

## **The impact of knowledge-oriented leadership on innovation performance of manufacturing and commercial companies of Guilan province**

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### **Abstract**

*In today's turbulent and complex business environment, a company's ability to establish and maintain its competitive advantage lies in its knowledge. In particular, this paper looks at the role of knowledge management practices in a population sample of manufacturing and commercial companies in Guilan province. The research is objective in nature with a descriptive methodology. To select a sample, the convenience method was used. According to the Cochran limited formula, a total of 282 people were selected. In this study, data were analyzed, using descriptive analysis, structural equation modeling and path analysis using SPSS 22 and Lisrel 8.50. The findings showed that knowledge-oriented leadership has an effect on knowledge creation and the application of knowledge. The creation and application of knowledge has effect on innovation performance. Also, knowledge oriented leadership has directly effect on innovation performance.*

**Keywords:** Knowledge-oriented leadership, innovation performance, knowledge management practices, manufacturing companies.

## Introduction

International organizations that are based on the principles of knowledge management develop and implement plans improve the effectiveness of their business processes. In doing so, they increase their productivity and the quality of their services and find solutions and new products for their customers. In this regard, another important factor is leadership style and behavior, which has a significant impact on the direction and effectiveness of knowledge management in organizations (Mohamed and Nguyan, 2011). Companies can use knowledge-oriented leadership to develop their knowledge management practices and improve the willingness of employees in their innovation performance. Managers should establish the ideal operating conditions to optimize an organization's use of knowledge management practices and initiatives through the design of tools such as human resource management practices (Lin, 2011).

Knowledge-oriented leadership is essential for technology-oriented organizations. It is an approach that is rapidly developing and gaining attention to improve the effectiveness of processes, along with continuous innovation. The need for knowledge leadership stems from the fact that knowledge practices within innovation performance and access to a sustainable competitive advantage are for business success. Indeed, leadership is an essential condition for the development and knowledge management practices to encourage innovation especially in technology-intensive companies. In this regard, companies that assign a higher value to knowledge-oriented leadership are often more successful (Donate and de Pablo, 2014).

Innovation performance is the combination of the overall success of an organization in order to modernize and improve the result of its efforts and the implementation of various aspects of innovation within the organization. In the literature, innovation performance is one of the most important drivers of other functional aspects of an organization regarding continuous efforts to improve, renew, explore, learn from mistakes and compromise the competitive environment too quickly (Gunday et al., 2011). This concept can be achieved through exploratory innovation by reforming existing knowledge and skills to develop, responses to customer needs and environmental conditions (Zhou and Wu, 2010). Innovation performance helps organizations to improve and develop new products and processes and is considered a competitive advantage (Xu and Li, 2009). Companies must be able to innovate and adapt to market changes to remain competitive, and successful innovation can help them to achieve greater profits (Martinez, 2014).

New modes of behavior and new innovative ideas are essential for an organization to function (Tamay -Torres et al., 2010). Innovation performance is often reported alongside a company's achievements, records and reports of new projects. In addition, comparing the quality of a company's new products and new processes with rival firms reveals innovation practices (Hung, 2011). Companies quickly adapt to changes brought

about by innovation performance and see their profit and market participation increase (Zehir et al., 2012). A manufacturing or commercial company with weak innovation performance will be unwilling to introduce new products, or processes. It will also be unable to respond quickly to market changes or to introduce new competitive processes, due to, lack of adequate employee training and will therefore have a reduce number of products on offer in the market ( Kazazi and Scholl, 2013).

Knowledge-oriented leadership is defined as any attitude or action- joint or individual, observed or imputed- that prompts new and important knowledge to be created, shared, and utilized in ways that bring a shift in thinking and collective outcomes. (Mabey et al., 2012). Knowledge- oriented leadership implies role of knowledge management practices of companies in order to realize the opportunities for innovation (Donate & de pablo, 2014). Leaders must act as a advisor so that employees can recognize how knowledge management practices and job help them guaranty communications. Communications is vital for leaders to clearly show their expectations of the company and eliminate communication barriers (Schermehorn, 2012). In this research, knowledge management practices are seen as having two dimensions. Knowledge creation makes a stronger commitment in R&D activities and is useful for creative learning experiences (Von Krogh et al., 2012). Application of knowledge should focus on the integration and use of knowledge for organizational activities and solveing problems more easily and effectively (Zack et al., 2009).

