

Top Management Supports and Informationization Performance: A Moderated Mediation Effect

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Abstract

Senior managers can influence the cognition and behavior of other members of the enterprise by formulating informatization strategies and initiating informatization reforms, thereby affecting the success or failure of enterprise informatization. This paper establishes a model of the influence mechanism of the level of executive support on the performance of enterprise informatization. Taking enterprises in Guangdong Province, China as the survey object, through a three-stage questionnaire survey, 419 valid questionnaires were obtained. This paper shows that: executive support has a positive impact on team entrepreneurial passion. Executive support is the antecedent variable of enterprise informatization reform, and informatization reform plays an intermediary role between the executive support variables and informatization performance variables. Organizational communication plays a moderating role between informatization reform and informatization performance. This will improve the guiding theories in the field of organizational behavior and provide new ideas for the construction of the mechanism model of informatization performance.

Keywords: top management supports, information change, organizational communication, informationization performance

1. Introduction

Information technology has transformed from a technological means to improve corporate efficiency to a strategic resource to promote corporate growth. Theoretical research in related fields and the practical experience of enterprises have shown that the level of executive support determines the success or failure of enterprise informatization. With the continuous deepening of enterprise informatization, enterprises no longer regard information systems as pure technological changes. They expect to improve the management process of enterprises, increase the speed and quality of decision-making, and improve the production process through the introduction of informatization projects. Scholars' evaluation of the effects of informatization has gradually shifted from a technical perspective to the evaluation of operational management indicators. Based on trying to define the performance of informatization, scholars have designed an evaluation system to measure the effectiveness of enterprise informatization. The research methods of informatization performance have also shifted from pure result evaluation to time evaluation and process evaluation.

Information construction is a top-down process of change, and high-level support is the main driving force for change. Senior managers share information vision with corporate members, lead information transformation, supervise the implementation of various policies, provide necessary resource guarantee for informatization construction, build a corporate culture suitable for the company, and enable corporate members to receive information more quickly. It can be said that technology promotes the progress of enterprise informatization.

2. Literature Review

2.1 Top Management Supports

The specific responsibilities of senior executives are: formulating the company's strategy and long-term goals; determining that each department should complete tasks within a limited time and be responsible for implementing supervision; carrying out the allocation and coordination of resources within the enterprise; controlling the use of corporate budgets and risk avoidance, and the work effect of the department is evaluated. The quality level and management ability of senior managers not only affect the survival and development of the

entire enterprise but also determine the success or failure of the implementation of informatization projects.

Research on the relationship between executive support and the effects of informatization began in the 1960s (Garrity, 1963). Most relevant studies recognize that executive support is a key factor in determining the success or failure of informatization, but the connotation and structure of executive support have not yet been formed. In a unified way, scholars often give different ideas according to the purpose of the research. Jarvenpaa and Ives (1991) adopted an empirical method to study the impact of executive support on informatization earlier. They proposed that executive support includes executive participation (Executives. partition) and executive involvement (Executives.entivo). Among them, the involvement of senior management will significantly affect the participation of senior management, and the two work together to affect the corporate integrity of the company. This article uses 10 test questions to measure executive support. Because of its high reliability and validity, it has been widely used for reference by subsequent studies. Dong (2009) proposed that executive support includes three dimensions, namely: sharing the vision with corporate members, supporting management changes, and providing resource support for informationization project H. The first dimension belongs to emotional participation, and the latter two dimensions belong to Behavior participation.

Chinese scholar Lijun et al. (2010) summarized the constituent elements of “senior management support” in previous studies, and proposed that executive support includes two dimensions: “senior management’s belief” and “senior management participation”. affect each other. The belief of senior management refers to the subjective understanding of the value and meaning of informatization by senior management; the participation of senior management refers to the specific behavior of their participation in enterprise informatization. Haiqing et al. (2017) summarized previous studies on the concept of “executive support” and summarized four representative views: executive support includes two elements: behavioral participation and psychological input; executive support is based on the recognition of corporate executives on the improvement of corporate performance brought about by informatization; executive support can provide a good atmosphere and resource support for corporate informatization reforms. In the process of studying the impact of executive support on the effectiveness of information security management, Dekun et al. (2019) also divided the definition of executive support into four categories, and their concepts are similar to those of Bai et al.

To sum up, although scholars have different definitions of executive support, most of them agree that senior managers demonstrate their support for enterprise informatization through subjective cognition and specific behavior.

