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Human resources leverage, technological capability and cost efficiency: Basis to enhance organizational agility framework

Wang, Xujuan ✉
Graduate School, Lyceum of the Philippines University - Batangas, Philippines

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Abstract

In today's competitive landscape, with the continuous technological progress and improvement, organizations must be agile to thrive. To adapt to the changes, the organization needs to build a more powerful, flexible and efficient framework system. This can help to improve its competitiveness, response to market changes, and sustainability, laying a solid foundation for the long-term development of the organization. This study investigates the interplay between human resource leverage, technical capabilities, and cost efficiency, in enhancing organizational agility. A descriptive research design with questionnaire surveys was employed to examine the relationships among the variables. It performs statistical analysis using regression and analysis of variance. Results indicated moderate positive correlations among human resource leverage, technical capabilities, and cost efficiency. These factors mutually influence organizational agility and competitiveness. They promote each other, have direct or indirect effect, adapt to the change of the market need to improve the competitiveness, at the same time enhance the organization of market changes. This suggests that by optimizing human resource management, organizations can improve their technical capabilities and thus reduce their costs. The improvement of organizational technical ability can promote the rationalization of human resource management and positively adjust the cost efficiency of the organization. The improvement of organizational cost efficiency positively promotes the improvement of organizational technical ability, and human resource management can play a better role. By optimizing human resource management, enhancing technical abilities, and improving cost efficiency, organizations can significantly enhance their agility and achieve sustainable growth.

Keywords: human resources leverage, technological capability, cost efficiency, organizational agility

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1. Introduction

The rapid evolution of technology has intensified market competition, demanding heightened organizational agility. To thrive in this dynamic landscape, organizations must optimize human resource leverage, technical capabilities, and cost efficiency. This study explores the intricate relationships among these factors and their collective impact on organizational performance and market adaptability. By examining how these elements interact and influence one another, we aim to develop a framework for enhancing organizational agility.

Human resource lever is used to measure the effectiveness of human resource management. Organizations can maximize their benefits through effective human resource management. Human resource management mainly involves personnel cost, personnel quality, personnel mobility and transformation management, etc. Through personnel allocation, training, incentive and other related measures to achieve the efficient management of human resources. Technical ability refers to the strength and ability of corporations in technology research and progression, product innovation and other ways. Technical competence is mainly determined through technical expertise, technical leadership, and technical adjustability. Cost efficiency is more concerned about how to maximize the cost reduction and enhance the benefits in the process of production and operation. Organizations can reduce the cost of human resources by introducing more advanced production equipment, processes and processes to enhance production efficiency and product quality. Efficient human resource management can further stimulate workers 'creativity and work enthusiasm and enhance workers' satisfaction and loyalty to their work, so as to further enhance their technical ability and cost efficiency. In turn, enhancements in technical capabilities and cost efficiency can also attract and retain more outstanding people for organizations. The high leverage ratio of human resources means that corporations can achieve higher benefits through less human resources input, thus improving the cost efficiency. Through flexible talent recruitment, effective worker training, incentive mechanism and efficient human resource management process, the organization can meet the changing business needs, which can enhance the work efficiency of workers and optimize the allocation of human resources. Organizations need to maintain investment in new technologies and innovations, enabling them to quickly adopt new technologies, new processes, and new methods to respond to market changes. Advanced technology can not only reduce costs, but also help corporations to achieve fine management and optimal resource allocation. Cost efficiency is an important indicator of cooperation profitability. Organizations with strong technical ability can attract and retain more high-quality workers. Technical investment can not only enhance the working environment of workers, but also enhance their work efficiency, thus increasing the Human Resources leverage ratio.

Understanding the intricate relationship between human resource leverage, technical capabilities, and cost efficiency is crucial for enhancing organizational competitiveness and fostering sustainable growth. By examining how these factors interact, this study aimed to address critical challenges in strategic decision-making, technological innovation, human resource allocation, cost control, and industry competitiveness.

This study also aimed to unravel these complex relationships and develop strategies for optimizing their combined impact. By exploring how these factors interact, we seek to provide insights for improving strategic decision-making, technological innovation, human resource allocation, and cost management. This is great significance to the competitiveness of corporations, sustainable progression, organizational agility, and decision support and human resource management optimization and other ways. At the same time, such research can also provide scientific decision-making basis and guidance for corporations in human resource management, technology research and progression, and cost control.