Knowledge-oriented leadership behavior and innovation performance regarding to knowledge management practices is necessary for technology intensive organizations in order to improvement of innovation performance through development and implementation of knowledge management practices. Knowledge-oriented leadership is a driving force for knowledge management measures that are indirectly linked with innovation performance. In fact, the leadership is broader knowledge-based company, has developed knowledge management practices, which in turn affects the performance of innovation. (Donate & De pablo, 2014). A number of studies have already been conducted in this field. Hossieni and et al (2013) conducted a study on the role of organizational learning in innovation performance, and found that enhanced the innovative performance elements of learning. The population of the investigation is all supervisors and employees of Industrial Co. Caspian seal is the sample number is 400 people, according to Morgan, and the results have a positive impact, direct and meaningful innovation performance of showed learning. Donate and de Pablo (2014) as the leading knowledge-based research on knowledge management and innovation activities carried out a study consisting of 802 senior managers of a company in Spain resulting in a usable sample of 111 completed questionnaires. The results showed that knowledge management practices play a mediating role in the relationship between leadership, knowledge-oriented leadership and innovation performance.

## Literature review

### Innovation performance

The process of innovation performance in the application of new or improved services and delivery of products or technology to increase efficiency is a matter of concern and will be measured in terms of the introduction of new or significantly improved processes. Innovation performance will be considered according to the introduction of new methods or improving existing methods of how to work, how to organize, and how to ensure effectiveness and efficiency in a specific channel involving foreign cooperation to increase the company's internal operations. With respect to the introduction of new or improved organizational innovation performance in job training or internal knowledge sharing, flexible work, supply management or the management of production, output specific tasks and relationships with suppliers, customers or government are measured (Cho et al., 2011). Today, companies must focus on their innovation performance to allow their market share and profits to significantly increase (Moradi et al., 2013).

### Knowledge-oriented leadership

Knowledge-oriented leadership rather than the position of the association focused, innovative learning processes and of the influence of subjective knowledge exchange, implicit and explicit support over time (Peet, 2012). Knowledge-oriented leadership is defined as the process by which individual members of other groups supporting the learning cycle needed to achieve the goals of a group or organization. Knowledge leadership may develop mechanisms to respond and control the sharing of knowledge with customers to help. Knowledge-oriented leadership is defined as the process by which individual members of other groups supporting the learning cycle needed to achieve the goals of a group or organization. Leadership development mechanism for accountability and control is possible knowledge sharing with customers help (Yang et al, 2014). The emergence of knowledge led to conflicts parametric range can be aligned field. The term knowledge management has been established in the past two decades. The researchers acknowledged that the concept of a knowledge-oriented leader in the true sense is not very well known. This type of leadership as a new paradigm for the entire field of knowledge management has been proposed. In most cases, it can be argued as an alternative view to managing and understanding until the new base for general principles (Huvila, 2014).

### Knowledge management practices

Knowledge management practices are set of activities and strategies that companies use to improve organizational performance, knowledge creation, storage, transfer and operate. In this paper, two cases of knowledge creation and application of knowledge taken into consideration. According to the definition of the principle of acquired experience and skills of employees. When knowledge is created when people find new ways of doing things or develop essential knowledge. Knowledge of social interaction and cooperation organization (philanthropist et al., 1393). To create knowledge,

knowledge- oriented leadership creates condition that leads to a stronger commitment to R & D activities for innovative learning and be tested (Von Krogh et al., 2012).

Application of knowledge on the integration and application of knowledge to solve easier problem and the effectiveness of its organizational activities focused ( Zack et al.,2009). The ultimate goal of knowledge management, application of knowledge to improve the performance of the organization. Knowledge will be invaluable when applied to (Nikookar et al., 2014).

