

Organizational learning, leadership style and knowledge management in enterprises: Basis for innovation performance improvement

Yang, Yufeng ✉

Graduate School, Lyceum of the Philippines University - Batangas, Philippines



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Abstract

Based on the research on the basic theories of leadership style organizational learning and knowledge management, this paper uses quantitative and qualitative research methods to conduct empirical analysis by issuing questionnaires to 239 Chinese employees, and further explores the impact of knowledge management on enterprise innovation performance, as well as the intermediary role played by organizational learning and leadership style. This study also confirms that organizational learning has a significant role in promoting enterprise knowledge management. Transformational leadership in leadership style has a significant role in promoting enterprise innovation performance. The knowledge acquisition, knowledge transformation and knowledge application ability of knowledge management ability have a significant role in promoting enterprise innovation performance. On the whole, this study has achieved the expected research purpose. It not only provides empirical support for some viewpoints of previous studies, but also puts forward some new viewpoints, which realizes the deepening and expansion of the existing theories.

Keywords: empirical study, organizational learning, leadership style, knowledge management, innovation performance

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1. Introduction

With the rapid development of information technology, the process of economic globalization is accelerating. Coupled with the impact of the epidemic in recent years, the business environment of enterprises has undergone tremendous changes and faces severe challenges. If enterprises want to maintain a long-term and stable competitive advantage, they must improve their innovation ability and build their own core competitiveness. The learning ability and learning atmosphere of employees, the management style of enterprise leaders, the knowledge acquisition, integration and creation ability of enterprises are the key factors for enterprises to carry out innovation activities smoothly and improve their innovation performance.

Leadership style refers to a kind of behavior pattern of enterprise management, which is formed in the process of long-term work, practice and personal growth, and has a strong personalized style of habitual leadership (Kelley & Bisel, 2014). The different leadership styles of enterprise management will directly affect whether the management objectives can achieve the expectations. Organizational learning refers to the process in which organizations can reasonably carry out learning, acquire, absorb and externalize knowledge, so as to help enterprises gain competitive advantage (Liao, et al., 2017). Knowledge management refers to the process in which enterprises acquire, share and transform powerful information and knowledge resources for their own development and establish a complete knowledge base system.

Organizational learning is an inevitable path for organizations to acquire and update knowledge and promote innovation. When the original knowledge structure no longer meets the needs of environmental changes and development, the organization will continuously adjust and structure the internal knowledge system through continuous learning. He takes the individual learning of employees as the starting point, and realizes the integration of the internal knowledge system of the enterprise through the sharing and connection within the organization. Organizational learning can unify different stakeholders, so that they can work together to create solutions and form a unified internal driving force for the development of the organization.

Leaders are considered to be one of the key factors affecting organizational innovation performance. A good management style can establish a good hierarchical relationship with employees, enhance employees' sense of participation and belonging to the organization so as to enhance employees' loyalty and engagement, and unify personal development with organizational development. At present, the more concerned leadership styles in the field of management are transformational leadership and transactional leadership, because they are more suitable for the development of enterprises under the current situation. Transformational leadership usually has a strong personality charm, strengthening the emotional connection with employees so that employees have a strong sense of self-efficacy. Transactional leadership usually establishes a mutually beneficial relationship between employees and enterprises and motivates employees to achieve task goals, thereby obtaining incentives. Different leadership styles will have different effects on corporate culture, employee care, employee engagement, employee self-efficacy, and incentive mechanisms, thus affecting the organization's willingness to innovate, the company's ability to innovate, and the company's development and operation.

A good organizational learning atmosphere can provide external support for the growth of employees. Those excellent enterprises will encourage employees to learn and improve themselves in various ways. For example, some enterprises will regularly carry out learning and experience exchange meetings, so that excellent work experience and knowledge wealth can flow and share within the organization. Secondly, some enterprises will regularly carry out educational training and research activities for employees to help them better master professional skills and apply them to work. The discovery, sharing, and application of new knowledge can

promote the rapid growth of employees, improve the work efficiency of employees and the innovation vitality of enterprises, and promote the continuous optimization and development of the innovation ability and performance level of enterprises.

