



Identifying the Relationship between Human Resource Development Strategy and Organizational Innovation with the Mediating Role of Knowledge Management (Case Study: Supplying Fund for Physical Damages)

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Abstract: Innovation is an important and vital factor for organizations for creating value and sustainable competitive advantage in today's complex and changing environment. Organizations will be more successful with more innovation in response to changing environments and creating and developing new capabilities that will allow them to achieve better performance. Innovation initiatives and measures largely depend on the knowledge, expertise and commitment of employees as the input data of the value creation process. In this research, it was tried to investigate the role of knowledge management capacity in relation to the measures of strategic human resource management and innovation performance from a knowledge-based viewpoint. The results of this research showed that strategic measures of human resource management are positively related to innovation performance and knowledge management. Also, the strategic measures of human resource management are positively related to the knowledge management capacity. The strategic measures of human resource management are useful and profitable to motivate employees' tendency to acquire, share and apply knowledge in organizations. The appropriate strategic measures of human resource management can support and enhance the development of an organizational environment that contributes to the knowledge management activities. Also, the knowledge management capacity in the dimensions of acquisition, sharing and application greatly and positively contributes to the innovation performance of the organization.

Keywords: Human Resources, Strategy, Organizational Innovation, Knowledge Management.

INTRODUCTION

Nowadays, along with various advancements in various sciences, especially in the area of technologies, the path of organizations and institutions have been transformed from being at one place, namely, traditionalism to mobility and accompanying with a change and shift towards the development route and applying various technologies as a tool for serving their customers and clients with more desirable quantity and quality, and concepts such as idea creation and innovation have been considered more than before, and also being innovative by any organization in the industry of its own activity is one of the goals defined by all organizations, so that we witness various costs as budget for researches and designing services and products by institutions and organizations (Damanpour, 1991).

To create innovation, organizations can rely on human capital to create expertise in the production and operation of offering new services, but the expertise is very complex and is basically the result of conscious activities of individuals in duties related to an area. In carrying out these conscious activities, those people are required who have tendency to perform duties and strive to improve performance. Innovation is a process that embraces all levels of the organization. Every organization has to live along with innovation in order to continue its successful life. Innovation in organizations has increasingly grown in recent years, and today, with the help of technology, this growth has accelerated.

Research Method

Considering that the present research is aimed to investigate the impact of human resource development strategies and organizational innovation with the mediator role of knowledge management in the supplying fund for physical damages and the knowledge development in the organization, it is an applied research in terms of purpose, and in terms of collecting data, it is descriptive of survey type. In order to collect data, in respect of theoretical foundations and subject research literature, the library resources, articles, desired books, and also the internet have been used, and in order to collect data and information for analysis, the questionnaire has been used. For this purpose, based on the variables investigated, 55 five-option questions were compiled. Content validity was used for the reliability and validity of questionnaire. In this research, Cronbach's alpha method was used to calculate the reliability of questionnaire. The statistical population of present research is in the insurance industry, which is particularly implemented in the supplying fund for physical damages. In order to determine the statistical sample of research, Cochran's relation has been used, based on which the number of statistical sample was determined 169 people: In this research, both descriptive statistics and inferential statistics methods have been used to analyze the obtained data. In fact, the research variables are first tested by the aid of inferential statistics methods, which the structural equations method is specifically applied.

Research Conceptual Model

The research conceptual model was presented based on the variables in the article of Zahir et al. in 2016, and it was also presented based on the proposed model of organizational innovation in the Chen and Huang article in 2015, as a combination of variables and the presented model in the mentioned researches as figure 1:



Figure 1: Research Theoretical Framework

Research Hypotheses

Main Hypotheses

- 1) The measures of strategic human resource management have a significant relationship with knowledge management.
- 2) The measures of strategic human resource management have a significant relationship with organizational innovation.
- 3) Knowledge management has a significant relationship with organizational innovation.

Research Minor Hypotheses

- 1) Strategic human resource management has a significant relationship with process innovation.
- 2) Strategic human resource management has a significant relationship with administrative innovation.
- 3) Strategic human resource management has a significant relationship with service innovation.
- 4) Knowledge management has a significant relationship with process innovation.
- 5) Knowledge management has a significant relationship with administrative innovation.
- 6) Knowledge management has a significant relationship with service innovation.