2.2 Informationization Performance

Informatization performance is mainly used to measure the business performance generated by the investment of enterprises in the totalization of information projects, which is the comprehensive value of informatization projects (Raghunathan, 2004). Informatization has become an important way for contemporary enterprises to gain a competitive advantage, and the evaluation of informatization performance has also been paid more and more attention. Informatization performance evaluation refers to the use of a scientific evaluation system to evaluate the effects of informatization (Raghunathan et al., 2004). Research on the performance evaluation of informatization mainly includes two perspectives: macroscopic and microscopic: evaluation from the macro perspective refers to the evaluation of the process and effects of informatization from the government level. The government formulates an overall plan and establishes informatization within the industry or region. Performance measurement methods and evaluation standards implement different standards for the informatization performance of different industries and regions, and can also be used as the basis for industry or regional informatization performance supervision and scientific decision-making. The evaluation from the micro perspective is to evaluate the effect of informatization application from the enterprise level, which mainly includes the evaluation of the informatization strategy, the management control in the project process, and the informatization result. Enterprise-level informatization performance evaluation has become an important way to assess the success or failure of informatization projects or the status of production and operation. Its main purpose is to supervise the informatization process by the requirements of the market economy and improve the efficiency of enterprise informatization investment. This research intends to take appropriate measures and criteria to evaluate the effectiveness and efficiency of enterprise informatization from a micro perspective. At present, most of the relevant research in China evaluates the implementation results of information projects from the IT perspective, such as software and hardware construction, database construction and use, system applicability, and system maintenance costs. However, the evaluation system based on the IT perspective puts too much emphasis on the evaluation of information technology itself, and cannot fully reflect the role of informatization in improving business performance. This paper intends to draw on relevant research on innovation performance evaluation, explain the performance of enterprise informatization from the perspective

of business management, and mainly measure the degree of improvement in management efficiency or operational performance brought by the adoption of information technology by enterprises, from decision efficiency, operational effects, and cost control Evaluate and measure it.

2.3 Information Change

This paper defines senior managers as playing a key role in the planning and implementation of enterprise informatization, responsible for the formulation and release of major informatization decisions, undertaking the formulation of development plans and management systems, and responsible for guiding employees, implementing, and organizing informatization The project implementation group, they can directly or indirectly have an impact on the performance of informatization. The direct impact is that as the main members of the company, their knowledge and behavior of the use of information systems will bring about changes in the information performance. the indirect impact is that the senior managers can trigger the company's information changes, including organizational changes and technological changes. To affect the perception and acceptance level of other members of the enterprise for informatization, and then affect the performance of enterprise informatization. Through previous research findings, most scholars believe that corporate executives mainly influence corporate informatization by triggering organizational changes, including informatization strategy, system, and policy changes (James et al., 1977; Vaidyanathan, 2004; Xuhong, 2016; Qunhui et al., 2019). But some scholars have also proposed that senior managers can also have a direct impact on the technical factors in the process of informationization (King, 2008; Rachael, 2008; Xu Feng, 2018). Therefore, this paper proposes that the informatization reform initiated by senior managers includes three dimensions: the informatization strategy dimension, which mainly includes the strategic positioning of informatization, the formulation of long-term development goals, and the guiding process of achieving goals. The dimension of the informatization atmosphere mainly refers to the changes in informatization management systems and policies, including incentive systems, training systems, and resource support systems. The relevant research in the field of innovation atmosphere is borrowed here, and it is named Xinzhuang atmosphere. Technical matching dimension. Although the senior management will directly affect the technological change of the enterprise, it is not all aspects of the technological change, but the compatibility of the system and the organizational process, and the matching of technology and specific tasks. To make the following text more targeted It adopts "technology matching" to characterize the technological changes that can be directly influenced by senior management.

2.4 Organizational Communication

Organizational communication refers to the process of a series of information transmission activities carried out by corporate members to achieve corporate goals (Breen et al., 2005). As long as the information exchange is for work purposes, whether it is within the enterprise or between the enterprise and the outside world, it belongs to the category of organizational communication (Fragale et al., 2012). External communication refers to the communication between the company and external organizations such as government departments, partners, customers, and news media to establish a good image; internal communication refers to the communication carried out by corporate members to coordinate relationships and achieve the goals of the company in which they are located Information exchange (Mackenzie, 2010). The organizational communication that this research focuses on is mainly internal communication, which means that to achieve corporate goals and perform job responsibilities, corporate members communicate emotions and ideas in a variety of ways. Organizational communication focuses on how the members of the company elaborate and exchange work-related information to promote mutual understanding, cultivate cohesion between groups, achieve efficient integration of human resources, and ultimately achieve corporate goals. Good organizational communication is of positive significance for improving employee attitudes and improving work output.

