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Research Paper

# Fostering Innovation: Exploring Key Factors and Their Relationship on Organizational Performance Towards Innovation Management Culture

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#### Abstract

Employee creativity positively impacts organizations' ability to foster innovation and influences organizational learning, as the 4.0 industry promises more innovative, sustainable, and smarter productivity. This study addresses the importance of innovation culture in the technology industry's business landscape. Despite the growing attention given to innovation culture, there is a need to explore its relationship with corporate performance. A descriptive research design with a quantitative approach using regression analysis was used. Furthermore, 398 respondents from Chinese technological enterprises were investigated. Based on these findings, the workforce in the technology sector hires people of different ages and positions. Those who belong to the supervisory level focus more on quality control and process improvement. The findings also demonstrated that innovative culture significantly impacts firm performance through its influence on factors such as organizational learning, creativity and empowerment, value orientation, and market orientation. Thus, it emphasizes the importance of aligning innovation strategies at all organizational levels and effectively allocating resources to verify how innovation stimulates innovative behavior in organizations. Organizational learning can improve the shared values and behaviors of an organization and further improve organizational performance. A strong correlation between corporate culture and organizational performance. Moreover, the more effort a company puts into building its culture and the more it achieves, the greater its advantage in financial and non-financial performance, and the higher sustainability for innovation management culture will be evident.

**Keywords** Innovation Culture, Organizational Learning, Creativity and Empowerment, Value Orientation, Market Orientation, Innovation Management Culture

#### **INTRODUCTION**

Everyone knows that the future of China's economy is dependent on innovation. As part of a country's innovation advantage, measuring organizational performance in an innovation management culture is one of the most important considerations. It encompasses multiple factors and continuous evaluation to sustain the achievement of the company's development plans.

Today, one of the hot topics is employee innovation, which is closely related to innovation management culture (Shayah & Zehou, 2020). It is management's key to foster risk-taking for its success. In fact, Baniasadi et al. (2021) proved that total innovation management, which covered significant components such as culture, organization, strategy, and the relationships among them, helped determine the success of the organization. They usually focus on how to maintain their competitiveness and keep up with fast-paced business changes.

As the core component of the enterprise culture system, the enterprise innovation culture is the key to enhancing innovation ability and comprehensive competitiveness and strengthening its competitive advantage, which has absolute advantages in promoting the improvement of enterprise management, the improvement of operation level, and the amplification of economic



benefits. Nonetheless, the performance of the company's innovation is impacted by employee behavior (Guan et al., 2019). Since the research on enterprise culture in China started late, there is a lack of relevant results, and there is even less research on the innovation culture construction of technology-based enterprises, so it has a certain theoretical significance to research innovation culture in the study. At the same time, from the development stage, the research on enterprise innovation culture in China is mostly in the initial exploration stage, and the research is mainly based on the summary and generalization of related concepts, but there are few quantitative evaluations and other related research studies (He, 2021). Thus, this study is an attempt to quantify and measure the key factors and their relationships in fostering innovation management culture, encouraging thoughtful reflection toward long-term competitiveness, and promoting innovation as the basis of innovation management culture.

#### LITERATURE REVIEW

In today's fast-paced business environment, innovation management culture needs to be prioritized by top management. As shown in the paradigm below, there are indicators that will measure organizational performance starting with organizational learning to adapt and survive in the organization. Employee creativity enhances empowerment. Also, employees' inner value impact their performance while the market orientation pays attention to the dynamic needs of consumers while hitting company targets. These values are often communicated through the company vision, mission statement, and policy manuals.



Figure 1. Conceptual Framework

#### **Understanding Innovation**

Innovation should be measured in four dimensions: number of machines, output ratio, amounts of inventions, and innovation output value (Drucker & Kayanan, 2023). In the context of business, innovation means that the enterprise must keep developing, conceiving, and offering new services and products and take responsibility for the stakeholders. The concept includes the intention of the organization to innovate the companies' strategic resources, such as creativity, empowerment, organizational learning, value orientation, and market orientation, but also involves specific features in relation to who suggests it (Naranjo-Valencia & Calderon-Hernández, 2018).