Research History

Boroumand and Ranjbari in their article in 2009 investigated the role of knowledge management capacity in relation to strategic measures of human resource management and innovation performance from a knowledge-based point of view. The results of this article showed that the strategic measures of human resource management are positively related to innovation performance. Also, the strategic measures of human resource management are positively related to the knowledge management capacity. The strategic measures of human resource management are useful and profitable in motivating employees' tendency to acquire, share, and apply knowledge in organizations.

In 2010, Sadeghi and Mohtashami conducted a research aiming to assess the relationship between the strategic operations of human resources and organizational innovation. The results show that there is a positive and significant relationship between the strategic operations of human resource management and organizational innovation.

Safarzadeh et al. (2011) investigated the impact of knowledge strategies of human resources on organizational innovation and performance. Findings of the research confirm the direct relationship between innovation and organizational performance variables with coding strategy and the direct relationship of these variables with the knowledge personalization strategy.

Imanipour et al. in 2012 in their article investigated the role of electronic human resource management in organizational innovation in Saderat Bank. The findings of this research showed that electronic payment and reward subsystems based on performance, performance management and training management have the highest impact on encouraging employees towards innovation.

Hashemi et al. in 2016 in their article have investigated the relationship between strategic human resource management and innovative performance with the knowledge management approach. Research findings showed that human resource management impacts on organizational innovation, and also strategic human resource management impacts on knowledge management, and knowledge management also impacts on organizational innovation.

Hosseini et al. in 2017 in their article investigated the impact of human resource management functions on organizational performance, with regard to the mediating variable of marketing capability. The results of this research showed that human resource management functions have a positive and significant impact on marketing capabilities and organizational performance. Also, marketing capabilities have a positive and significant impact on organizational performance.

In 2009, Larsen & Foss in investigating the impacts of modern human resource measures on the innovation performance of companies in various sectors classified the human resource variable in two human resource systems. Their findings show that innovative performance in the four sectors of industry is related to the first system, while the sales and ICT sectors are related to the second system.

In 2010, Gablo and Lopes investigated the relationship between environmental factors and human factors and the use of innovative human resource measures. The results show that external variables such as workforce access and general survey variables have linear relationship with the application of human resource measures, while the arbitrary relationship with that is a nonlinear relationship. Based on organizational

factors, organizational administration has more linear impact on the use of human resources measures than formalization and concentration.

In 2010, Lepak used 4 criteria including recruitment, service compensation, status barriers and training to provide innovative human resource measures for investigating the impacts of innovative human resource measures on industry. He shows that the integration of a set of human resource measures is positively related with productivity improvement.

In 2010, Chang and Ching presented a research entitled as "Strategic measures of human resources and innovation performance". The results confirm the moderating effect of knowledge management capacity in the relationship between strategic measures of human resources and innovation.

Chang and Hang in 2011 conducted a research entitled as "Human resources system, organizational culture and products innovation". Research findings obtained through 332 questionnaires distributed among Hong Kong companies confirm that organizational culture has a mediating role in the relationship between human resources system and products innovation.

In 2013, Chu et al. conducted a research entitled as "Measuring the impact of human resource management measures on performance". The findings of research show that some human resource management measures (employees' participation, reward, pre-employment tests) have a significant impact on the non-managerial employees' replacement rate.

In 2014, Choline and Clark by conducting a research, investigated the relationship between human resource management measures and company performance. The results show that human resources measures and company performance (stock growth and sales growth) are moderated through the social network of top managers.

Valey and Umar wrote an article in 2016 entitled as "Investigating the role of human resources development strategies on strategic innovation capabilities". The results showed that human resource development strategies have a positive and significant impact on organizational innovation.

Research Findings

Analyzing Demographic Data of Respondents

Respondents' Gender Distribution

The first demographic factor is gender; among those who are regarded as the sample (129 people) of this research 81% are men and 19% are women.

Table 1: Respondents' Gender Distribution

Gender	Frequency	Frequency Percentage
Men	106	81%
Women	33	19%
Total	129	100%

Respondents' Education Level Distribution

The second demographic factor is respondents' education level.

Table 2: Respondents' Education Level Distribution

Education Level	Frequency	Frequency Percentage
Diploma	0	0
Associate	0	0
Bachelor	31	22%
Master	81	65%
Ph.D.	17	13%
Total	129	100%

Respondents’ Work Experience Ratio Distribution

The third demographic factor is the status of respondents’ work experience ratio.