Organizational communication mainly occurs in work situations and occasions, and the content of communication has the dual attributes of interpersonal communication and work communication (Qingling et al., 2007). This research mainly focuses on the significance of organizational communication to promote the transformation of enterprise informatization. In the process of enterprise informatization, enterprises and software suppliers, between various departments of the enterprise, and among enterprise members need to use formal or informal communication media for information exchange. The effect of communication will affect the enterprise's informatization decision-making and The acceptance of information technology by its members (Feng, 2019). In the process of informatization, the factors that can affect the effectiveness of organizational communication include the commanding strength of the superior leaders to force the use of information technology, the scientificity and clarity of the informatization strategy and system, the strength of the enterprise's promotion of informatization, and the relationship between members The closeness of the relationship and the application value of information technology (Mackenzie, 2010). Enterprise members can deepen their

understanding and enthusiasm for informatization through information sharing, emotional expression, and joint participation. Therefore, a good organizational communication atmosphere is conducive to the promotion of information strategy and management systems in the enterprise, and it can also accelerate the popularization and application of information technology within the enterprise.

3. Hypothesis Development and Research Model

3.1 Top Management Supports Influence Informationization Performance

Scholars have increasingly studied the relationship between executive support and enterprise informatization construction. In the process of studying the main influencing factors of enterprise informatization, they found that executive support is a decisive factor in ensuring informatization construction (Doll, 2001; Bell, 2005; Ling et al., 2007; Xu et al., 2018; Haiqing et al., 2011). Executive support will effectively affect the effect of enterprise informatization, including the depth and breadth of informatization, the level of acceptance of information technology by employees, the success or failure of informatization projects, and the level of informatization performance (Raghunathhan et al., 2004; Chuck, 2007; Lijun, etc., 2010; Lin, 2010; Xiaochun, 2012). The executive support in this paper includes two dimensions: executive beliefs and executive participation. The senior management belief mainly refers to the knowledge and understanding of the senior management of the enterprise informatization, for example, how they judge the value of the enterprise informatization and the feasibility of the informatization. The stronger the belief of executives, the deeper their understanding of informatization, which has far-reaching significance for improving the informatization environment and promoting informatization performance. Senior management participation refers to the specific actions taken by senior managers to improve informatization strategy, create an informatization atmosphere and promote technology matching, and can be perceived by other members of the enterprise, such as establishing a reward and punishment system, participating in informatization construction meetings, etc. The participation of senior management will affect the enthusiasm of enterprise employees to participate in the construction of informatization and guide employees to accept informatization reforms quickly, thereby improving the performance of enterprise informatization. Therefore, this paper proposes the following hypotheses:

H1: Top Management Supports is positively correlated with Informationization Performance.

3.2 Top Management Supports and Information change

In the process of studying the changes in the information system, it was found that the support of senior management is the basis for the formulation of informatization strategies and policies of enterprises. Informatization strategies and policies are the external manifestations of the informationization concepts and cognitions of senior managers (Hambrick et al., 1984; Lefebvre et al., 1997). Executive support has a positive impact on the scientific nature of the informatization strategy. Sharma (2003) verified the powerful role of executive support in creating a corporate system atmosphere, emphasizing that executive support can play a positive role in both institutional policies and innovative practices. Senior management support can influence the informatization atmosphere through incentive systems, training systems, and resource support, thereby affecting informatization changes. The higher the technology/task matching index, the greater the possibility of improving work efficiency, and corporate members are often more willing to use the technology (Ambertson, 2005). Senior managers need to strengthen the contact with the enterprise information project manager, enhance their knowledge and understanding of information technology, and improve the degree of matching between information systems and specific tasks. Senior management support helps ensure the consistency of information technology and business processes, and can promote information management changes. In summary, executive support has a positive impact on the three dimensions of information transformation. Therefore, the following hypothesis is proposed:

H2: Top Management Supports is positively correlated with Information change.