In the literature we have to admit that the leadership is broader knowledge-oriented companies, knowledge management practices will be developed and therefore affect the performance of innovation. Knowledge leadership behavior must lead knowledge management within the company. Knowledge- oriented leaders with the support of channel development and knowledge management efforts, they make use of style, motivation, communication and promotion recruitment and leads the company's innovation performance (Donate & de Pablo, 2014). Knowledge-oriented leaders act in a way that encourages learning by challenging their employees and encourage and institutionalize learning through the provision of incentives and training, fostering a culture of learning and fault tolerance and development of transfer, storage, affect knowledge creation ( Williams & Sullivan, 2011.)

In the last researches, Donate and de Pablo (2014) showed that knowledge oriented leadership has an impact on creation and application knowledge. They concluded that there is relationship between creation and application knowledge with innovation performance. Also, Yang et al (2014) showed relationship between knowledge oriented leadership and application knowledge.

Therefore, using the conceptual model of literature can be found as follows:

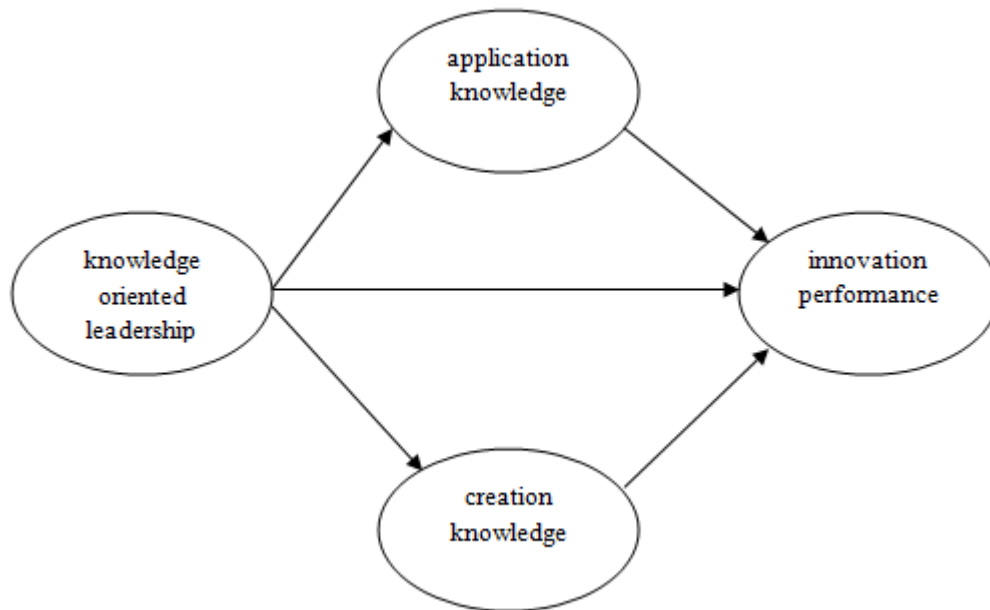


Fig1. Research model

## Hypotheses

Based on the objectives defined hypothesis of the present study are as follows:

**Hypothesis 1:** knowledge creation has an impact on innovation performance of manufacturing and commercial companies of Guilan province.

**Hypothesis 2:** application of knowledge has an impact on the innovation performance of manufacturing and commercial companies of Guilan province.

**Hypothesis 3:** knowledge-oriented leadership has an impact on creation knowledge of , manufacturing and commercial companies of Guilan province.

**Hypothesis 4:** knowledge-oriented leadership has an impact on application knowledge of manufacturing and commercial companies of Guilan province.

**Hypothesis 5:** knowledge-oriented leadership has an impact on innovation performance of manufacturing and commercial companies of Guilan province.

## Materials and Methods

This research has been carried out based on structural equation modeling (SEM) analyses among 282 managers of manufacturing and commercial companies of Guilan provinc, Iran. The sample size was defined based upon Cochran limited formula. The total number of companies under study was 2500 and 282 samples were selected according to the above mentioned formula. In addition, the convenience method was also considered for sampling. To evaluate the research variables, six questionnaire relating to Knowledge-oriented leadership (presented by Ribiere, Sitar & Sadler, 2003), creation knowledge (offered by Zahra and Ahmed, 2004), application knowledge ( studied by Wang and Ahmed, 2004), and innovation performance ( presented by Zahra and Bogner, 1999). Validity procedures designed according to the experts that were translated from foreign sources and after verification, was used. But what this study is to determine the reliability of the questionnaire used by emphasizing internal consistency, Cronbach's alpha coefficient is applied (Skaran, 2013). To calculate Cronbach's alpha reliability coefficient of the questionnaire to 30 managers of companies and have been calculated using SPSS 22 software.