Additionally, the ultimate goal of corporate innovation culture is to promote growth, which is influenced by the external and internal environment capabilities of the company (Ding & Hun, 2016). Corporate innovation culture is influenced not only by human culture, national culture, and ethnic culture, but also by organizational culture such as unitary companies and departments, which makes the expression of corporate innovation culture more complex (Gregory et al., 2018).

This study was anchored on the theory of diffusion of innovation (DOI) by Dearing and Cox (2018). It was used to explain how an idea or product gains momentum and spreads (or diffuses) among a particular population or social system. It is important that people see the idea, behavior, or product as new or innovative, which leads to adoption. Only in this way could transmission be possible.

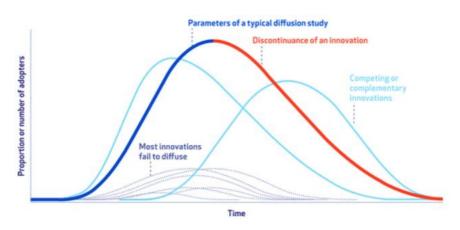


Figure 2. Diffusion of Innovation Theory (Dearing & Cox, 2018)

Adoption of new behaviors, products, or ideas in a social system did not occur immediately. It had a process in which some people adopted innovations more easily than others and had different characteristics than those who adopted them later.

## **Organizational Performance**

"Performance," from a management perspective, is an organization's desired outcome, reflecting the degree to which the organization accomplishes its mission, and includes both organizational and individual performance. There were three main definitions of organizational performance: (1) Performance was an outcome, (2) performance is the behavior of employees, and (3) Performance is employee competency (Ryu et al., 2021).

Innovation performance, on the other hand, is a comprehensive reflection of the results of technological innovation in an organization (Endrejat, 2021). From the perspective of process, it identifies the behavioral process by which the members of the firm grow continuously through the process of acquiring and sharing knowledge (Cao, 2021). Indicators were used as metrics to measure organizational performance:

## Organizational Learning

This describes the use of use learning, which enables companies to improve existing technological components based on existing knowledge and technology in the current market areas and introduce new methods into existing processes for facilitating the transformation of business results (Benner & Trushman, 2003).

## Creativity and Empowerment

By empowering employees, leaders enhance employees' sense of belonging and honor to the organization, making them psychologically grateful to the organization and giving back to the organization through performance. This is an effective strategy in which employees can make their own decisions and spark innovation (Kanake & Kemboi, 2020)

### Value Orientation

This is an important driver of radical innovation (Linder & Sperber, 2019). It is a strategic orientation that represents a firm's focus on mutually beneficial interactions and win-win collaborations between multiple faith-based participants (focal firms, customers, suppliers, and other business partners). From the viewpoint of value judgment, there are two models of value orientation in enterprises: the shareholder value orientation model and the stakeholder value orientation model (Wen, 2020). The shareholder value orientation was based on the theory of neoclassical economics, which emphasizes the centrality of shareholders in the firm". Arsawan et al. (2020) argued that one and only one social responsibility of a firm is to increase its profits, and emphasizing something other than shareholder value would distract the firm from its business objectives, leading to inefficient business practices, waste of resources, and failure to do its best to meet shareholders' expectations.

## Market Orientation

This indicator is understood as a market-oriented business operation and development model. Market orientation requires modern enterprises to base their own operation and development, carefully analyze market demand and market changes, to actively adjust the business and development model, and on this basis, gradually adapt to the development needs of the market, and ultimately improve the market competitiveness and survival and development of enterprises. The company's ability to survive and grow.

### **Innovation Management Culture**

Management culture is a subset of culture, a values associated with work and contributes to the competitiveness of the organization (Chen, 2019). I From the change of the top ten companies in the global market capitalization ranking in the past 30 years, such as Japan Mitsubishi Bank, Exxon Mobil, and other top ten global energy and financial companies before 2000, in the latest ranking in 2019 have disappeared, replaced by Apple, Amazon, Google, and other Internet giants, and without exception, all for the platform-type open enterprises.

