	COMOR	CUSOR	INTERFUNC	IOC 3	KOL	SALEPER	SFINNIM
SFINNIM	0/727	0/652	0/742	0/704	0/738	0/780	0/738

Note. Diagonals represent the square root of the average variance extracted (AVE) while the other entries represent the correlations.

Table 3. Result of Reliability Test

Model Construct	Measurement Item	Cronbach's Alpha (A)	Loading Range	Number of Items
Knowledge-Oriented Leadership	KOL 1 KOL 2 KOL 3 KOL 4 KOL 5 KOL 6	0/760	0/554–0/764	6(6)
Customer Orientation	CUSOR 1 CUSOR 2 CUSOR 3 CUSOR 4 CUSOR 5	0/855	0/755–0/857	5(5)
Competitor Orientation	COMOR 1 COMOR 2 COMOR 4	0/741	0/681–0/816	4(4)
Inter-Functional Coordination	INTER-FUNC 1 INTER-FUNC 2 INTER-FUNC 4	0/811	0/666–0/885	6(6)
Sales Forces Innovation Implementation	SFINNIM1 SFINNIM2 SFINNIM3 SFINNIM6 SFINNIM7 SFINNIM8 SFINNIM9	0/893	0/610–0/826	9(9)
Innovative Organizational Culture	IOC 1 IOC 2 IOC 3	0/762	0/644–0/866	3(3)
Sales Performance	SALPER 1 SALPER 2 SALPER 3	0/727	0/739–0/893	3(3)

5-2. Assessment of the Structural Model

Next Figure 2 and Table 4 present the results of the hypotheses testing. The results showed that knowledge-oriented leadership has a positive and significant impact on sales forces innovation implementation by mediating of market orientation. In addition to the results reveal that innovative organizational culture exists to be mediating the relationship between knowledge-oriented leadership and sales force innovation implementation. As well as sales force innovation implementation exists to be mediating the relationship between all dimensions of MO and sales performance. In other words, all hypotheses were accepted, namely, H1 to H5. The researcher also conducted a global fit measure (GOF) to examine the global validation of PLS model (Amato et al, 2004; Chin, 1998). The GOF was calculated (see Equation 1), and results of .661 ($\overline{R^2}$ was .752, average communalities was .583) exceeded the minimum large value of .36 and indicated that the GOF value was large enough to support the validation of PLS model globally (Wetzels, Schroder, & Oppen, 2009). As seen, the

model has better explaining power in comparison with the baseline values (GOF small = .1, GOF medium = .25, GOF large = .36; Akter, D'Ambra, & Ray, 2011).

$$GOF = \sqrt{\overline{communalities} \times \overline{R^2}} \quad (1)$$

Table 4. Path Coefficients and Hypothesis Testing

Hypothesis	Relationship	Coefficient	t-value	Supported
H1	K-o leadership positively related to market orientation.	0/857	23/949**	Yes
H2	Market orientation positively related to innovation implementation.	0/646	13/827**	Yes
Ha1, 2	Market orientation mediates the effect of k-o leadership on innovation implementation.	0/857, 0/646	23/929**, 13/827**	Yes
H3	K-o leadership positively related to innovative organizational culture.	0/763	15/212**	Yes
H4	Innovative organizational culture positively related to innovation implementation.	0/343	6/556**	Yes
Hb3, 4	Innovative organizational culture mediates the effect of k-o leadership on innovation implementation.	0/763, 0/343	15/212**, 6/556**	Yes
H5	Innovation implementation positively related to sales performance.	0/787	19/357**	Yes
Hc2, 5	Innovation implementation mediates the effect of market orientation on sales performance.	0/646, 0/787	13/827**, 19/357**	Yes

Note. *p < .05, t-value greater than 1.645. **p < .01, t-value greater than 2.33.

6. Discussion and conclusion

The present study proposes a framework on how to enhance firms' performance by innovation implementation. In this framework, innovative organizational culture and sales force market orientation plays a mediating role on the relationship between knowledge-oriented leadership and innovation implementation. In other hand, sales force innovation implementation also plays a mediating role on the relationship between the dimensions of sales force market orientation and sales performance. The framework suggests that knowledge-oriented leadership is essential to helping ISPs to improve innovation culture among sales forces. First of all, the results of the study show knowledge-oriented leadership's strong impact on innovation implementation by mediating role of sales forces market orientation. These initiatives mainly relate to experimentation through internal R&D and shifts in current technological trajectories (Gupta, Smith, & Shalley, 2006). In this regard, a strong knowledge-oriented leadership position forces the firm to embark on substantial investment and development initiatives to generate new knowledge. This kind of organizational leadership leads the firm's sales forces to believe that knowledge creation, via R&D support, is essential for organizational development and competitive advantage. Previous researches (Donate & De Pablo, 2015) showed that Knowledge-oriented leadership has significant influence on knowledge orientations and innovation performance. The results also show that there is a significantly positive relationship between customer orientation and service innovation, which, in turn, leads to new service innovation. This finding signifies the importance of customer orientation as a distinct element of market orientation in developing innovation. As well as both competitor orientation and inter-functional coordination are significantly associated with service innovation. The evidences are the same as the innovation literature. In other words, the impacts of all three dimensions on sales performance is fully mediated by innovation implementation as a whole effect. The ability to have innovative organizational culture enables ISPs to react in a way that will secure their competitive position in a turbulent market. ISPs can utilize the benefits of innovation culture to enable their business operation to run creatively, efficiently and achieve desirable sales performance. Having the organizational culture for innovation, people can share their information among each other's. Through sharing information, the level of generating new idea will be increased. However, interpreting the collected information should be in such a way that people can easily understand and increase their knowledge. Without a doubt, people behavioral and cognitive play a prominent role in having culture for