**Table1. Alfa Cronbach's**

Research dimensions	Number of questions	Cronbach's Alfa
Creation knowledge	7	0.764
Application knowledge	5	0.801
Knowledge oriented leadership	6	0.817
Innovation performance	5	0.819

## Findings

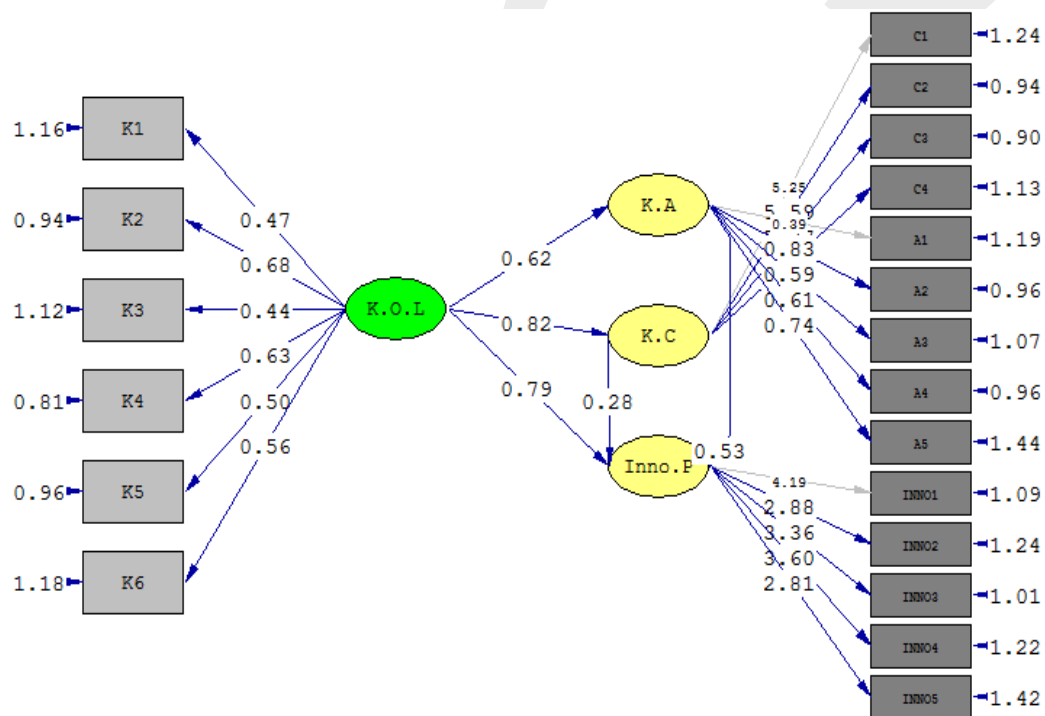
Before examining hypotheses, it is necessary to consider mean, standard deviation and variance.

**Table2. Descriptive Statistics**

Variables	Mean	S.D	Variance
Knowledge oriented leadership	3.82	0.69	0.48
Application knowledge	3.46	0.78	0.52
Creation knowledge	3.55	0.77	0.59
Innovation performance	3.73	0.71	0.51