Knowledge management is a new discipline in the field of management. It was first proposed in 1986 and developed rapidly in the following decades. Nonaka emphasized the importance of knowledge management in his article " Knowledge Creation Company. " He believes that knowledge management can have a sustained impact on the innovation and growth of enterprises. With the continuous development and renewal of Internet technology, knowledge management has been more applied to the management of enterprises. It helps enterprises to realize the acquisition, transformation and creation of knowledge, continuously strengthen the innovation ability of enterprises, and create a competitive advantage for the sustainable development of enterprises.

Based on previous studies, knowledge management can be divided into three main stages: knowledge acquisition, transformation and application. Enterprises absorb and internalize external knowledge and use it for themselves by identifying and evaluating it. Of course, enterprises can also integrate their own knowledge and experience through internal mining and communication. After acquiring new knowledge, enterprises will screen and integrate the acquired knowledge and build it as their core knowledge system. In the management and operation of enterprises, managers can match integrated knowledge with practical problems, apply knowledge resources to specific practices, and guide enterprises to carry out innovative activities.

Although for a long time, management scholars have made considerable research on the factors affecting corporate performance. However, most studies pay more attention to the influence mechanism of a single factor on innovation performance, while ignoring the synergistic effect of multiple related factors on innovation performance. In particular, all countries have put innovation work at the forefront of economic development. In the post-epidemic era of environmental changes, it is necessary to re-examine the internal mechanism that affects innovation performance. This paper studies the three mediating variables of organizational learning, leadership style and knowledge management, and reconstructs the theoretical framework.

This paper fully explores the internal relationship between organizational learning, leadership style, knowledge management and innovation performance, and adds research on its dynamic capabilities under the premise of paying attention to the basic resources of the enterprise. By studying the moderating effect of various mediating variables on enterprise performance, the integrity and effectiveness of the current theoretical framework are improved, which provides a reliable basis and action guide for enterprises to improve innovation performance.

Objectives of the Study - This study aims to analyze the organizational learning, leadership style, and knowledge management in enterprises, which will be the basis for improving innovation performance. Specifically, to describe organizational learning in terms of learning commitment, shared vision and open mind; determine the leadership style by combing the three leadership style models of transformational leadership, transactional leadership and inclusive leadership. Evaluate management ability by knowledge acquisition ability, knowledge integration and transformation ability and knowledge creation ability. Determine the significant relationship between organizational learning, leadership style and knowledge management. Propose a framework that can be used to enhance enterprises' innovation performance.

2. Methods

Research Design - This study adopts a descriptive research design to provide a sufficient and accurate interpretation of the results. Rahi (2017) believed that descriptive research refers to the systematic and accurate measurement and narration of the characteristics of a population or social phenomenon, and then forms the research types of propositions and hypotheses. Its main goal is to answer the question of ' what ' or ' how '. In the descriptive study, the researchers carefully and scientifically observe the social phenomena studied, and then

describe them in detail from the aspects of characteristics, status, scale and degree. A descriptive research plan can use a series of research methods to study one or more variables (McCombes, 2019). The researchers tried to collect information from the respondents by providing and distributing questionnaires. This research method helps to effectively collect the data of the respondents. This study describes the characteristics and behaviors of the respondents by processing data, so as to reveal the current situation of their organizational learning, leadership style, knowledge management and enterprise innovation performance.

This study uses theoretical analysis and descriptive research to explore the relationship between leadership style, organizational learning, knowledge management ability and innovation performance. By reading a large number of domestic and foreign literature, the author further puts forward relevant hypotheses and conducts test analysis on the basis of existing research. In terms of sample selection, we used a random sampling method to randomly select several samples from the target group as the research object. In terms of data collection, we used a questionnaire survey to obtain the information needed for the study by issuing questionnaires and collecting data. The measurement indicators of these factors are mainly based on the research results and experience of previous scholars, combined with the characteristics of the objects we studied and the particularity of the research process. In terms of questionnaire design, according to the research purpose and the characteristics of the research object, we designed multiple questions to measure the indicators of each factor, so that we can obtain more comprehensive and accurate information. In this paper, we will use descriptive statistics and inferential statistics to analyze the data, and use statistical analysis software to assist the data processing and analysis process.