3.3 The Mediating Role of Information Transformation

It can be seen from the acquisition process of informatization performance that informatization change variables play an intermediary role between executive support and informatization performance. The ideas and behaviors of senior managers firstly act on various organizational and technological changes in the process of informationization (James et al., 1977; Vaidiyathai, 2004; Xuhong, 2006; Qunhui et al., 2013; King, 2008; Rachael, 2008; Feng, 2012), which mainly includes three aspects: informatization strategy, technology four-matching and informatization atmosphere, which in turn affects the informatization performance of enterprises. Benzion et al. (1989) pointed out that higher-level managers can also directly influence lower-level employees. Therefore, the support of information technology by senior managers will also affect employees'

cognition and enthusiasm for use. Of course, the so-called “direct impact” here is not obtained through direct interaction between corporate members and senior managers, but corporate members judge the trend of information transformation through their cognition of corporate strategy, management system, and technical policies. And it is the process of deciding whether to produce active information technology use behavior (Chuck et al., 2007). The use behavior of enterprise members is one of the prerequisites for the generation of enterprise informatization performance. Therefore, no matter from the enterprise level or the individual level, the senior managers influence the informatization performance of the enterprise by influencing the informatization reform of the enterprise, so they put forward the hypothesis:

H3: Top Management Supports improve Informationization Performance through Information change.

3.4 The Moderating Role of Organizational Communication

Enterprise informatization usually involves the creation of business processes and the redesign of organizational structure, both of which will be dominated by the original power structure of the enterprise (Karim et al., 2008), and a good communication and coordination mechanism is needed to help overcome employees’ problems. Resistant emotions (Cohen et al., 1990). Enterprises can smoothly implement informatization strategies and management systems through good organizational communication, help employees exchange information technology experience, and solve problems arising during the use process (Feng, 2012). To promote the acceptance of information technology by various departments and enterprise members, enterprises need to make a lot of communication efforts during the entire informationization project development process (Li et al., 2012). In addition, in the process of informatization reform, whether it is the use of information technology commands to communicate, or the promotion of informatization policies, or the dissemination of related information in informal groups, it may change the understanding of information technology and their attitudes towards use by business members. (Breen, 2005), a good communication environment is conducive to the promotion of enterprise informatization reform, thereby affecting the level of enterprise informatization performance.

H4: Organizational communication is positively strengthening the positive impact of Information change on Informationization Performance.

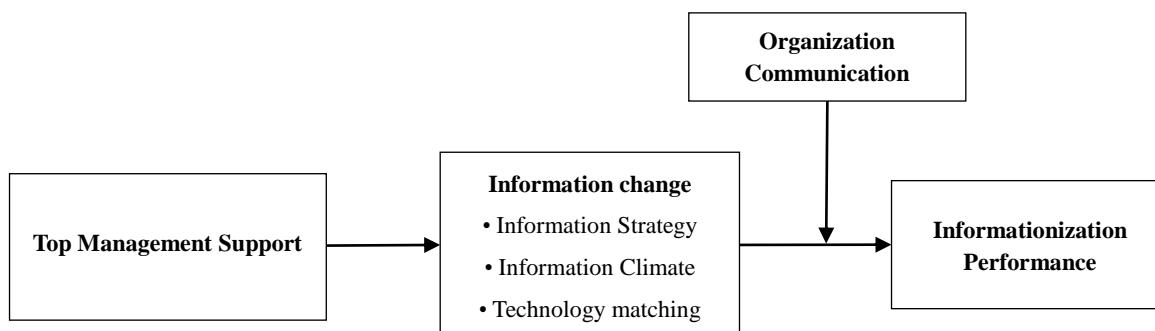


Figure 1. Research framework

4. Methodology

4.1 Data Collection

This paper takes enterprises in Guangdong Province of China as the research object. Collect data through the “Questionnaire star” of the Chinese professional questionnaire survey website. The questionnaires were distributed to mid-to-high-level business executives, members of the Guangdong CIO Alliance, and some information personnel. Before the official release, we conducted a pre-investigation to test the internal structure, reliability, and validity of each latent variable scale. There are 126 senior managers and ordinary employees from China Ping An Insurance and China Southern Power Grid in Guangdong Province were selected as the pre-survey objects, and the questionnaire items and structure were improved and adjusted based on the survey results and the feedback of the survey objects. The pre-survey samples were not effective in the formal survey. On this basis, the team issued a total of 430 questionnaires in the formal survey. After removing 11 invalid questionnaires, this paper finally obtained 419 valid questionnaires as analysis samples, and the effective questionnaire recovery rate was 91.22%. The sample recovery data shows that the sex ratio of men and women is balanced, 52% of men and 18% of women. Most of the ages are between 25-45, accounting for 87%. Most companies have implemented informatization for 1-4 years, accounting for 69%. There are 114 senior executives,

accounting for 27.2%, and 305 ordinary employees, accounting for 72.8%.