Objectives of the Study - This study aimed to build an efficient, flexible, and adjustable organization to respond to rapidly changing market environments and business needs. By optimizing human resource allocation, enhancing technical capabilities, and achieving cost efficiency, organizations can enhance their agility and maintain a leading position in a fiercely competitive market. The study determined human resources leverage in terms of personnel cost, personnel quality, personnel mobility and transformation management. The study also assessed the technological capability in terms of technical expertise, technological leadership and technological adjustability. Evaluated cost efficiency in terms of budgeting, process standardization and lean management. Tested the significant relationship between human resources leverage, technological capability and cost efficiency. Finally, the researcher developed enhanced organizational agility framework.

2. Methods

Research Design - A descriptive research design with quantitative analysis was employed to examine the relationships among human resource leverage, technical capabilities, and cost efficiency. Quantitative research, as defined by Zhang et al. (2020), involved measuring variables numerically and analyzing them using statistical methods. This approach was chosen to identify patterns and relationships among the study variables.

Participants of the Study - The respondents of this study were 405 workers from the top five engineering and construction companies, located in Yunnan province based on their gender, age, educational background, position, department, years in the company etc. The respondents were asked to answer the questionnaire based on their respective business situation of human resources leverage, technological capability and cost efficiency in the company they are working for, then made their choices according to the situation of their company and the degree to which the answer matched.

Instruments of the Study - There are their sections to the questionnaire. the first part discusses the impact of personnel costs, personnel quality, personnel mobility, and transformation management on the level of human resource leverage; the second part discusses how technical expertise, technical leadership, and technical adjustability affect human resource technical capabilities; and the third section discusses the impact of human resource budgeting, process standardization, and lean management on cost efficiency. The respondents' opinions are gauged using a 4-point Likert scale, with each item receiving a score between 1 and 4. The degree of consistency decreases with a decrease in score, and increases with an increase in score. "4" represents strong agreement (SA), "3" represents agreement (a), "2" represents objection (d), and "1" represents severe opposition (SD). The reliability test results of my questionnaire are shown in Table 1：

Table 1

The Reliability Test Results

Variable	Cronbach's Alpha	Remarks
1A. personnel cost	0. 932	Excellent
1B. personnel quality	0. 931	Excellent
1C. personnel mobility	0. 916	Excellent
1D. transformation management	0. 912	Excellent
2A. technical expertise	0. 946	Excellent
2B. technological leadership	0. 915	Excellent
2C. technological adjustability	0. 924	Excellent
3A. budgeting	0. 915	Excellent
3B. process standardization	0. 927	Excellent
3C. lean management	0. 913	Excellent

Data Gathering Procedure - This study used a questionnaire survey method, with data from the top five engineering construction corporations in Yunnan province. The measurement scale used was adapted from the widely recognized scales in the current literature. Translation and reverse translation techniques was used to ensure the accuracy of semantic understanding. Secondly, four experts were invited to review the initial scale based on their relational research experience. Before distributing the formal questionnaire, a preliminary test on

the questionnaire was conducted, and then modified it based on the suggestions of the experts. After the modification, it was approved by the experts and the supervisor as the final measurement scale. This method incorporated the thoughts and perspectives of the respondents, and the questionnaire was distributed through a link generated through relational collaborative platforms. The questionnaire was distributed to 405 respondents via email, and respondents can directly fill it out through the link. The respondents voluntarily filled out the survey form. From February 13, 2024, to April 10, 2024, a total of 405 questionnaires were collected and validated.

Data Analysis - Enhance Organizational Agility level was evaluated using weighted mean and ranking to determine HR Leverage in terms of personnel cost, personnel quality, personnel mobility and transformation management; to determine the technological capability in terms of technical expertise, technological leadership and technological adjustability; and to assess cost efficiency in terms of budgeting, process standardization and lean management. The Shapiro Wilk test results revealed that the p-values of all variables were below 0. 05, this indicates that the dataset was not normally distributed. So, in order to determine the significant relationship, Spearman rho was used as part of the non-parametric test to determine the significant relationship. All analyses were conducted using SPSS.