Participants of the Study - A total of 330 questionnaires distributed through the Internet and successfully recovered 329. According to the results of the questionnaire, most of the respondents are from Chengdu, China, and a few are from Hebei, Henan, Chongqing and other places in China. The respondents' industries include real estate industry, information technology industry, tourism industry, education industry, medical industry and other private enterprises and state-owned enterprises. There are also some differences in the ranking of respondents. The sample source of this survey is rich and involves many fields, which can ensure that the sample has good universality and representativeness.

Data Gathering Instrument - This study builds on Churehill's (1979) research on questionnaire design, improving the method and process to create a reliable and effective measurement scale. The questionnaire uses a four-level Likert scale to measure three variables, providing accurate data for the study. The questionnaire consists of two parts: basic respondent information and scales related to the company's situation, including leadership style, organizational learning, and knowledge management. The organizational learning scale is based on Baker and Sinkula's (1999) measurement scale, while the leadership style scale is developed from transformational, transactional, and inclusive leadership styles, drawing from the MLQ scale by Avolio et al. (1999) and the TLQ scale by Chaoping and Kan (2008). The knowledge management scale refers to the scales set by Gold et al., (2001). A pre-survey of 20 people was conducted to verify the reliability and validity of the sample. The reliability values of the variables were high, indicating strong internal consistency.

Data Gathering Procedure - This paper collects data in the form of a questionnaire survey, and takes the company's establishment time, company size, etc. as control variables and incorporates them into the questionnaire. The scales selected in this study are relatively mature scales that have been used by predecessors, and are distributed on the basis of China's 'Questionnaire Star' questionnaire survey platform. Before collecting data, in order to ensure that the questionnaire studied can obtain effective information from enterprises, after the preliminary design of the questionnaire, we distributed the questionnaire to some enterprises for investigation. In the survey, the main purpose is to check whether the respondents' understanding of the options has deviated, and to correct and improve the content of the questionnaire in a timely manner according to their answers and problems encountered. Before the large-scale distribution of the questionnaire, the author conducted a pre-survey of about 20 people. Through the evaluation of the data, it can be confirmed that the reliability and validity of the measurement tools used in this paper are very good, which can provide a reliable basis for empirical research.

The questionnaire clearly shows that the survey is only used for academic research and the information collected is kept confidential. Therefore, the final questionnaires obtained are recognized by all parties concerned, and the collected data are true and reliable.

Ethical Considerations - The content and logical rationality of this study and the questionnaire have been reviewed and approved by researchers and instructors before the start of the study. When issuing questionnaires, researchers in this study should respect the individual wishes of respondents to conduct surveys and fill out questionnaires, and should not force or promote the completion of questionnaires in other ways. Ethical tips will be given on the first page of the questionnaire before the interviewee conducts the questionnaire. In order to ensure the quality and integrity of the research data, the respondents should be clearly informed that the questionnaire is an anonymous questionnaire, and the respondents should follow their own wishes to fill out the questionnaire. All the contents and data of the questionnaire are confidential and anonymous, which will not lead to the disclosure of the personal information of the respondents. Researchers will protect the privacy of the respondents' personal information and related content to prevent illegal infringement and threats. The safety and security of the respondents is the top priority.

Data Analysis - Weighted mean and rank were used to describe organizational learning in terms of learning commitment, shared vision and open mind; to determine the leadership style by combining the three leadership style models of transformational leadership, transactional leadership and inclusive leadership; and to evaluate management ability by knowledge acquisition ability, knowledge integration and transformation ability and knowledge creation ability. The result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Therefore, Spearman rho was used as part of the non-parametric tests to determine the significant relationship. All analyses were performed using SPSS version 28.

3. Results and discussion

Table 1

Organizational Learning

Key Result Areas	Weighted Mean	Verbal Interpretation	Rank
Learning Commitment	2.43	Disagree	2
Shared Vision	2.41	Disagree	3
Open Mind	2.52	Agree	1
Composite Mean	2.45	Disagree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 1 shows the organizational learning with the composite mean of these three indicators is 2.45, and the respondents said that they do not agree with it. Among these three indicators, respondents have a high degree of recognition for open perspectives, with a composite mean of 2.52. Most respondents disagreed with the dimension of the company's learning commitment, whose composite mean was 2.43, ranking second. Shared Vision has a composite mean of 2.41, ranking last, with respondents disagreeing with this indicator.