innovation which can lead to an innovative performance. To move towards a holistic model of innovative organizational culture, the element of knowledge-oriented leadership is very crucial in which the results revealed that the development of new knowledge and although it is difficult to attain, it has the potential to change behavior of the sales forces. In fact, ISPs owners that have developed a strong innovative organizational culture are good at creating, acquiring and transferring knowledge, as well as at modifying behavior to reflect new knowledge and insights. Most importantly, the ISPs must be able to convert words into action. Based on the preliminary study, it can be inferred that organizational culture may affect innovation implementation and can make it pervasive or rare in different parts of organizations (Sharifirad & Ataei, 2012). Actually, organizational culture may stimulate or kill creativity and innovation if the culture is not properly nurtured. A crucial part of innovativeness is the cultural openness to innovation which is evidenced by the connection of knowledge-oriented leadership and organizational culture with innovation. Innovation culture is concerned with the cultural attention needed to recognize the need for innovative performance. In order to enhance both theoretical and practical significance of the research, future studies should use both qualitative and quantitative methodologies and a greater variety of research tools. Therefore, presenting the findings of the preliminary study to the ISPs owners will provide fresh outlook that they need to embrace the concept of innovation culture in order to shift from traditional method of operating business to innovative ways of doing business. Wei et al. (2012) exhibited significant relationship between market orientation and innovation. Market orientation helps the firms in identifying latent needs of the customers and helps in introducing new products and services to fulfill the needs of customers. Market orientation affects sales performance and fosters innovation and plus facilitates innovation implementation (Baker & Sinkula, 1999; Farrell & Oczkowski, 2002; Hunt & Morgan, 1996). This paper suggests that if organizations want to adopt innovative behavior, then they must adopt market orientation successfully and efficiently and must improve its learning processes by knowledge-oriented leadership. To adopt market orientation, organizations must foster internal processes to collect, disseminate information about needs of customers and must be aware of strengths and weaknesses of competitors, must have complete information about market environment and must have a strong network for identifying and meeting the needs of customers and must give active response to market conditions. The finding of this study showed similar results from past researches in which innovation implementation positively affected market orientation and sales performance (Wang and Miao, 2015; Narver & Slater, 1990; Kohli & Jaworski, 1990). Briefly, the findings have noted that knowledge-oriented leadership via innovative organizational culture and market orientation is essentially important in determining the success of innovation implementation that led to better sales performance. So by adopting a strong knowledge-oriented leadership style, by focusing and implementing market orientation, by enhancing innovative organizational culture, all sectors whether government, nongovernment or public service companies can introduce innovative products, services and processes and can show superior Organizational Performance.

7. Limitations and further direction

There are several other important factors may influence on market orientation such as environmental factors (i.e., Market dynamism, Technological turbulence, Competitive intensity) which are not considered in this study. Also, our sample size is relatively small. It is more appropriate, if the evaluation of market orientation would have come from both company and customer point of view. We leave this for future investigation. Our data is cross-sectional and from a single source. Although the findings of significant positive interactions have alleviated the common method bias concern, future studies may wish to use data from multiple sources data for more robust causal inferences.

References

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, 39(5), 1154-1184.

Amit, R., & Schoemaker, P. J. (1993). Strategic assets and organizational rent. Strategic management journal, 14(1), 33-46.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.

Akter, S., D'Ambra, J., & Ray, P. (2011). Trustworthiness in mHealth information services: an assessment of a hierarchical model with mediating and moderating effects using partial least squares (PLS). *Journal of the American Society for Information Science* and *Technology*, 62(1), 100-116.

Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the academy of marketing science*, 27(4), 411-427.

Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative science quarterly*, 421-458.

Barney, J. B. (1986). Organizational culture: can it be a source of sustained competitive advantage? *Academy of management review*, 11(3), 656-665.