For the hypothesis, employees should be trained in the organization, and if trained strategically, they could provide value to customers. Only continuous learning can improve skills and competencies, so the hypothesis was not valid. In addition, the four dimensions of corporate culture had a strong positive effect on organizational performance; therefore, the hypothesis is invalid.

#### **RESEARCH METHOD**

This study used a descriptive design with a quantitative method because it dealt with identifying the factors and interpreting the relationships that existed between variables. The respondents identified were employees from organizations in Beijing (with four companies), Shenzhen (with four companies), Shanghai (with four companies), and Hangzhou (with seven companies). The selection was based on cities with high innovation vitality and high innovation space enterprises in the technology sector. Overall, 398 respondents selected purposefully, informed about the purpose of the study, and asked whether they were regular employees and had been employed since 2020. The adopted questionnaire was derived from the study of Dobni (2008) and consists of 31 items on a 4-point Likert scale ranging from Strongly Agree to Strongly Disagree.

#### FINDINGS AND DISCUSSION

Innovation culture is a synthesis of the characteristics of spiritual wealth and material form created and formed in innovation and management, including internal elements such as values,

**Table 1.** Demographic Profile of Respondents
 Count Age Percentage 26-35 years old 113 28% Position Supervisory Level 198 50% Number of Years working in the organization 177 44% 6-7 years Number of Employees 76-100 employees 136 34% Total 398 100%

norms, and beliefs, as well as external elements such as culture, system, and behavior culture.

The majority of respondents were between the ages of 36 and 45, which accounted for 38%
of the total respondents. This revealed that, in terms of age, senior employees are well experienced
and have industry knowledge, whereas younger employees have fresh ideas on innovation. Parsons
(2015) revealed that age is positively associated with an employee's capitalization and
implementation of innovation output. Establishments should pay attention to their careers by
offering programs to support older employees' needs relative to creating innovation in their work.

In terms of position, the findings showed that 198 out of 398 respondents who were at supervisory level, which accounted for 50% of the total. For each position, different organizations have various viewpoints on their tasks. Based on the results, most of the respondents had worked for 6-7 years in the organization, accounting for 44% of the total respondents. The length of service is important for identifying the institutional knowledge of employees for innovation and improvement. Most of the respondents revealed that their organization has 76-100 employees, which accounted for 34% of the total respondents. Cheng (2021) showed that large-scale and performance differences, strong amateurism, division of labor, and forced homogeneity, and the correlation between organizational size, structure, and performance among different measurement indicators was less. Therefore, it can be inferred that the size and number of employees of an enterprise did not have a particularly large impact on organizational performance.

#### Problem 1: Assessment of the Innovation Culture of the Organization

**Table 2**. Assessment of the Innovation Culture of the Organization in Terms of
 Organizational Learning

Organizational learning (Dobni, 2008)	Mean	Remarks
1. Everyone in our organization is involved in learning (training)	2.382	Disagree
2. The training I undertake is related to supporting strategic	2.249	Dicagraa
initiatives as opposed to being general in nature.		Disagree
3. The training I receive is directed at helping me deliver customer	2.339	Disagree
value		Disagiee
4. There is an expectation to develop new skills, capabilities, and		
knowledge directed toward supporting innovation in this	2.415	Disagree
organization.		
5. I know what training/learning I need to engage in to support	2.379	Disagree

Organizational learning (Dobni, 2008)	Mean	Remarks
innovation		
6. Continued organizational learning is encouraged, and there is time/opportunity to improve skills and capabilities	2.354	Disagree
7. Mentorship and post-training support	2.364	Disagree
8. The management team acts as coaches and facilitators in support of training	2.344	Disagree
9. Managers possess the appropriate leadership qualities to support innovation		Disagree
10. I am empowered to apply what we have learned	2.49	Disagree
Overall Mean	2.367	Disagree

Organizational learning is important in improving employees over time through gaining experience and using that experience to create knowledge that can be transferred within the organization. In terms of assessment, the findings revealed an overall mean of 2.367, which is verbally interpreted as "Disagree". Assessments showed a negative response to the organization, which implied that the organization failed to provide necessary organizational learning for their employees. Farrell and Katz (2002) used a directed research approach to conclude that organizational learning has a direct positive effect on organizational performance. Different forms of organizational learning positively affect organizational performance (De Vrande et al., 2010). The improvement in organizational performance was not a direct result of organizational learning, but rather a mediating effect of organizational learning through innovation (Aragón et al., 2004).