The majority of employees believe that their companies are open to their ideas and suggestions and apply them to their operations. Employees feel that they are direct participants in the daily work of the company, they have a clearer understanding of the work process or product production, and their rationalization suggestions can effectively reduce the company's operating costs and eliminate work barriers, thereby improving the company's production efficiency. Enterprise managers should listen to the opinions and suggestions of employees with a good attitude and establish reasonable feedback channels for employees so that employees think that they are recognized and valued by the company, so as to enhance the sense of participation and belonging of employees. These dedicated members provide time, communication, resources, experience, and perspectives to work together to identify and solve problems (Maeda & Socha-Dietrich, 2021).

Respondents believe that organizational learning is not an important factor affecting the development of

enterprises, and they fail to recognize the importance of organizational learning for enterprises. At the same time, corporate managers fail to put organizational learning in a key position, resulting in a weak internal learning atmosphere. A good organizational learning atmosphere and continuous learning of employees can promote the improvement of enterprise innovation performance. Therefore, for most enterprises, a good corporate atmosphere should be created to ensure the smooth development of organizational learning. Enterprises should regularly organize staff training, experience exchange meetings and visits, and carry out learning activities for employees. Zheng et al., (2022) showed in his research that organizational learning can help enterprises dig deep into existing knowledge and use new knowledge to enter new knowledge categories. They will encourage employees to continue to learn and innovate, so that employees can maintain long-term motivation to learn, and are willing to share and exchange knowledge and information within the organization, and promote the continuous transfer of intellectual resources within the organization.

The majority of employees believe that the company's current vision and goals are opaque and difficult to determine. The company does not believe that the vision of the company is closely linked to the individual employees, so that most employees will not work hard for a shared vision. Enterprises should use reasonable ways to let employees know the vision and goals of the enterprise. Only when the company's vision is transparent and open can employees clearly understand the company's development goals and match their personal goals to the company's goals and work tirelessly for the organization's goals. This is consistent with the empirical findings that inter-organizational learning can be interpreted as a process in which members work together to solve problems and achieve common goals. If the enterprise does not have a clear goal and vision, it is difficult for organizational learning to proceed smoothly. Therefore, enterprises need to build a common vision to provide the basis for the later strategic plan, and gather all employees as a whole, for the collective common goal to work hard.

Table 2

Leadership Style

Key Result Areas	Weighted Mean	Verbal Interpretation	Rank
Transformational Leadership	2.50	Agree	1
Transactional Leadership	2.43	Disagree	2.5
Inclusive Leadership	2.43	Disagree	2.5
Composite Mean	2.45	Disagree	

Legend: 3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 2 shows the respondents' assessment level of the three leadership styles, whose composite mean score is 2.45, which is not recognized by the respondents. The composite mean of Transformational Leadership was 2.50, ranking first, and was also recognized by respondents. This shows that the majority of employees approve of their leaders' performance in this area. Most employees recognize transformational leadership and expect their leaders to manage the company in this way.

They believe that transformational leaders make employees aware of the importance of their responsibilities and tasks through leadership charm, leadership charisma, intellectual stimulation and personalized care, and stimulate their higher needs, so that they can maximize their own potential to achieve the highest level of performance. This shows that the roles of the transformational leader and the subordinate are interrelated and try to create a process between the leader and the subordinate that can improve the motivation and character level of both parties. Leaders with transformational leadership optimize the interaction of members in the organization through their own behavior and concern for the needs of subordinates. At the same time, through the co-creation and promotion of the organizational vision, an atmosphere of change is created in the organization, and the adaptive change of the organization is promoted in the process of efficiently completing the organizational goals. The research of Xenikou (2017) shows that transformational leadership can give employees personalized care and encourage employees to put forward ideas and suggestions that are conducive to the development of the organization. Transformational leadership often encourages and supports employee innovation. He will encourage organization members to adopt new methods or strategies to deal with new problems inside and

outside the organization, thereby building good enterprise improvisation ability and helping the organization improve innovation performance.