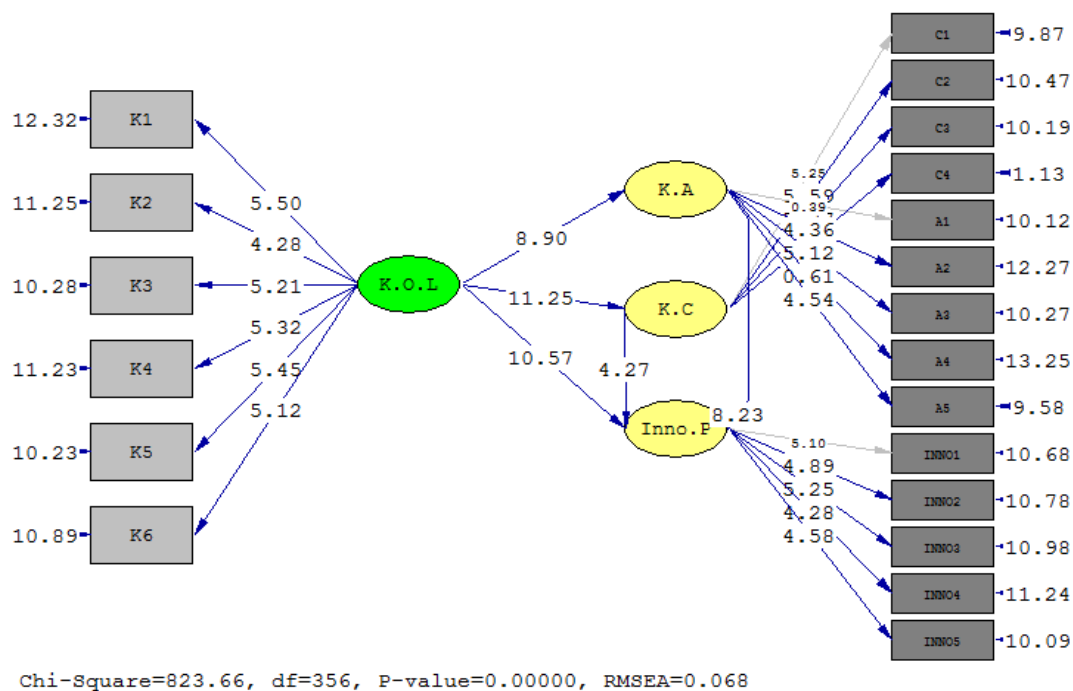
The situation with respect to both the standard and the significant estimates are as follows: After the testing models, it is necessary to the structural model showing the relationship between latent variables investigation, to be provided. Using the structural model can be used to check the hypotheses. Structural model study was conducted using LISREL software version 8.5. The following chart shows the overall research on the standard estimate.

The next output coefficients and parameters obtained significant part of the overall study shows the measurement model. The significance test between the individual coefficients greater than 1.96 and 1.96 is smaller. It can be concluded that according to the significant numbers of coefficients and the relationships between variables all hypothesis were confirmed. Standard and T value model are shown respectively. In this study, (K.O.L), (K.A), (K.C), (Inno.p) are abbreviations of knowledge oriented leadership, knowledge application, knowledge creation and innovation performance, respectively.



Chi-Square=823.66, df=356, P-value=0.00000, RMSEA=0.068





According to the base significant model, the t-statistic is equal to 4.27 and from there outside of the range [1.96 & 1.96] denotes the hypothesis is confirmed. According to the standard model can be said that the relationship between knowledge creation and innovation performance is equal to 0.28. In other words the creation of knowledge by 28 percent by the Guilan and commercial innovation in manufacturing firms are related. The second hypothesis is about the impact of knowledge on innovation performance. According to the base model in significant research, the t-statistic is equal to 8.23 and from there out of range [1.96 & 1.96] this hypothesis remains to be confirmed. According to the standard model can be said that in relation to the application of science and innovation performance is equal to 0.53, in other words the application of science to the amount of 53% of the innovation performance in related manufacturing and commercial Guilan province. The third hypothesis is referred to the impact of the knowledge-oriented leadership on creation knowledge. According to the base significant model, the t-statistic is equal to 11.25, and from there out of range [1.96 & 1.96] denotes the hypothesis is confirmed. According to the standard model can be said that the relationship between knowledge creation and innovation performance is equal to 0.82 to 82 percent in other words a knowledge-based leadership is associated with knowledge creation. The fourth hypothesis is about the impact of leadership knowledge. Due to the usage of the base model in significant research, the t-statistic is equal to 8.90 and from the outside of the interval [1.96 - & 1.96] Contract This hypothesis is confirmed. According to the standard model can be said that the relationship between leadership, knowledge and application of