 Table 3. Assessment of the Innovation Culture of Organizational Learning in Terms of Creativity

Creativity and Empowerment (Dobni, 2008)	Mean	Remarks
1. I consider myself a creative/innovative person.	2.367	Disagree
2. Innovation in our organization is more likely to succeed if employees are allowed to be unique and express this uniqueness in their daily activities.	2.151	Disagree
3. I view uncertainty as an opportunity and not as a risk	2.251	Disagree
4. This organization uses my creativity to its benefit, i.e., it uses it in a good way	2.312	Disagree
5. I am given the time/opportunity to develop our creative potential	2.229	Disagree
6. I am prepared to do things differently if given the opportunity to do so.	2.279	Disagree
Average Mean	2.265	Disagree

Employees may disengage from their duties and battle with job discontent if they do not feel empowered to make decisions or participate in particular projects, especially those that have an impact on the business' core initiatives. Conversely, in Table 3, respondents specifically disagreed in terms of considering themselves to be creative/innovative person ( $\mu$ =2.367) and that their organization used their creativity for good and for the company's benefit ( $\mu$ =2.312). Learning commitment, shared vision, and open mindedness all contribute positively to both technological

innovation performance and managerial innovation performance (Xiao & Xuan, 2022); however, it is noteworthy that one of the dimensions, learning commitment, does not play a mediating role in innovation performance.

<b>Table 4.</b> Assessment of the Innovation Culture of Organizational Learning in terms of Value
Orientation

Value Orientation (Dobni, 2008)	Mean	Remarks
1. We define value with our customers	2.553	Agree
2. In an attempt to create value, we proactively interact with others in the value chain (i.e. retailers, distributors, suppliers)	2.337	Disagree
3. There is a consensus among employees about what creates value for customers/stakeholders	2.344	Disagree
4. I actively search for new ideas and innovations at all stages of product/service development	2.44	Disagree
5. I obtain the information we must make value-added decisions	2.417	Disagree
6. I understand the systems/processes we must excel at to deliver customers/stakeholder value	2.485	Disagree
7. I have the freedom to develop appropriate responses in efforts to create value for our clients.	2.38	Disagree
Average Mean	2.422	Disagree

The respondents agreed with the statement, "We co-define value with our customers." Accounting for 2.55 highest weighted mean. This implies that employees pay much attention to their customers. Prioritizing customer value showed the important role of corporate culture and ideas in enterprise development. Organizational capital creates value. The formation of enterprise organizational capital required long-term accumulation and high resource investment, but the same resources did not necessarily produce the same effect, which indicates the uncertainty and non-replicability of organizational capital formation. Various enterprise valued assessment methods. Employee-respondents disagreed that they proactively communicated with other stakeholders in the value chain in an attempt to create value ( $\mu$ =2.337). They showed disinterest in developing their mindset and skill set and interacting with key stakeholders (internal and external) around their desired business and operational outcomes. Wu (2020) showed that entrepreneurial values are the foundation of corporate values and the core and soul of corporate culture.

Table 5. Assessment of the Innovation Culture of Organizational Learning in terms of Market

Market Orientation (Dobni, 2008)	Mean	Remarks
1. When I determine something important about a customer	2.377	Disagree
or competitor that may affect others in the organization, I		Disagiee
know what to do with that information.		
2. I have a good understanding of the value chain and have	2.264	Dicagroo
vital interests concerning our division/organization.		Disagree

Market Orientation (Dobni, 2008)	Mean	Remarks
3. We know which customers (and/or market segments) will provide the most solid foundation for future growth	2.229	Disagree
4. We have an idea of which competitors will target which set of customers	2.276	Disagree
5. We are encouraged to flush out information on what most would consider the "not so obvious" or even obscure	2.332	Disagree
6. We take time to understand our competitive environment to a point where we can anticipate industry shifts	2.354	Disagree
7. Knowledge generation is strategic in that we have a reliable and valid process that surveys stakeholders on a consistent basis and that knowledge is used to direct plans	2.402	Disagree
8. The knowledge generated allows us to create a differential advantage in the marketplace	2.3467	Disagree
Average Mean	2.323	Disagree

A good understanding of the value chain and vital interests concerning the organization ( $\mu$ =2.264) seems cleared to the respondents. This implied that employees did not perform market research to determine what consumers perceived as their immediate requirements and concerns, nor did they take a customer-centered approach to product design into consideration. A positive relationship between the degree of attention of the executive team to each stakeholder and the performance of the company should be a focal point for innovation (Lv et al., 2020).