The composite mean of Transactional Leadership and Inclusive Leadership is the same, at 2.43. Respondents do not agree with their managers' descriptions of transactional and inclusive leadership styles. Transactional leadership should clearly define the division of roles and assignment of tasks. Transactional leadership can lead or mobilize subordinates to achieve established goals. Transactional leaders should clearly express expectations, care and support to employees, involve employees in management and often encourage and appreciate subordinates, and timely express recognition of employees' work and provide emotional support. At the same time, grasp the degree of problems when doing things, and believe that a good grasp of the degree is the beginning of the success of leaders. Before requiring subordinates to do so, they will strictly require themselves to advocate the principle of peace to solve problems, resolve contradictions and avoid conflicts and struggles, and advocate the establishment of harmonious interpersonal relations. However, it can be seen from the survey data that most leaders do not continuously show concern for the needs and expectations of employees, and they do not give timely recognition or return when employees perform tasks well. Most of the time, they show a relatively indifferent attitude and a disinterested attitude, which makes most respondents find it difficult to accept. Inclusive leadership is more difficult to use because of its obvious double-sided impact. Zhong et al., (2022) found through research that inclusive leadership is helpful to improve employees' sense of self-efficacy to a certain extent. It enables employees to work in a positive and optimistic mental state, and enables employees to maintain resilience in the face of difficulties. Inclusive leaders tend to respect the uniqueness of their employees and foster an open and productive work environment for them. The shift from focusing on performance to focusing on the development of employees, meeting their individual needs and enhancing their professional identity has, to some extent, improved their ability to innovate, and the quality of employees' work has also risen. Most respondents said that their leaders could not give them enough respect like inclusive leaders. In particular, they would not often talk and talk with employees, nor would they take the initiative to listen to their voices. This makes it difficult for most employees to feel that they have been given enough psychological authorization and trust, which leads to the internal motivation of employees. It has a negative effect on employees' innovation behavior.

Table 3

Knowledge Management Ability

Key Result Areas	Weighted Mean	Verbal Interpretation	Rank
Knowledge Acquisition Ability	2.42	Disagree	2
Knowledge Integration and Transformation Ability	2.41	Disagree	3
Knowledge Creation Ability	2.47	Disagree	1
Composite Mean	2.43	Disagree	

Legend: 3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 3 shows the overall description of the three indicators of the variable of knowledge management, whose composite mean is 2.43. Respondents do not agree with their company's performance on these three indicators. The composite mean of "Knowledge Creation Ability" is 2.47, which is not recognized by the respondents. Most respondents believe their companies lack a good Ability in "Knowledge Acquisition Ability", with a composite mean of 2.42. The composite mean of "Knowledge Integration and Transformation Ability" was 2.41, which respondents did not agree with.

The respondents believe that their enterprises do not have good knowledge creation ability, and it is difficult for enterprises to process and re-create acquired knowledge, and this sufficient intellectual capital cannot play its due value after being acquired by enterprises. The main reason may be that these enterprises have not established a systematic knowledge management system, and their knowledge busy purpose is to follow the trend and acquire a lot of knowledge, but they do not know how to develop and continue the knowledge level information reasonably. Only through the effective management and utilization of internal and external knowledge and experience can the innovation ability and competitiveness of enterprises be improved, so as to achieve

sustainable development.

Most employees believe that their enterprises do not have or establish good information acquisition channels and knowledge acquisition capabilities, and they seldom achieve internal knowledge and information circulation through internal sharing and communication. When enterprises need to acquire corresponding knowledge and experience resources, they usually spend huge costs to gain confidence. Respondents believe that enterprises should enhance their knowledge acquisition ability and knowledge application ability, build the idea that knowledge itself is a productive force within enterprises, establish a good idea of knowledge management within enterprises, form a joint force from top to bottom, and carry out knowledge acquisition through multiple channels and dimensions, so as to minimize the cost of knowledge acquisition. Promote the good improvement of enterprise innovation performance. Enterprises with good knowledge acquisition ability can gather sufficient knowledge and information resources in an effective time and integrate, refine and extend the information, thus providing strong support for later innovation activities.

The respondents believe that enterprises are not good at summarizing the experience of the previous work and will not update the knowledge base in time after knowledge acquisition. They rarely integrate and optimize the knowledge they acquire, nor do they share and pass it on to their employees, so it is difficult for them to leverage external knowledge and create value. Choi et al., (2015) found through empirical research on some colleges and universities that in order to improve the teaching ability of internal teachers, some colleges and universities often invite famous scholars or teachers at home and abroad to carry out academic teaching and research exchanges and discussions, but they do not summarize this excellent knowledge and experience. Most of the excellent teaching ideas stay at the level of knowledge acquisition, and these colleges and universities fail to make this high-quality hidden knowledge explicit, which makes it difficult for this information and experience to continue in the later teaching activities.