knowledge is equal to 0.62, in other words a knowledge-based leader in the 62 percent with the use of knowledge manufacturing companies Commercial Guilan related. Fifth hypothesis related to knowledge management practices of mediator role in the relationship between knowledge- oriented leadership and innovation performance. According to the significant base model in , the t-statistic knowledge- oriented leadership with knowledge of the components of knowledge management practices and application of knowledge is confirmed as both out of range [1.96 & 1.96] is located. According to the sixth hypothesis according to the Standard Model can be said that the relationship between knowledge management and innovation performance against the 0.79 is, in other words, knowledge leadership to the 79% of the innovation performance of manufacturing and commercial companies of Guilan linked and statistics t is equal to 10.57. To investigate the impact of the direct and indirect effects of endogenous variables necessary to model in the table (3) is provided.

**Table3. Structural model: decomposition of effects**

Path Analyses		Direct and indirect effect
Knowledge oriented leadership knowledge	application	(0.62) 8.90
Knowledge oriented leadership knowledge	creation	(0.82) 11.25
Knowledge oriented leadership performance	innovation	(0.79) 10.57
application knowledge performance	innovation	(0.53) 8.23
creation knowledge performance	innovation	(0.28) 4.27
Knowledge oriented leadership knowledge	application innovation performance	(0.33) (8.23) (8.90)
Knowledge oriented leadership innovation performance	creation knowledge	(0.23) (0.82)( 4.27)

## **Conclusions**

According to the analysis of the findings, it showed that the impact of knowledge on innovation performance was confirmed and managers of companies with a certain type of knowledge-oriented leadership for development and improvement of technology regarding to R&D activities and convenient use of technology help innovation performance. Company's investment can effect on R&D activities and experienced unit in order to development and improvement of technology. According to the findings of a study the impact of the application of knowledge on the innovation performance was confirmed. Also, access to relevant information and key knowledge and use of scientific knowledge used and the integration of different groups can lead to innovation performance. Managers by organizing knowledge and its application and use in different units from offer customers, vendors can play an important role in the application of knowledge. According to the analysis of the results showed that knowledge-oriented leadership has effect on knowledge creation. Because of weaknesses in the management of knowledge and innovation, leadership duties conform at issue in the assessment and external knowledge sharing and stored faced by managers.

Commercial and manufacturing companies can help to individuals who operate in R&D activities through investment absorption in market. Since the findings of the study showed that the use of effective leadership, knowledge, managers should seek to establish a working group of experts from the sub-units of information terminals that if the problems encountered to help them through the integrated application of knowledge the knowledge to be solved. Companies consider new ideas and changes, increasing their capacity to use scientific background to be able to have a sustainable competitive advantage over competitors in the innovation performance gain. According to analysis of the impact of research findings on innovation performance knowledge-oriented leadership was confirmed. Also, managers can plan using appropriate knowledge and learning through visual learning on how to do rival's products improvement. Manufacturing companies will also have to take advantage of new ideas to think about delivering products in accordance with the wishes and demands of their customers, and otherwise, they can't compete with rivals.

## References

Cho, I; Park, H ; Choi, J. (2011). "The impact of diversity of innovation channels on innovation performance in service firms" .*Serv Bus* 5, Issue 3:, pp 277–294.

Donate,J,M, Jesus D. Sánchez de Pablo. (2014). "The role of knowledge-oriented leadership in knowledge management practices and innovation". *Journal of Business Research*, Volume 68, Issue 2, February, Pages 360 –370.

Gholamreza, Kh (2010). "Research methodology in management". Center of scientific publications Islamic Azad university.

Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2011). "Effects of innovation types on firm performance". *International journal of Production Economics*, 133, 662-676.

Huvila , I ( 2014). "Towards information leadership". *Aslib Journal of Info Mgmt* , 66, 663-677.

Hung, R. Y. Y., Lien, B. Y. H., Yang, B., Wu, C. M., & Kuo, Y. M.( 2011). "Impact of TQM and organizational learning on innovation performance in the High-Tech Industry". *International Business Review*, 20(2), 213-225.

Khalife soltani, H; Hosseini,M, Asgari, N. (2010). "Empowerment leadership style of knowledge management". *Human resource quarterly university of Emam Hossein university*, second year, N 2and3, pp. 149-166.