Table 3: Respondents’ Work Experience Distribution

Work Experience	Frequency	Frequency Percentage
Less than 5	5	3.6%
Between 5 to 15	13	10.4%
Between 15 to 25	68	53.5%
Between 25 to 35	35	26.4%
More than 35	7	6.2%
Total	129	100%

Respondents’ Organizational Position Distribution

The last demographic factor is the Respondents’ organizational position.

Table 4: Respondents’ Organizational Position Distribution

Organizational Position	Frequency	Frequency Percentage
Deputy	49	38%
Manager	65	50%
Expert	15	12%
Total	129	100%

Investigation of Normality (Kolmogorov Smirnov) for the Variable of Human Resource Management Measures

H⁰: Data is normal (data has come from normal population)

H¹: Data is not normal (data has not come from normal population)

Table 5: Normality Test Results for the Variable of Human Resources Management Measures

Variable	Significance Level	Error Value	Hypothesis Confirmation	Conclusion
Human Resources Management Measures	0.079	0.05	H ⁰	normal

Since the value of the significant level is equal to 0.079 and higher than the error value (0.05), then we conclude hypothesis zero, that is, the variable of human resource management measures is normal.

Investigation of Normality (Kolmogorov Smirnov) for the Variable of Knowledge Management

H⁰: Data is normal (data has come from normal population)

H¹: Data is not normal (data has not come from normal population)

Table 6: Normality Test Results for the Variable of Knowledge Management

Variable	Significance Level	Error Value	Hypothesis Confirmation	Conclusion
Knowledge Management	0.091	0.05	H ⁰	normal

Since the value of significant level is equal to 0.091 and higher than the error value (0.05), then we conclude hypothesis zero, that is, the variable of human resource management measures is normal.

Investigation of Normality (Kolmogorov Smirnov) for the Variable of Organizational Innovation

H⁰: Data is normal (data has come from normal population)

H¹: Data is not normal (data has not come from normal population)

Table 7: Normality Test Results for the Variable of Organizational Innovation

Variable	Significance Level	Error Value	Hypothesis Confirmation	Conclusion
Organizational Innovation	0.083	0.05	H ⁰	normal

Since the value of significant level is equal to 0.083 and higher than the error value (0.05), then we conclude hypothesis zero, that is, the variable of organizational innovation measures is normal.

Investigation of Normality (Kolmogorov Smirnov) for the Variable of Process Innovation

H⁰: Data is normal (data has come from normal population)

H¹: Data is not normal (data has not come from normal population)

Table 8: Normality Test Results for the Variable of Process Innovation

Variable	Significance Level	Error Value	Hypothesis Confirmation	Conclusion
Process Innovation	0.102	0.05	H ⁰	normal

Since the value of significant level is equal to 0.102 and higher than the error value (0.05), then we conclude hypothesis zero, that is, the variable of process innovation is normal.

Investigation of Normality (Kolmogorov Smirnov) for the Variable of Administrative Innovation

H⁰: Data is normal (data has come from normal population)

H¹: Data is not normal (data has not come from normal population)

Table 9: Normality Test Results for the Variable of Administrative Innovation

Variable	Significance Level	Error Value	Hypothesis Confirmation	Conclusion
Administrative Innovation	0.092	0.05	H ⁰	normal

Since the value of significant level is equal to 0.092 and higher than the error value (0.05), then we conclude hypothesis zero, that is, the variable of administrative innovation is normal.

Investigation of Normality (Kolmogorov Smirnov) for the Variable of Service Innovation

H⁰: Data is normal (data has come from normal population)

H¹: Data is not normal (data has not come from normal population)

Table 10: Normality Test Results for the Variable of Service Innovation

Variable	Significance Level	Error Value	Hypothesis Confirmation	Conclusion
Service Innovation	0.085	0.05	H ⁰	normal

Since the value of significant level is equal to 0.085 and higher than the error value (0.05), then we conclude hypothesis zero, that is, the variable of service innovation is normal.

By using Kolmogorov Smirnov test, we concluded that all five variables of the measures of strategic human resource management, knowledge management capacity, process innovation, administrative innovation, and service innovation are normal. Therefore, to test these variables, parametric methods were used.