Table 4

Relationship Between Organizational Learning and Leadership Style

Variables	rho	p-value	Interpretation
Learning Commitment			
Transformational Leadership	0.437**	0.000	Highly Significant
Transactional Leadership	0.484**	0.000	Highly Significant
Inclusive Leadership	0.445**	0.000	Highly Significant
Shared Vision			
Transformational Leadership	0.507**	0.000	Highly Significant
Transactional Leadership	0.454**	0.000	Highly Significant
Inclusive Leadership	0.525**	0.000	Highly Significant
Open Mind			
Transformational Leadership	0.531**	0.000	Highly Significant
Transactional Leadership	0.541**	0.000	Highly Significant
Inclusive Leadership	0.488**	0.000	Highly Significant

** . Correlation is significant at the 0.01 level

As seen in the table, the computed rho-values ranging from 0.437 to 0.541 indicate a moderate direct relationship among the sub variables of organizational learning and leadership style. There was a statistically significant relationship between organizational learning and leadership style because the obtained p-values were less than 0.01. It should be noted that while the correlation values were at a moderate level, the strength of the relationship between the variables proved to be highly significant. This means that an important relationship has been found and means that the more appropriate the leadership style is to the business situation, the higher the respondents' recognition of their organizational learning. Several studies have shown a correlation between supportive leadership styles and organizational learning.

For example, Frese and Keith (2015) sets organizational learning as one of the important factors of corporate culture. He points out that when enterprises form a good learning atmosphere and habits from top to bottom, leaders can be forced to take the initiative to continue learning, so as to improve their management ability and

work ability, which has a great impact on the formation of leadership style. They believe that the continuous improvement of organizational members' learning ability and willingness to learn will lead to the continuous improvement of employees' demand level, which will lead them to pay more attention to the relationship between work returns and goal achievement, which requires enterprise leaders to gradually move closer to the transactional leadership style to realize the psychological contract between leaders and subordinates. A finding in Tian et al., (2018) study confirms the impact of good organizational learning on leadership style. Through his research, he found that companies with poor organizational learning ability or weak culture are susceptible to various adverse factors, which lead to serious management problems in the management process. When the problem is not solved, enterprises often try different management methods, which has an impact on the stability of corporate culture and operation. Crews (2019) pointed out that organizational learning changes organizational policies by influencing the values held by decision makers. Organizational learning contributes to the interpersonal and institutional relationships of the organization, thus changing the choice of corporate governance structure.

There is a clear correlation between organizational learning and leadership style. Through the empirical analysis of 10 listed companies in China, Mei (2022) found that transformational leadership can promote organizational learning of the whole enterprise, while leadership that attaches importance to intellectually driven leadership will have a significant inhibitory effect. At the same time, Yosinta (2016) concludes that strong cultural and organizational learning capabilities, supported by participatory leadership and appropriate management, are critical to achieving high key performance indicator scores.

Table 5

Relationship Between Organizational Learning and Knowledge Management Ability

Variables	rho	p-value	Interpretation
Learning Commitment			
Knowledge Acquisition Ability	0.475**	0.000	Highly Significant
Knowledge Integration and Transformation Ability	0.464**	0.000	Highly Significant
Knowledge Creation Ability	0.413**	0.000	Highly Significant
Shared Vision			
Knowledge Acquisition Ability	0.519**	0.000	Highly Significant
Knowledge Integration and Transformation Ability	0.466**	0.000	Highly Significant
Knowledge Creation Ability	0.469**	0.000	Highly Significant
Open Mind			
Knowledge Acquisition Ability	0.467**	0.000	Highly Significant
Knowledge Integration and Transformation Ability	0.467**	0.000	Highly Significant
Knowledge Creation Ability	0.470**	0.000	Highly Significant

** . Correlation is significant at the 0.01 level

Table 5 lists the relationship between organizational learning and knowledge management. As seen in the table, the computed rho-values ranging from 0.413 to 0.519 indicate a moderate direct relationship among the sub variables of organizational learning and management ability. There was a statistically significant relationship between organizational learning and management ability because the obtained p-values were less than 0.01.