Kazazi, A; Shol,A. (2013). "The impact of TQM on innovation performance. Moderator role of organizational learning". *Scientific research of management studies quarterly*, N 71,pp.1-17.

Lin, H. F. (2011). "The effects of employee motivation, social interaction, and knowledge management strategy on KM implementation level ". *Knowledge Management Research & Practice*, 9(3), 263–275.

Moradi, M; Valipoor ,Y ; Keykhosro, S. Abdollahiyan, F. (2013). "Investigation of role of knowledge absorption capacity on innovative performance of organizations(Case study, pharmaceutical and insurance companies in Tehran) ".*Journal of outlook business management*, N13,pp. 10-79.

Mohammadi, A; Amin bidokhti, A; Jamshidi, Laleh.(2014). "Investigating role of organizational learning in increasing of innovation performance". *Journal of innovation and value creation*, N4,pp. 84-95.

Mabey, C., Kulich, C. & Lorenzi-Cioldi, F. (2012). "Knowledge leadership in global scientific research". *The International Journal of Human Resource Management*, 23(12), 2450-2467.

Martínez, F.J. Diaz-Garcia, C. and González-Moreno, A(2014). "Environmental orientation as a determinant of innovation performance in Young SMEs". *International Journal of Environment. Research.*, 8(3):635-642,Summer.

Nikookar, Gh; Asgari, N; Gholami,M; Rahimi, E (2014). " The Role of intellectual capital in facilitating of knowledge management practices". *Public management Quarterly*, N2, pp. 401-418

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

Peet, M. (2012). "Leadership transitions: tacit knowledge sharing and organizational generativity". *Journal of Knowledge Management*, 16, 25–60.

Schermerhorn, J. R.(2012). *Management* (11th ed.). John Wiley & Sons: New York.

Shakeri,F,Mehrjoodi, M,H; Dehghan Dehnavi, H.(2010). "Investigation of relationship of organizational atmosphere and innovation in process". *Journal of Scientific Research of Production and Operational Management* N1, pp. 29-46.

Tamayo-Torres, I. (2010). "The moderating effect of innovative capacity on the relationship between real options and strategic flexibility". *Industrial Marketing Management*, Vol. 39, pp. 1120-1127.

Tarivardi, Y; Damchi jelodar,Z.(2011). "The relationship of risk management and performance of company". *Journal of financial accounting and auditing*, forth, N4, pp. 43-62.

Von Krogh, G., Nonaka , I., & Rechsteiner, L. (2012). "Leadership in organizational knowledge creation: A review and framework". *Journal of Management Studies*, 49, 240–254.

Williams, P., & Sullivan, H. (2011). "Lessons in leadership for learning and knowledge management in multi-organisational settings". *The International Journal of Leadership in Public Services*, 7(1), 6–20.

Yang, P.Y. and Chang, Y.Ch. (2010). "Academic research commercialization and knowledge production and diffusion: the moderating effects of entrepreneurial commitment". *Journal of Scientometrics*, 83(1): 403-421.

Yang,L ,C- Huang, T Hsu.(2014). "Knowledge leadership to improve project and organizational performance". *International Journal of Project Management* 32,40-53.

Ying, H, M; Jian-peng ,W. (2013). "The Impact of Shared Leadership on Innovation Performance". *International Conference on Management Science & Engineering* (20th), Harbin, P.R.China. pp. 1385 - 1390.

Zack, M., Mckeen, J. and Singh, S. (2009). "Knowledge management and organizational performance: an exploratory analysis". *Journal of Knowledge Management*, Vol. 13 No. 6, pp. 392-409.

Zehira,C, Oznur Gulen Ertosunb, Zehirc,S, Müceldilli,B. (2012). "Total Quality Management Practices' Effects on Quality Performance and Innovative Performance". *International Conference on Leadership, Technology and Innovation Management, Procedia - Social and Behavioral Sciences* 41 273 – 280.

Zhou, K. Z., & Wu, F.( 2010). "Technological capability, strategic flexibility, and product innovation". *Strategic Management Journal*, 31(5): 547-561.