Bryant, S. E. (2003). The role of transformational and transactional leadership in creating, sharing and exploiting organizational knowledge. *Journal of Leadership & Organizational Studies*, 9(4), 32-44.

Carmeli, A. (2004). Strategic human capital and the performance of public sector organizations. *Scandinavian Journal of Management*, 20(4), 375-392.

Connor, T. (2002). The resource-based view of strategy and its value to practising managers. Strategic change, 11(6), 307-316.

Cameron, K. S., & Quinn, R. E. (2005). *Diagnosing and changing organizational culture: Based on the competing values framework.* John Wiley & Sons.

Cheung, C. M., & Lee, M. K. (2010). A theoretical model of intentional social action in online social networks. *Decision support systems*, 49(1), 24-30.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research*, 14(2), 189-217.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.

Crawford, C. B., Gould, L. V., & Scott, R. F. (2003). Transformational leader as champion and techie: Implications for leadership educators. *Journal of Leadership Education*, 2(1), 1-12.

Day, G. S., & Wensley, R. (1988). Assessing advantage: a framework for diagnosing competitive superiority. *The Journal of Marketing*, 1-20.

Deshpande, R., & Webster Jr, F. E. (1989). Organizational culture and marketing: defining the research agenda. *The Journal of Marketing*, 3-15.

Dessler, G. (2001). *Management: Leading people into the 21st Century*.

DeTienne, K. B., Dyer, G., Hoopes, C., & Harris, S. (2004). Toward a model of effective knowledge management and directions for future research: Culture, leadership, and CKOs. *Journal of leadership & organizational studies*, 10(4), 26-43.

Day, G. S. (1994). The capabilities of market-driven organizations. *The Journal of Marketing*, 37-52.

Deacon, J. (2008). *The Contribution of Knowledge Management practices in generating a Corporate Culture of Innovation*. Graduate School of Business Leadership University of South Africa.

Dess, G. G., & Robinson, R. B. (1984). Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. *Strategic management journal*, 5(3), 265-273.

Deshpande, R., Farley, J. U., & Webster Jr, F. E. (1993). Corporate culture, customer orientation, and innovativeness in Japanese firms: a quadrad analysis. *The journal of Marketing*, 23-37.

Donate, M. J., & Guadamillas, F. (2010). The effect of organizational culture on knowledge management practices and innovation. *Knowledge and Process Management*, 17(2), 82-94.

Evans, K. R., McFarland, R. G., Dietz, B., & Jaramillo, F. (2012). Advancing sales performance research: A focus on five underresearched topic areas. *Journal of Personal Selling & Sales Management*, 32(1), 89-105.

Farrell, M. A., & Oczkowski, E. (2002). Are market orientation and learning orientation necessary for superior organizational performance? *Journal of market-focused management*, 5(3), 197-217.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.

Gefen, D., & Straub, D. W. (2000). The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the association for Information Systems*, 1(1), 8.

Gatignon, H., & Xuereb, J. M. (1997). Strategic orientation of the firm and new product performance. *Journal of marketing research*, 77-90.

Glisson, C., & James, L. R. (2002). The cross-level effects of culture and climate in human service teams. *Journal of Organizational Behavior*, 23(6), 767-794.

Gudergan, S. P., Ringle, C. M., Wende, S., & Will, A. (2008). Confirmatory tetrad analysis in PLS path modeling. *Journal of Business Research*, 61(12), 1238-1249.

Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of management journal*, 49(4), 693-706.

Hair, J. R., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis.* Upper Saddle River, NJ: Prentise-Hall.

Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market orientation and organizational performance: is innovation a missing link? The Journal of marketing, 30-45.

Hall, R. (1992). The strategic analysis of intangible resources. *Strategic management journal*, 13(2), 135-144.

Helm, S., Eggert, A., & Garnefeld, I. (2010). *Modeling the impact of corporate reputation on customer satisfaction and loyalty using partial least squares*. In Handbook of partial least squares (pp. 515-534). Springer Berlin Heidelberg.

Henseler, J., & Fassott, G. (2010). *Testing moderating effects in PLS path models: An illustration of available procedures*. In Handbook of partial least squares (pp. 713-735). Springer Berlin Heidelberg.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in international marketing*, 20(1), 277-319.

Hitt, M. A., Nixon, R. D., Clifford, P. G., & Coyne, K. P. (1999). The development and use of strategic resources. *Dynamic strategic resources: Development, diffusion and integration*, 1, 14.

Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: an integration and empirical examination. *The Journal of Marketing*, 42-54.

Im, S., & Workman Jr, J. P. (2004). Market orientation, creativity, and new product performance in high-technology firms. *Journal of marketing*, 68(2), 114-132.

Judson, K., Schoenbachler, D. D., Gordon, G. L., Ridnour, R. E., & Weilbaker, D. C. (2006). The new product development process: let the voice of the salesperson be heard. *Journal of Product & Brand Management*, 15(3), 194-202.