Enterprise learning and enterprise knowledge management are closely related, and they complement each other. Knowledge management within an enterprise comes from the enterprise within the enterprise, and the enterprise learning within the enterprise is the prerequisite for the enterprise culture construction. King (2009) believe that knowledge management and organizational learning are two complementary processes. In the process of organizational learning, only through knowledge management can the learned knowledge be effectively transformed into corporate performance, and the whole process of knowledge management is inseparable from organizational learning.

Chen et al. (2022) put forward that organizational learning in enterprises refers to the acquisition and development of knowledge within enterprises and the mutual transformation between enterprises within enterprises. Learning within an enterprise is an important guarantee for knowledge management. Through the

training of internal personnel, they can continue to acquire new knowledge and technology so as to inject new connotations into the knowledge system and knowledge system of the enterprise. Through the training of the internal personnel, the creative potential of the internal personnel can be effectively mobilized and the knowledge innovation and renewal of the enterprise can be promoted.

Gubbins (2018) believe that organizational learning has a positive promoting effect on knowledge management in enterprises. Based on this, we propose a new perspective, that is, organizational learning within enterprises can effectively improve the level of knowledge management. It provides an operable platform and means for the learning activities of enterprises. Knowledge is available and shared by all employees at any time, anywhere, accelerating the learning process. At the same time, it can also preserve the knowledge and experience of the enterprise in the past, and provide reference for future research. Organizational learning and knowledge management are important means for enterprises to develop continuously and improve their competitiveness. On this basis, a theoretical model of enterprise innovation based on the network environment is proposed, and the empirical study of enterprises is carried out. If enterprises want to obtain the competitiveness of sustainable development in the rapidly changing market, they must organically integrate the learning and knowledge management of enterprises.

Table 6

Relationship Between Leadership Style and Knowledge Management Ability

Variables	rho	p-value	Interpretation
Transformational Leadership			
Knowledge Acquisition Ability	0.469**	0.000	Highly Significant
Knowledge Integration and Transformation Ability	0.463**	0.000	Highly Significant
Knowledge Creation Ability	0.411**	0.000	Highly Significant
Transactional Leadership			
Knowledge Acquisition Ability	0.547**	0.000	Highly Significant
Knowledge Integration and Transformation Ability	0.478**	0.000	Highly Significant
Knowledge Creation Ability	0.447**	0.000	Highly Significant
Inclusive Leadership			
Knowledge Acquisition Ability	0.518**	0.000	Highly Significant
Knowledge Integration and Transformation Ability	0.485**	0.000	Highly Significant
Knowledge Creation Ability	0.430**	0.000	Highly Significant

** . Correlation is significant at the 0.01 level

As seen in Table 6, shows the link between leadership style and knowledge management. As seen in the table, the computed rho-values ranging from 0.411 to 0.547 indicate a moderate direct relationship among the sub variables of leadership style and management ability. There was a statistically significant relationship between leadership style and management ability because the obtained p-values were less than 0.01.

In the enterprise, the leadership style plays an important role in the business performance of the enterprise by effectively controlling the knowledge management activities inside the enterprise. Only when the management mode of the enterprise effectively builds the corporate culture of the enterprise can the enterprise obtain the trust and motivation of the enterprise. The results of the study show that through efficient knowledge management or knowledge sharing procedures, an efficient workplace can be created and employees can be better engaged in their work. However, this performance largely depends on the attitude of the manager and the degree of support of the manager for this kind of work, or the reform and innovation of the subordinates again and again. It is found that transformational leadership has a positive impact on knowledge management.

According to Shao et al. (2012), the leadership style of senior executives plays a significant role in organizational learning and knowledge management of enterprises. It has a significant impact on enterprise innovation, and the transformational leadership style is more conducive to enterprise knowledge management and innovation than traditional transactional leadership. It plays a positive role in promoting the creativity of enterprises and plays an important role in the management innovation of enterprises.