Ethical Considerations - In this research, ethical issues such as informed consent and information sharing were considered. When respondents received questionnaires through different channels, they first considered voluntary participation in this study. The data collected from the Questionnaire Star platform can ensure that the information they provided did not leaked. Consent was also sought by the person in charge of the interviews. Ensured that interviewees had no concerns and answered questions based on actual situations. Secondly, respondents can choose not to answer any uncomfortable questions or refuse to participate. Finally, to protect the privacy of the respondents, they will not be photographed or recorded. All information and privacy in the questionnaire were strictly confidential.

3. Results and discussion

Table 2

Summary Table on Human Resources Leverage

Key Result Areas	Composite Mean	Verbal Interpretation	Rank
Personnel Cost	3. 18	Agree	3
Personnel Quality	3. 17	Agree	4
Personnel Mobility	3. 19	Agree	1. 5
Transformation Management	3. 19	Agree	1. 5
Grand Composite Mean	3. 18	Agree	

Legend: 3. 50 – 4. 00 = Strongly Agree; 2. 50 – 3. 49 = Agree; 1. 50 – 2. 49 = Disagree; 1. 00 – 1. 49 = Strongly Disagree

The summary of Human Resources Leverage is Table 2 . He explained the relational indicators of Human Resources Leverage from four ways: Personnel Cost, Personnel Quality, Personnel Mobility and Transformation Management. The mean value of the index is 3. 18. It shows that these four ways are appropriate and appropriate to interpret the relational indicators of Human Resources Leverage. Of the items shown, both Personnel Mobility and Transformation Management achieved the highest composite average of 3. 19 . It is evident that Most organizations agree that Personnel Mobility and Transformation Management have the greatest impact on Human Resources Leverage. the composite mean value of 3. 18 . And the lowest average score is also 3. 17.

Based on Table 2 corporations need to pay special attention to personnel mobility and personnel transformation management when evaluating human resource leverage. It shows that when the organization experiences transformation, workers have different adjustability to the new working environment, roles or requirements, and personnel mobility changes greatly. Like Wan et. al.,(2023) In the transformation management, the organization has a large demand for personnel and personnel mobility, and human resource management is difficult. It is necessary to pay timely attention to the status of workers through effective communication and

training, so as to reduce personnel mobility

Second, the impact on human resources leverage was higher on worker mobility than worker cost score. As personnel turnover becomes greater, organizations need to constantly recruit and train new workers, and the cost of human resource management will increase accordingly. Personnel mobility is the cause, while personnel cost change is the result. Wen (2023) believes that the increase of personnel mobility, higher requirements for worker professional quality and greater investment in personnel training, and should correctly control the risk of personnel flow and personnel cost risk, and find a balance. In the process of transformation management, the organization should attach great importance to the cultivation and enhancement of worker quality. Transformation management needs workers to have the ability and quality to adjust to the change, and can help workers to adjust to the new working environment and requirements through training. Like Wan et. al.,(2023) In the transformation management, the organization can enhance the skills of its workers through the cooperation with other training institutions. The organization also needs to establish a talent training and growth mechanism and other channels to enhance the quality of workers. The enhancement of personnel quality often requires more personnel costs, and organizations can attract and retain high-quality workers through high-quality training, incentives and welfare benefits. However, the investment of personnel cost and the enhancement of personnel quality need to find a balance, and different organizations will have different results. I think this is also the reason why the respondents believe that these two factors have a relatively little influence on the human resources leverage. Like Wan et. al.,(2023) To increase the training and education training of human resource management and introduce new workers with relational skills, the personnel cost will inevitably increase.

Table 3

Summary Table on Technological Capability

Key Result Areas	Composite Mean	Verbal Interpretation	Rank
Technical Expertise	3. 16	Agree	3
Technological Leadership	3. 19	Agree	1
Technological adjustability	3. 18	Agree	2
Grand Composite Mean	3. 18	Agree	

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 presents the summary result on Technological Capability. Among the indicators presented, Technological Leadership is the most important with the score of 3. 19 and ranked first, then followed by Technological adjustability. The least level of Technological Capability was observed on Technical Expertise with mean value of 3. 16.