4.2 Measurement Development

The research on the connotation of executive support by Jarvenpaa et al. (1991) was widely used by later scholars. In the paper, they divided executive support into two dimensions: executive participation and executive involvement, and designed 6 items to measure the degree of executive participation, and 4 items to measure the degree of executive involvement. In the process of exploring the impact of executive support on IS strategy, Keams (2006) divided corporate executives into categories. They believed that corporate executives include CEOs and CIOs. Because of the different roles they play in the practice of informatization, they show Different support directions are given. The paper mainly measures the CEO's expectations for information systems, the degree of the CEO's participation in the practice of information integration, and the degree of the CIO's participation in the informationization plan. The two dimensions of the CEO measurement are based on the research content of Jarvenpaa et al., Only slightly different in the problem statement. The research of Chinese scholar Xiaochun (2012) also divides senior managers into business executives and technology executives. The measurement of business executives is mainly from the strategic level of participation, the cognition of information systems, and the practical level of participation. The first dimension mainly draws on the research content of Keams (2006), and the measurement of the latter two dimensions mainly draws on the research of Jarvenpaa et al. (1991). Through a literature review of the measurement of executive support, combined with the previous definition of the scope of executives, this paper also uses the questionnaire of Jarvenpaa et al. (1991) to measure executive support.

Informatization reform includes three dimensions: informatization strategy, informatization atmosphere, and technology matching. There are relatively little researches on the measurement of enterprise informatization strategy, and the most influential one is the related research done by Keams (2006). This research also mainly refers to the related research of Kearns (2006) to measure the dimensions of informatization strategy. The measurement of the informatization atmosphere draws on the relevant research of the innovation atmosphere and finally measures it from the three aspects of the training system, incentive system, and resource support. The training system adopts the scale of Amoako et al. (2004), including items such as comprehensive training content for enterprise-centric technologies. The incentive system and resource support draw on the scale of Dong (2003) including "the better the use of information technology, the more likely to be rewarded or praised each month", "the enterprise is equipped with the software and hardware required for the application of information technology", and "the enterprise implements "Informatization has prepared enough funds" and other topics. The technology matching dimension draws on the scale measurement technology/task matching degree of Moore et al. (1991).

This paper refers to the related research of Ruppel et al. (2000) and Hefeng (2007) to measure organizational communication, including "leaders and subordinates can communicate more easily and freely." "In an enterprise, mutual communication is Very frankly and openly" is the third item.

Raghunathan et al. (2004) studied the relationship between executive support and informatization performance, using five items to characterize the performance of enterprise informatization, and these five evaluation indicators were widely used by later scholars. Therefore, this paper also adopted the scale of Raghunathan et al. (2004) to measure the performance of informatization.

5. Data Analysis and Results

5.1 Reliability and Validity Analysis

In this paper, SPSS25.0 and AMOS24.0 software were used to test the reliability and validity of the variables. Cronbach's α value was used to test the reliability of variables. Cronbach's α values were all greater than 0.7, indicating good reliability of the scale. In addition, confirmatory factor analysis (CFA) was used to verify the scale's structural validity and discriminative validity, and the results are shown in Table 1. As can be seen from Table 1, the fitting degree of the five-factor model was the best, $\chi^2/df = 3.869$, RMSEA = 0.091, CFI = 0.932, TLI = 0.915. The fitting indexes all reached the standard and had good discriminating validity, while the fitting degree of other factor models was poor. The variable reliability and validity are very good, the model fitting is good.

Table 1. Confirmatory factor analysis (N = 419)

Model	χ^2	df	χ^2/df	TLI	GFI	RMSEA
Four-factor model	765.892	235	2.869	0.915	0.932	0.091
Three-factor model	917.182	241	3.184	0.838	0.893	0.083
Two-factor model	846.324	241	3.492	0.847	0.879	0.095
Single factor model	287.485	258	12.349	0.472	0.527	0.198

Note. Four-factor model: Top Management Supports, Information change, Informationization Performance, Organizational Communication; Three-factor model combines Information change and Informationization Performance into one factor; Two-factor model combines Top Management Supports, Information change, Informationization Performance are combined into one factor; Single factor model combines all variables into one variable.