Joshi, A. W. (2010). Salesperson influence on product development: insights from a study of small manufacturing organizations. *Journal of Marketing*, 74(1), 94-107.

Judson, K., Schoenbachler, D. D., Gordon, G. L., Ridnour, R. E., & Weilbaker, D. C. (2006). The new product development process: let the voice of the salesperson be heard. *Journal of Product & Brand Management*, 15(3), 194-202.

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: antecedents and consequences. *The Journal of marketing*, 53-70.

Kirca, A. H., Jayachandran, S., & Bearden, W. O. (2005). Market orientation: A meta-analytic review and assessment of its antecedents and impact on performance. *Journal of marketing*, 69(2), 24-41.

Krause, D. E. (2004). Influence-based leadership as a determinant of the inclination to innovate and of innovation-related behaviors: An empirical investigation. *The leadership quarterly*, 15(1), 79-102.

Komiak, S. Y., & Benbasat, I. (2006). The effects of personalization and familiarity on trust and adoption of recommendation agents. *MIS quarterly*, 941-960.

Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: the construct, research propositions, and managerial implications. *The Journal of Marketing*, 1-18.

Lakshman, C. (2009). Organizational knowledge leadership: An empirical examination of knowledge management by top executive leaders. *Leadership & Organization Development Journal*, 30(4), 338-364.

Liu, S. S., Luo, X., & Shi, Y. Z. (2002). Integrating customer orientation, corporate entrepreneurship, and learning orientation in organizations-in-transition: an empirical study. *International Journal of Research in Marketing*, 19(4), 367-382.

Miron, E., Erez, M., & Naveh, E. (2004). Do personal characteristics and cultural values that promote innovation, quality, and efficiency compete or complement each other? *Journal of organizational behavior*, 25(2), 175-199.

Mumford, M. D., Scott, G. M., Gaddis, B., & Strange, J. M. (2002). Leading creative people: Orchestrating expertise and relationships. *The leadership quarterly*, 13(6), 705-750.

Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *The Journal of marketing*, 20-35.

Nguyen, H. N., & Mohamed, S. (2011). Leadership behaviors, organizational culture and knowledge management practices: An empirical investigation. *The Journal of Management Development*, 30(2), 206-221.

Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of management journal*, 39(3), 607-634.

Ribiere, V. M., & Sitar, A. S. (2003). Critical role of leadership in nurturing a knowledge supporting culture. *Knowledge Management Research & Practice*, 1, 39–48

Rodgers, W., & Pavlou, P. (2003). *Developing a predictive model: a comparative study of the partial least squares vs maximum likelihood techniques*. Riverside: Graduate School of Management, University of California, Riverside.

Sharifirad, S. & Ataei, V. (2012). Organizational culture and innovation culture: exploring the relationships between constructs. *Leadership & Organization Development Journal*, 33(5), 494-517.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, 37(3), 580-607.

Slater, S. F., & Narver, J. C. (1994). Does competitive environment moderate the market orientation-performance relationship? *The Journal of Marketing*, 46-55.

Siguaw, J. A., Simpson, P. M., & Enz, C. A. (2006). Conceptualizing innovation orientation: A framework for study and integration of innovation research. *Journal of product innovation management*, 23(6), 556-574.

Schein, E. H. (1984). Coming to a new awareness of organizational culture. *Sloan management review*, 25(2), 3.

Schein, E. (1992). *Organizational Culture and Leadership* San Francisco, CA: Jossey-Bus.

Shipton, H., West, M. A., Dawson, J., Birdi, K., & Patterson, M. (2006). HRM as a predictor of innovation. *Human resource management journal*, 16(1), 3-27.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 509-533.

Teece, D. J., Pisano, G., & Shuen, A. (2009). Dynamic capabilities and strategic management. *Knowledge and strategy*, 77.

Tichy, N. M. (1982). Managing change strategically: The technical, political, and cultural keys. *Organizational dynamics*, 11(2), 59-80.

Tushman, M. L., & O'Reilly, C. A. (1996). The ambidextrous organizations: Managing evolutionary and revolutionary change. *California management review*, 38(4), 8-30.

Von Krogh, G., Nonaka, I., & Rechsteiner, L. (2012). Leadership in organizational knowledge creation: a review and framework. *Journal of Management Studies*, 49(1), 240-277.

Wang, G., & Miao, C. F. (2015). Effects of sales force market orientation on creativity, innovation implementation, and sales performance. *Journal of Business Research*, 68(11), 2374-2382.

WEICK, K. (1985). Sources of order in under organized systems: themes in recent organisation theory. LINCOLN, YS, *Organisational Theory and Inquiry: The Paradigm Resolution*, Sage, Bervely Hills.

Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS quarterly*, 177-195.