For the technical ability, the influence of the technical leadership in the technical team is crucial. Technical leadership requires leaders to have solid technical knowledge and ability, change management and innovation ability, and needs to have strategic vision, the ability to stimulate team innovation and cooperation, good communication skills and other comprehensive capabilities. Super competent leadership can drive the team to grow and innovate to achieve greater technical success. Jin et. al.,(2020) believes that technical ability is an important technical knowledge resource of corporations, and the technical ability of the leader is crucial to the enhancement of technical ability. At different stages of progression, leaders need to adopt different strategies. Wu et. al.,(2021) It is believed that leaders should have strategic thinking and awareness of the overall situation, be able to predict future technical trends, be good at organization and coordination, and be good at focusing on key points and key points. In the face of technical challenges and market changes, leaders have the ability to lead the team to innovate and change, to find new solutions and innovation points, so that the organization's technical capabilities to maintain a leading position in the rapidly changing market environment. Technology adjustability pays more attention to individuals' ability to adjust to new technologies, while technology leadership covers a broader scope. Leaders should not only involve in the field of technology adjustability, but also have strategic vision, focus on teamwork, and lead the team to constantly enhance new technologies. Technical expertise focuses more on technical skills, including education level, experience and practice, continuous learning, self-drive, and teamwork help to enhance personal skills. In today's society, technology is developing rapidly,

and it is hard to adjust to the changing market needs and technology environment only by relying on technical expertise. On the contrary, workers with strong technical adjustability are more able to master new technologies faster and constantly enhance and innovate in practice.

Table 4 presents the summary result on cost efficiency. Among the indicators presented, Lean Management is the most important with the score of 3. 21 and ranked first, then followed by Budgeting and Process Standardization（3.18).

Table 4

Summary Table on Cost Efficiency

Key Result Areas	Composite Mean	Verbal Interpretation	Rank
Budgeting	3. 18	Agree	2. 5
Process Standardization	3. 18	Agree	2. 5
Lean Management	3. 21	Agree	1
Grand Composite Mean	3. 19	Agree	

Legend: 3. 50 – 4. 00 = Strongly Agree; 2. 50 – 3. 49 = Agree; 1. 50 – 2. 49 = Disagree; 1. 00 – 1. 49 = Strongly Disagree

On the whole, In order to enhance the cost efficiency, organizations should focus on improving the management level of corporations. Through in-depth analysis and enhancement of all ways of the cooperation, lean management can achieve a comprehensive enhancement of cost efficiency and effectively control the cost. Although cost budget in advance and standardized process management of corporations can also enhance cost efficiency, the benefit enhancement brought by lean management is continuous, standardized management lacks flexibility and innovation, and cost budget is not dynamic. Lean management can enhance cost efficiency more comprehensive, deep and dynamic oriented by customer value. According to Zhang (2024), lean management is a new management mode evolved from the continuous optimization of the original cost management mode, and it is more suitable for the business model of modern corporations. Hu (2024) believed that lean management can effectively reduce costs and enhance efficiency, which is a management mode more commonly used by corporations at present. Lean management focuses more on the detailed management of cooperation operation, which helps corporations to allocate resources more efficiently and scientifically. With efficient management mode, help corporations integrate resources and try to reduce unnecessary capital expenditure. corporations should strengthen scientific management, gradually refine the management work, and bring into full play the real value of lean management to cooperation operation.

For corporations, Jiang (2024) explained that scientific and reasonable use of lean cost management method on the one hand can reduce the production and operation costs, enhance cooperation economic benefit, lean management should attach great importance to the cost accounting, under the standardized management model to strengthen the control of details, can effectively enhance the cooperation competitive strength in the market, make the cooperation steadily in the complex market environment. In addition, the lean cost management should clarify the management principles and requirements, combine the cooperation management strategic goals and the actual situation to increase the cost management, effectively control the production cost, achieve cost reduction and efficiency increase, and promote the sustainable and stable progression and growth of the cooperation.

Table 5 shows us the correlation between human resource leverage and technological capabilities. And the calculated rho values range from 0.412 to 0.529, indicating a moderate direct correlation with a p-value less than the alpha level of 0.01. Therefore, the correlation value is at a moderate level, but the strength of the relationship between variables is very obvious. There is a moderate direct relationship between sub variables such as human resource leverage and technological capability. There is a correlation between the leverage of human resources and technological capabilities.