Testing Research Hypotheses

First Hypothesis:

The Measures of Strategic Human Resource Management have A Significant Relationship with Knowledge Management.

H⁰: The measures of strategic human resource management do not have a significant relationship with knowledge management capacity.

H¹: The measures of strategic human resource management have a significant relationship with knowledge management capacity.

Table 11: The Results of Normality Test for the First Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.421

Since the value of significant level is 0.000 and is smaller than the error value (0.05), thus we conclude the hypothesis one. The correlation coefficient value is 0.421, which indicates a direct correlation between the strategic measures of human resource management and knowledge management capacity. Therefore, the first hypothesis of research is confirmed.

Second Hypothesis:

The Strategic Measures of Human Resource Management have A Significant Relationship with Organizational Innovation.

H⁰: The measures of strategic human resource management do not have a significant relationship with organizational innovation.

H¹: The measures of strategic human resource management have a significant relationship with organizational innovation.

Table 12: The results of Normality Test for the Second Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.638

There is a significant relationship between these two variables. The correlation coefficient is 0.638 which indicates a direct correlation between the strategic measures of human resource management and organizational innovation. Therefore, the second hypothesis of research is confirmed.

Third Hypothesis:

Knowledge Management Has A Significant Relationship with Organizational Innovation.

H⁰: Knowledge management does not have a significant relationship with organizational innovation.

H¹: Knowledge management has a significant relationship with organizational innovation.

Table 13: The results of Normality Test for the Third Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.502

There is a significant relationship between these two variables. The correlation coefficient is 0.502 which indicates a direct correlation between knowledge management and organizational innovation. Therefore, the third hypothesis of research is confirmed.

Fourth Hypothesis:

Strategic Human Resource Management has A Significant Relationship with Process Innovation.

H⁰: Strategic human resource management does not have a significant relationship with process innovation.

H¹: Strategic human resource management has a significant relationship with process innovation.

Table 14: The results of Normality Test for the Fourth Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.445

There is a significant relationship between these two variables. The correlation coefficient is 0.445 which indicates a direct correlation between the strategic human resource management and process innovation. Therefore, the fourth hypothesis of research is confirmed.

Fifth Hypothesis:

Strategic Human Resource Management has A Significant Relationship with Administrative Innovation.

H⁰: Strategic human resource management does not have a significant relationship with administrative innovation.

H¹: Strategic human resource management has a significant relationship with administrative innovation.

Table 15: The Results of Normality Test for the Fifth Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	There is a relationship	0.568

There is a significant relationship between these two variables. The correlation coefficient is 0.568 which indicates a direct correlation between the strategic human resource management and administrative innovation. Therefore, the fifth hypothesis of research is confirmed.

Sixth Hypothesis:

Strategic Human Resource Management has A Significant Relationship with Service Innovation.

H⁰: Strategic human resource management does not have a significant relationship with service innovation.

H¹: Strategic human resource management has a significant relationship with service innovation.

Table 16: The Results of Normality Test for the Fifth Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.409

There is a significant relationship between these two variables. The correlation coefficient is 0.409 which indicates a direct correlation between the strategic human resource management and service innovation. Therefore, the sixth hypothesis of research is confirmed.

Seventh Hypothesis:

Knowledge Management Has A Significant Relationship with Process Innovation.

H⁰: Knowledge management does not have a significant relationship with process innovation.

H¹: Knowledge management has a significant relationship with process innovation.

Table 17: The Results of Normality Test for the Seventh Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.469

Since the significance level is 0.000, and it is less than the error value (0.05), thus we conclude the hypothesis one; that is, there is a significant relationship between these two variables. The correlation coefficient is 0.469 which indicates a direct correlation between knowledge management and process innovation. Therefore, the seventh hypothesis of research is confirmed.

Eighth Hypothesis:

Knowledge Management Has A Significant Relationship with Administrative Innovation.

H⁰: Knowledge management does not have a significant relationship with administrative innovation.

H¹: Knowledge management has a significant relationship with administrative innovation.

Table 18: The Results of Normality Test for the Eighth Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.691

Since the significance level is 0.000, and it is less than the error value (0.05), thus we conclude the hypothesis one; that is, there is a significant relationship between these two variables. The correlation coefficient is 0.691 which indicates a direct correlation between knowledge management and administrative innovation. Therefore, the eighth hypothesis of research is confirmed.