5.2 Correlation Analysis

Table 2 shows the correlation analysis results of each variable. It can be seen from Table 2 that the mean and standard deviation of each variable are within a reasonable range, and the correlation coefficient results meet the requirements of further regression analysis. Top Management Supports and Informationization Performance ($r=0.481$, $p<0.01$), Information change ($r=0.825$, $p<0.01$) a significant positive correlation. Information change and Informationization Performance ($r=0.517$, $p<0.01$) are also significantly positively correlated. The results of this correlation analysis provide preliminary evidence for subsequent hypotheses. Moreover, there is no significant correlation between Organizational Communication and Informationization Performance ($r=0.059$, $p>0.05$), which indicates that the effect of Organizational Communication on Informationization Performance is not significant, which is in line with the research logic of the regulation of Organizational Communication in this paper.

Table 2. Description statistics and correlation analysis of each variable

	M	SD	TS	IC	OC	IP
TS	4.379	1.483	1			
IC	3.443	1.499	0.825**	1		
OC	3.207	1.446	0.628**	0.727**	1	
IP	3.221	1.290	0.481**	0.517**	0.059	1

Note. **. 0.01 level (two-tailed), the correlation is significant. M is the mean, SD is the standard deviation, TS is Top Management Supports, IC is Information change, OC is Organizational Communication, IP is Informationization Performance.

5.3 Hypothesis Test

5.3.1 Main effects test

As shown in Table 3, Model 3 examines the relationship between control variables and informatization performance, and Model 4 confirms that there is a significant positive correlation between executive support and informatization performance ($\beta=0.749$, $p<0.01$), indicating Executive support can effectively improve informatization performance, hypothesis 1 is supported.

5.3.2 Mediation Effect Test

Based on Model 4, informatization reform was introduced as an intermediary variable, and Model 5 was constructed. It can be seen from Model 5 that after joining the informatization reform, the coefficient between executive support and informatization performance has changed from 0.749 to 0.217, and the informatization reform and informatization performance are significantly positively correlated ($\beta=0.636$, $P<0.01$). The results show that informatization reform plays a part of the intermediary role in the relationship between executive support and informatization performance, and Hypothesis 3 is supported.

5.3.3 Regulation Effect Test

Based on Model 5, the interaction items of organizational communication and information transformation and organizational communication are added, and Model 6 is constructed to verify the moderating effect of organizational communication. The results show that organizational communication has a positive moderating effect between informatization reform and informatization performance ($\beta=0.672$, $p<0.05$), and Hypothesis 4 is supported. In this paper, according to the recommendations of Aiken et al. (1991), a diagram of the effect of regulation was drawn (see Figure 2). It can be seen from Figure 2 that in the context of high-level organizational communication, informatization reform has a stronger positive impact on informatization performance.

Because of this, the above empirical results all support the research hypothesis. The empirical results also prove

that top managers are leading the company's information transformation. Informatization reform plays a key role in the organization and communication atmosphere in the promotion process of an enterprise. Good organizational communication can help enterprise members understand the strategies and management systems related to informatization, reduce barriers to management change, and help sub-enterprise members to find and solve the use Problems in information technology provide the possibility for them to use information systems or information technology more effectively. The smooth development of information technology reform will be very helpful to improve the information technology performance of enterprises.

Table 3. The results of regression analysis (N=419)

Variable	IC		IP			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.012	0.032	0.009	0.013	0.035	0.035
Age	0.052	0.023	0.089**	0.026	0.029	0.029
P	0.026*	0.012	0.064*	0.017	0.023	0.023
YW	0.010	0.019	0.016	0.021	0.026	0.026
NE	0.084**	0.052	0.134***	0.095***	0.074***	0.074***
YS	0.383*	0.429	0.162*	0.245*	0.154*	0.154*
TMS		0.258***		0.749***	0.217***	0.201***
IC					0.636***	0.427***
OC						0.483*
IC×OC						0.672*
R ²	0.023	0.432	0.023	0.432	0.722	0.426
ΔR ²	0.024	0.436	0.024	0.436	0.496	0.508
F	10.673***	120.781***	10.673***	120.781***	132.583***	156.186***

Note. * p < 0.05, ** p < 0.01, *** p < 0.001; P is Position; YW is Years of Work; NE is Nature of the enterprise; YS is the years of use of information systems.