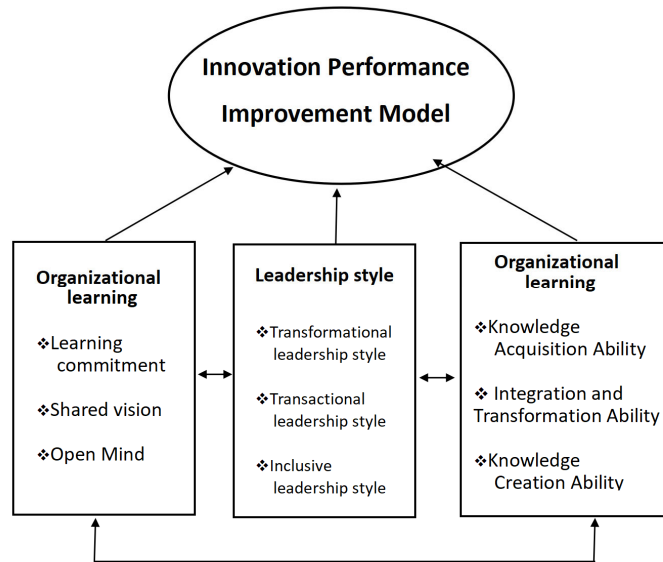


Figure 1. Proposed Framework for Innovation Performance

Improvement of Enterprise

The innovation performance improvement model is established to help leaders choose the appropriate leadership style, carry out organizational learning and improve knowledge management ability. In addition, it will help enterprises improve innovation performance by an effective model. There is a close relationship between leadership style and innovation performance. Good leadership styles encourage employees to come up with new ideas, create a positive work atmosphere, and give them enough freedom to act on those ideas. Such a leadership style can stimulate the potential of employees and promote the development of innovation. However, a leadership style that overemphasizes control and authority may suppress employees' enthusiasm for innovation and limit the development of innovation. Therefore, the choice of leadership style is very important in promoting enterprise innovation performance.

Organizational learning can enhance the innovation performance of enterprises by enhancing the knowledge and ability of organization members, and is an important source of corporate competitive advantage. Organizational learning can enable enterprises to introduce new knowledge, thereby improving their knowledge and skills, and thus enhancing their innovation performance. Organizational learning will not only affect creativity at the individual level, but also at the organizational level (Ellinger et al., 2011). Organizational learning can reduce business risks, understand the internal and external environment of enterprises, and better promote enterprise innovation.

Knowledge creation is an important source for enterprises to maintain long-term competitive advantage. The ability of enterprises with strong competitiveness to promote knowledge activities and knowledge cooperation is obviously higher than that of enterprises with weak competitiveness. In order to achieve organizational goals, knowledge management can help enterprises develop new products and integrate existing knowledge into the existing knowledge system. Thus, it can help enterprises improve efficiency and reduce costs, and obtain more profits.

As can be seen from the figure below, a firm's leadership style, organizational learning and good knowledge

management capabilities are necessary for good innovation performance. Leadership style is related to organizational learning and knowledge management ability. Leadership style will create a good learning atmosphere for enterprises and help enterprises to better carry out organizational learning. Appropriate leadership style and organizational learning behavior will promote the improvement of knowledge management ability of enterprises, thus helping enterprises to enhance their own innovation ability and core competence, so as to improve their innovation performance.

4. Conclusions and recommendations

While respondents concurred on the importance of open-mindedness, they diverged in their assessments of the organization's commitment to learning and the clarity of its shared vision. Respondents in this study identified transformational leadership as the predominant leadership style within their organizations. Respondents' responses indicate that their companies lack the ability to effectively acquire, integrate, and transform knowledge. There is a highly significant positive correlation between leadership style and organizational learning, leadership style and knowledge management, and organizational learning and knowledge management. An innovation performance improvement framework has been developed.

Based on the empirical research of this paper, enterprises may increase investment in training and create a good learning atmosphere. At the same time, share the enterprise vision with employees and promote employees to participate in various decisions. Enterprises may pay attention to the important role of leaders in the process of organizational innovation, and choose the leadership style that matches the current situation of the enterprise. This study suggests that enterprises may pay attention to the important role of knowledge management in innovation performance, improve the ability of knowledge acquisition, integration and creation, accumulate intellectual capital, and promote the innovation ability of enterprises. Enterprises can use the proposed innovation performance improvement framework to enhance their knowledge management capabilities through reasonable leadership style and strengthening organizational learning. Finally, researchers can explore and analyze the impact of employee perspective or other factors to improve innovation performance

5. References

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