Ninth Hypothesis:

Knowledge Management Has A Significant Relationship with Service Innovation.

H⁰: Knowledge management does not have a significant relationship with service innovation.

H¹: Knowledge management has a significant relationship with service innovation.

Table 19: The Results of Normality Test for the Ninth Hypothesis

Significance Level	Error Level	Conclusion	Correlation Coefficient Value
0.000	0.05	confirmed	0.608

Since the significance level is 0.000, and it is less than the error value (0.05), thus we conclude the hypothesis one; that is, there is a significant relationship between these two variables. The correlation coefficient is 0.608 which indicates a direct correlation between knowledge management and service innovation. Therefore, the ninth hypothesis of research is confirmed.

Discussion and Conclusion

The result of correlation test showed that there is a significant relationship between the strategic measures of human resource management and knowledge management capacity in the organization and the direction of this relationship is direct, that is, to the extent that the strategic measures of human resource management are implemented, the organization experiences higher knowledge management capacity. As Zahir et al. (2016) show in the article, it should be noticed that knowledge is at the monopoly of human capital, and companies cannot transfer it easily among the company’s individuals. Also, the results of first hypothesis are consistent with the results of Hall (2009), Larsen and Foss (2009) researches on the impact ratio of strategic human resource management on knowledge management.

Also, the result of correlation test showed that there is a significant relationship between the measures of strategic human resource management and organizational innovation and the direction of this relationship is direct. Therefore, in order to create innovation, companies can rely on human capital to create expertise in offering new services. But the expertise is very complex and is basically the result of conscious activities of individuals in duties related to an area. In carrying out these conscious activities, those people are required who have tendency to perform duties and strive to improve performance. Companies can identify the measures of strategic human resources, and create the necessary motivation and enthusiasm to create organizational expertise for achieving business goals such as innovation in employees by applying them. According to the results of the articles of Zink and Marcus (2009), Lepak (2010), Koberg et al. (2004), the strategic measures of human resources have a significant relationship with the components of organizational innovation such as process, organization administration, marketing, and are in line with the presented results.

The result of correlation test showed that there is a significant relationship between knowledge management and organizational innovation and the direction of this relationship is direct. This means that new and innovative innovations rely heavily on the knowledge, expertise and commitment of employees, so that knowledge, expertise and commitment of employees are considered as key data in the process of creativity. On the other hand, it is the knowledge management that is performed to create or add value through relying on skill and expertise that are embedded in the minds of individuals. The obtained results are consistent with

the results of Zahir et al. (2016) article in respect of the relationship of knowledge management with organizational innovation.

The result of correlation test showed that there is a significant relationship between strategic human resource management and process innovation, and the direction of this relationship is direct. Therefore, employees who know human resources management measures fair have more motivation and enthusiasm to propose new and innovative ideas continuously in the process of offering new services in the organization.

The result of correlation test showed that there is a significant relationship between strategic human resource management and administrative innovation and the direction of this relationship is direct. As the organization experiences a higher knowledge management capacity and acts more appropriately in the processes of acquisition, sharing and application of knowledge, through which the employees will have access to newer and various knowledge and expertise to create new ideas.

The result of correlation test showed that there is a significant relationship between strategic human resource management and service innovation and the direction of this relationship is direct. This means that an organization that has a proper recognition of the measures of strategic human resource management will show more willingness towards innovative measures that these findings are consistent with the results of Lin and Chen (2010) researches.

The result of correlation test showed that there is a significant relationship between knowledge management and process innovation, and the direction of this relationship is direct. Therefore, the more appropriate knowledge management capacity the organizations have, the more tendency they have towards innovative processes.

The result of correlation test showed that there is a significant relationship between knowledge management and administrative innovation and the direction of this relationship is linear. Therefore, the more appropriate knowledge management capacity the organizations have, the more tendency they have towards administration innovative processes. By having more appropriate measures of strategic human resources, an organization will be more successful in acquiring innovative methods of offering services. Chang and Hang (2004) in their studies showed that the application of knowledge management system has a significant relationship with organizational innovation and corresponds with the results of research in this respect.

The result of correlation test showed that there is a significant relationship between knowledge management and service innovation and the direction of this relationship is direct. Therefore, employees who have a more appropriate organizational learning culture, have more willingness towards organizational knowledge dissemination; therefore, this finding is consistent with the results of Darroch's (2005) research.

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