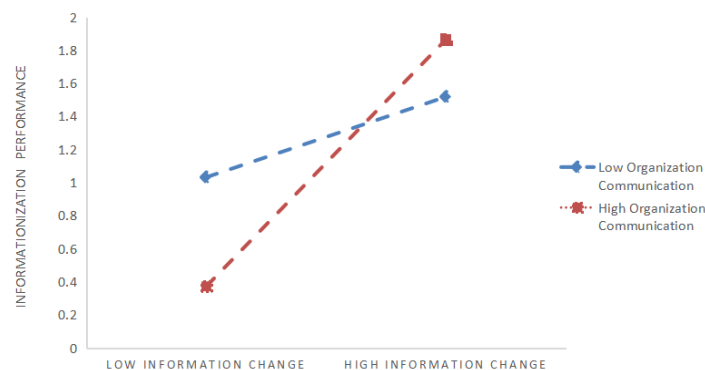


Figure 2. The moderating effect of organizational communication on informatization reform and informatization performance

6. Conclusion

6.1 Major Findings

This paper draws on relevant research in the fields of executive support, informatization performance, organizational communication, innovation theory, etc., and proposes a model of the influence mechanism of executive support on the informatization performance of enterprises. Taking enterprises in Guangdong Province as the research object, collecting data through questionnaire surveys, using SPSS25 for statistical analysis, empirically verifying all the hypotheses, and explaining the mechanism and process of senior management's support to affect the performance of enterprise informatization. The main conclusions are as follows: Top Management Supports is positively correlated with Informationization Performance; Top Management Supports is positively correlated with Information change; The level of support and the performance of informatization play an intermediary role. From an organizational perspective, the ideas and behaviors of senior managers first affect the informatization change in the enterprise, which mainly includes three aspects: informatization strategy, technology matching, and informatization atmosphere, which in turn affects informatization performance. From an individual perspective, executive support will affect employees' cognition and enthusiasm for use. Of course, this impact is not produced through direct interaction between corporate members and senior managers, but corporate members through the strategy and management system of corporate informatization. To determine the

trend of informatization change based on the cognition of technology and policy, and based on this, decide whether to actively use information technology, and this use behavior of enterprise members is one of the prerequisites for achieving informatization performance. Therefore, no matter from the organizational level or the individual level, the senior management influences the informatization performance of the enterprise by influencing the informatization reform of the enterprise. Organizational communication has a positive regulatory effect on the indirect effects of informatization reform and informatization performance. Organizational communication plays an important role in the promotion of informatization reform. On the one hand, enterprises can promote the understanding of informatization strategy by their members by creating good organizational communication, to enable them to have a more thorough understanding of informatization management systems and policies. Organizational changes made by executives are easier to promote and carry out. On the other hand, a good organizational communication atmosphere is also conducive to the popularization of enterprise information technology. Enterprise members can learn more about informatization-related knowledge through formal and informal channels, and master information technology faster and use it proficiently.

6.2 Contribution

The results of this paper have important implications for management practices: senior managers must have information awareness and support the informatization decision-making of the enterprise, which will help improve the performance of the enterprise. Enterprises should adjust informatization strategies and management systems to meet the needs of informatization.