Table 5

Relationship Between Human Resources Leverage and Technological Capability

Variables	rho-value	p-value	Interpretation
Personnel Cost			
Technical Expertise	0. 507**	< . 001	Highly Significant
Technological Leadership	0. 446**	< . 001	Highly Significant
Technological adjustability	0. 482**	< . 001	Highly Significant
Personnel Quality			
Technical Expertise	0. 457**	< . 001	Highly Significant
Technological Leadership	0. 469**	< . 001	Highly Significant
Technological adjustability	0. 432**	< . 001	Highly Significant
Personnel Mobility			
Technical Expertise	0. 446**	< . 001	Highly Significant
Technological Leadership	0. 495**	< . 001	Highly Significant
Technological adjustability	0. 529**	< . 001	Highly Significant
Transformation Management			
Technical Expertise	0. 412**	< . 001	Highly Significant
Technological Leadership	0. 516**	< . 001	Highly Significant
Technological adjustability	0. 479**	< . 001	Highly Significant

**. *Correlation is significant at the 0. 01 level*

Human resource leverage is mainly measured from four ways: personnel cost, personnel quality, personnel turnover and transformation management, while technical ability is measured from three ways: technical expertise, technical leadership and technical adjustability. Whether it is human resource leverage or the enhancement of technical ability, they are inseparable from people. With the new management mode, we can finally achieve the enhancement of the final technical ability and work efficiency through a variety of management modes such as lean management, standardized management and transformation management (Liu 2024). The allocation of human resources needs to analyze the characteristics of workers, understand the working ability of each employee, such as their technical ability, innovation ability, communication and coordination ability, organizational ability, and strengthen team cooperation, so as to provide an effective basis for a more rational and scientific allocation of human resources. Finally, it is necessary to find a balance between personnel mobility, cost and quality to realize efficient management of human resources (Sa 2023).

Wang (2023) stated that in today's era of high speed progression, to actively adjust to the changing market environment and technology progression, society is more and more attention to talent, and from the ways of knowledge and technology put forward new requirements for talent, intensified talent competition between corporations, so we must strengthen the pace of human resource management, improving technical ability.

In the era of progression of science and technology, the enhancement of technological ability cannot be separated from innovation and change, and innovation and change need the technical leadership with strategic vision and workers with innovative spirit and motivation. Li (2023) believed that human resource management measures can be achieved by improving the working environment of workers, enhancing employee welfare and treatment, stimulating employee enthusiasm, and improving employee loyalty and satisfaction. Therefore, there is mutual promotion and influence between human resource leverage and technical ability. We can enhance the technical ability and innovation motivation of worker team and organizations.

Table 6 shows us the correlation between human resource leverage and Cost Efficiency. And the calculated rho values range from 0.424 to 0.507, indicating a moderate direct correlation with a p-value less than the alpha level of 0.01. Therefore, the correlation value is at a moderate level, but the strength of the relationship between variables is obvious. There is a moderate direct relationship between sub variables such as human resource leverage and Cost Efficiency. There is a correlation between the leverage of human resources and Cost Efficiency.

Table 6

Relationship Between Human Resources Leverage and Cost Efficiency

Variables	rho-value	p-value	Interpretation
Personnel Cost			
Budgeting	0. 479**	< . 001	Highly Significant
Process Standardization	0. 488**	< . 001	Highly Significant
Lean Management	0. 445**	< . 001	Highly Significant
Personnel Quality			
Budgeting	0. 469**	< . 001	Highly Significant
Process Standardization	0. 472**	< . 001	Highly Significant
Lean Management	0. 424**	< . 001	Highly Significant
Personnel Mobility			
Budgeting	0. 446**	< . 001	Highly Significant
Process Standardization	0. 458**	< . 001	Highly Significant
Lean Management	0. 469**	< . 001	Highly Significant
Transformation Management			
Budgeting	0. 507**	< . 001	Highly Significant
Process Standardization	0. 474**	< . 001	Highly Significant
Lean Management	0. 491**	< . 001	Highly Significant