- 1) Propose clear and feasible informatization strategies and development goals. Develop a clear informatization strategy and decompose the strategic goals into several phase goals to guide the managers and employees of the information department.
- 2) Strengthen the construction of supporting systems for informatization. First, establish a feasible training reward and punishment system to improve the self-learning effect of employees. Due to the limitation of training resources and the pressure of work tasks, it is difficult for most companies to train all employees in information technology during working hours. Therefore, improving the effectiveness of employees' self-learning becomes the primary task. Companies must not only provide material, time, materials, and other support but also improve the training and assessment system and rewards and punishments to stimulate the enthusiasm of employees for self-learning. Second, build a scientific and effective incentive system. Incentives in the process of informatization mainly focus on the following three aspects: constructing a reasonable salary system to make up for the changes made by employees for informatization construction; providing employees with fair promotion opportunities so that they can see the career benefits brought by informatization Development opportunities; scientific division of labor and cooperation by standardized and logical requirements. Finally, provide adequate resource protection. Enterprises need to accurately predict the possible impact of informatization, as well as the difficulties that may be encountered in the implementation of informatization, and correctly estimate the required resources, including funds, time, data, and other resources, to provide adequate resource protection.
- 3) Adjust the organizational structure to better adapt to information changes. On the one hand, enhance the adaptability of the organizational structure and the information system. Information technology can effectively improve the work efficiency of managers, thereby increasing the scope of management, and promoting the flat development of the organizational structure. Encourage companies to pay attention to adjusting the psychological state of the retrenched managers so that they can adapt to new jobs. On the other hand, improve the compatibility of information systems and organizational processes. Compatibility between business processes and information systems is a necessary prerequisite for choosing an information system, but it is sufficient that senior managers look at the enterprise's informatization projects more from a strategic perspective, and pay less attention to the details of the information system; and developers often seize any opportunity Reduce development costs, which leads to the superficial compatibility of information systems and organizational processes. To solve this problem, there are two possible ways: One is the long-term and continuous cooperation between the enterprise and the software developer so that the developer fully understands the operation process of the enterprise, but this requires the enterprise to pay a higher cost. The second is to supervise the software purchase process by personnel who understand both management and technology and require suppliers to adjust the modules and interfaces of the system according to the specific needs of the enterprise.
- 4) Improve the matching of tasks and technology. Compared with system/organization compatibility, technology/task compatibility belongs to the enterprise technical operation level rather than the management level, and the details are more obvious. It mainly emphasizes the compatibility and interaction between specific

tasks or tasks and information systems, which will directly affect Common employees' use awareness and behavior. When the enterprise introduces the system, it should try to ensure that the information system has a high degree of matching with the work content of the employees.

Improve the acceptance of information technology among business members. First, build a good organizational communication atmosphere and improve the quality of organizational communication. A good communication atmosphere can play two roles in the informatization process: On the one hand, organizational communication is an important guarantee for the implementation of various systems and incentive measures. Organizational communication is the process of informatization can help employees communicate with their superiors and colleagues, understand more thoroughly informatization strategies and related systems, and better accept informatization changes. On the other hand, a good communication atmosphere can help employees quickly master technology and use it. In the process of enterprises adopting information systems, continuous communication between various internal functional departments and individuals helps employees quickly master relevant technologies and improve the performance of enterprise informatization. Second, strengthen the awareness of the use effect of the information system. After a period of use, employees will make their judgments on the effectiveness of the information system. This judgment includes not only the improvement of work efficiency but also other tangible or intangible benefits they can obtain, such as salary increase, position promotion, etc. . Senior managers need to empathize and take effective measures to make employees truly feel the benefits of using information systems. Third, senior management leads by example and promotes the "effective" use of work. Scholars in the field of technology adoption tend to use behavior as a result variable of the use of information systems and believe that there is a positive correlation between usage behavior and enterprise information performance. The promotion of employees' use behavior mainly includes two aspects: increasing the frequency of employees' use of information systems. For the work that can be done with or without the system, employees are encouraged to use the system to complete it. Ensure the sustainability of use behavior. In addition to material rewards for employees who use the system well, they can also set up typical models among employees, or select "mentors" from outstanding employees, and be responsible for supervising and helping other members of the team to use information systems for incentives.

7. Limitations

There is still room for further exploration of the theoretical mechanism that senior management supports and affects the performance of enterprise informatization. This paper is mainly based on the process of informatization performance generation, but there is still the possibility of further deepening based on the research results. For example, on the path of executive support-technology/task matching-informatization performance, although executive support can significantly affect technology/task matching, the standardized P-value is much lower than the impact of executive support on other factors. , And the impact of technology/task matching on informatization performance is significantly higher than other variables. Therefore, it is necessary to explore whether there is an intermediary or moderating variable between executive support and technology/task matching that can enhance the correlation between the two. Therefore, through more in-depth theoretical research and practical investigation, the entire model can be enriched so that it can better guide the enterprise informatization practice. This paper mainly studies how executive support affects the performance of informatization from the enterprise level. In future research, we can consider carrying out relevant research from the external factors of the enterprise or the level of individual enterprise members. For example, research in the field of individual technology adoption believes that the individual cognition and use intention of corporate members will affect their use behavior, and the effective use behavior of individuals is a prerequisite for the generation of corporate informatization performance. Future research can combine this field Related research, cross-level analysis of how executive support influences the informationization atmosphere, and then affects individual adoption, and ultimately affects the level of enterprise informatization. In addition, cross-cultural research can be used to gain a deeper understanding of the influence process of corporate executives on informatization.

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