***. Correlation is significant at the 0. 01 level*

Human resource leverage is mainly measured from four ways: personnel cost, personnel quality, personnel turnover and transformation management, while cost efficiency is measured from three ways: budgeting, process standardization and lean management. Whether it is the leverage of human resources, or the enhancement of cost efficiency, they are inseparable from people. Ruan (2021) expressed that human resources costs account for a relatively large share of cooperation costs. If the effective and reasonable use of human resources leverage can help corporations to control and manage the cost of human resources. Organizations can reduce the cost of human resources by rationally allocating human resources, so as to enhance the overall cost efficiency. At present, the human resource cost structure of most corporations is unreasonable, so more attention should be paid to the enhancement of human resource management, and find a balance between personnel cost and personnel quality, so as to achieve the effect of reasonable cost control. While improving the skill level of workers, it can reduce operational errors and unnecessary waste, thus reducing costs (Gu 2021).

Lean management is also an important means of human resource management. The use of workers' comprehensive management with modern tools can not only realize the scientific and intelligent human resource management, but also enhance the efficiency of human resource management and reduce the management cost. By improving employee satisfaction and loyalty, reduce employee turnover rate, reduce recruitment and training costs, so as to reduce the overall cost of the cooperation (Xia 2022). Effective communication and effective teamwork can enhance work efficiency and reduce costs. By stimulating the creativity and enthusiasm of workers, we can continuously enhance the workflow and enhance the cost efficiency. in summary，there is mutual promotion and influence between human resource leverage and cost efficiency. Through the reasonable and effective use of human resource leverage, the growth can not enhance the production efficiency and quality, and can reduce the cost of human resources, and ultimately enhance the overall cost efficiency. At the same time, the enhancement of cost efficiency must rely on effective human resource management.

Table 7 shows us the correlation between Technological Capability and Cost Efficiency. And the calculated rho values range from 0.470 to 0.548, indicating a moderate direct correlation with a p-value less than the alpha level of 0.01. Therefore, the correlation value is at a moderate level, but the strength of the relationship between variables is very obvious. There is a moderate direct relationship between sub variables such as Technological Capability and Cost Efficiency. There is a correlation between the Technological Capability and Cost Efficiency.

Table 7

Relationship Between Technological Capability and Cost Efficiency

Variables	rho-value	p-value	Interpretation
Technical Expertise			
Budgeting	0. 508**	< . 001	Highly Significant
Process Standardization	0. 505**	< . 001	Highly Significant
Lean Management	0. 474**	< . 001	Highly Significant
Technological Leadership			
Budgeting	0. 472**	< . 001	Highly Significant
Process Standardization	0. 548**	< . 001	Highly Significant
Lean Management	0. 482**	< . 001	Highly Significant
Technological adjustability			
Budgeting	0. 470**	< . 001	Highly Significant
Process Standardization	0. 506**	< . 001	Highly Significant
Lean Management	0. 471**	< . 001	Highly Significant

***. Correlation is significant at the 0. 01 level*

The organization can achieve the enhancement of technical capacity through the innovation of science and technology and the adoption of advanced production technology and tools, and the enhancement of technical capacity plays a crucial role in the progress of production efficiency. The enhancement of technical capability can promote the enhancement of cost efficiency. At the same time, the enhancement of cost efficiency also depends on the progression of technical capabilities. They are closely related to each other and promote and influence each other. With the continuous progression of technology, how to keep the update of technology and adjust to the new market demand is an important problem to enhance the cost efficiency. With the intensification of market competition, how to better reduce the cost, enhance the profitability and production efficiency of corporations is an important issue. Zhou (2024) reminded that corporations should reduce production costs and inventory costs by optimizing production processes and supply chain management. Organizations can reduce the cost of quality by producing higher quality products and reducing defective and scrap rates. It can reduce marketing costs by improving customer satisfaction and loyalty, and increasing duplication of purchases and word-of-mouth communication. corporations with strong technical capabilities can enhance the efficiency and flexibility of production and management processes and reduce operating costs through technical optimization and enhancement.

Jiang (2024) believed that introducing automation and intelligent technology can realize the automation and intelligent management of the production process, which can enhance the production efficiency and accuracy, and reduce human costs and error costs. By introducing advanced cost management systems and tools, we can realize real-time monitoring and analysis of cost data, find and solve cost problems in time, and enhance the efficiency and accuracy of cost management. The production efficiency of the organization has been enhanced, which can promote the organization to carry out technological innovation, so as to enhance the technical ability. By improving production efficiency, the organization can have more funds and resources for technology research and progression and innovation and promote technological progress. High production efficiency can enhance the market competitiveness of corporations, and the competitiveness between corporations can promote them to constantly introduce new production technology and public welfare, so as to enhance their technical ability.

Development of Enhance Organizational Agility Framework

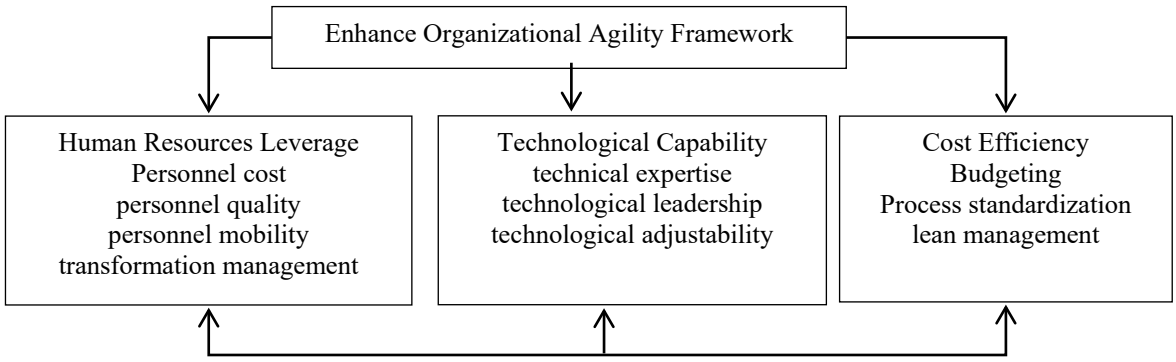

Figure 1. Framework for Enhance Organizational Agility Framework

This research constructs a progression of Enhance Organizational Agility Framework that involves three independent variables: Human Resources Leverage, Technological Capability and Cost Efficiency.

In this era of rapid technological progression, to actively and quickly adjust to the changes of the market and enhance the competitiveness and adjustability of the market, a framework for organizational agility was built. Moreover, it is a good way to enhance the competitiveness and adjustability of organizations and will also be a better tool for corporations to obtain economic benefits. Finally, this ensures that the organization thinks about the enhancement of technical capabilities from the way of human resource management, thus reducing the cost of the cooperation and creating greater benefits.

As can be gleaned from the figure below, an institution's human resource management leverage ratio, technical capabilities, and cost efficiency are required for organizational agility. The framework provides guidance for the organizational way of enhanced agility. Human resource leverage ratio is an important guarantee for the organization's commitment and good governance technology capacity and cost efficiency. Technical capabilities will also affect the enhancement of cost efficiency. In this literature study, it is emphasized that through effective human resource management, promoting the promotion of technical capabilities and cost reduction, corporations can enhance their competitiveness, better meet the market demand, and achieve long-term and sustainable success.

4. Conclusions and recommendations

Respondents generally agreed that optimizing human resource leverage, enhancing technical capabilities, and improving cost efficiency are crucial for enhancing organizational agility. Findings indicate significant positive relationships among these factors, suggesting that they mutually influence each other. Respondents agree that cost efficiency can be enhanced and unnecessary expenses can be reduced through effective budgeting, process standardization, and lean management. To foster organizational competitiveness and sustainability, a balanced approach that considers the interplay between these elements is essential. Based on the results of the study an organizational agility framework was developed.

Organizations should prioritize employee training and development to cultivate a skilled and adaptable workforce. Embracing technological advancements is crucial for improving efficiency and responsiveness. Continuous evaluation of operational costs is necessary to identify areas for reduction and optimization. Encourage creativity and experimentation to drive continuous improvement and adaptation. Collaborating with technology providers and industry peers can facilitate knowledge sharing and access to emerging trends. Regular evaluations of organizational agility and performance metrics are essential for measuring progress and

identifying areas for improvement.

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