## **Problem 2: Organizational Performance**

Table 6. Assessment of Organizational Performance				
Organizational Performance (Hogan & Coote, 2014)	Mean	Remarks		
1. The enterprise achieves client satisfaction.	2.219	Disagree		
2. The enterprise provides value to clients,	2.03	Disagree		
3. The enterprise keeps current clients	2.045	Disagree		
4 The enterprise attracts new clients	2.098	Disagree		
5. The enterprise attains the desired growth,	2.053	Disagree		
6. The enterprise secures the desired market share.	2.0603	Disagree		
Average Mean	2.0842	Disagree		

Organizational performance is the capacity of an organization to achieve its objectives and maximize results. Respondents' assessment on this area. The indicators also showed disagreement. The organization perhaps struggled to meet its goals and did not exceed the expectations of its clients and employees. The strength of the relationship between resources and performance varied

depending on how performance was assessed. Skeptics of the mutually beneficial view were concerned that the benefits of HR practices often favored the organization at the expense of employee welfare (Lu, 2022).

OL	CEA	VO	MO	
			МО	
0.596	0.607	0.566	0.564	
<.001	<.001	<.001	<.001	
Significant	Significant	Significant	Significant	
	<.001 Significant	<.001 <.001 Significant Significant	0.596         0.607           <.001	

#### Problem 3: Relationship between Innovation Culture and Organizational Performance

Note: Organizational Learning (OL); Creativity and Empowerment (CEA); Value Orientation (VO); Market Orientation (MO)

\*Significant at .05 level.

All dimensions of innovation culture have p-values less than the 0.05 level. The positive associations implied that organizational performance could be achieved through employee expertise and knowledge, empowerment, and excellent value and market orientations. Creating a culture of recognition is related to employees' needs in organizational management (Brun & Dugas, 2008).

### Problem 4: Factors affecting innovation culture affect organizational performance

performance									
H <sub>0</sub>	p value	R <sup>2</sup>	Adj. R <sup>2</sup>	Decision	Predictor	В	p value	Remarks	
					Intercept	0.8257	<.001	-	
				0L1	0.1102	0.010	Significant		
					OL2	7.79e-4	0.985	Not Significant	
OL - OP <.001 0.36				0L3	0.0142	0.751	Not Significant		
		0.368 0.351		OL4	0.022	0.614	Not Significant		
	0.368		0 351	OL5 0.118 0.005		Deiestu	0.005	Significant	
			Reject H <sub>0</sub>	Reject H <sub>0</sub>	OL6	-0.015	0.706	Not Significant	
					_	0L7	0.0829	829 0.043	Significant
					OL8	0.0969	0.021	Significant	
				0L9	0.0275	0.532	Not Significant		
				0L10	0.0707	0.085	Not Significant		

**Table 8.** Linear Regression Analysis on the effect of organizational learning on organizational

\*Significant at .05 level.

The regression analysis of organizational learning affecting organizational performance is presented in Table 8. The effect of organizational learning on performance was deemed significant, rejecting the null hypothesis. This implied that employee training and management support significantly affected employee performance and the organization in general. For an organization to grow and succeed, training is a crucial instrument to improve the performance of every employee (Yu, 2019).

Data further revealed significance along predictors OL1 ( $\beta = 0.1102$ ; p = 0.010), OL5 ( $\beta = 0.118$ ; p = 0.005), OL7 ( $\beta = 0.0829$ ; p = 0.043), and OL8 ( $\beta = 0.0969$ ; p = 0.021). While OL2 ( $\beta = 0.7.79e-4$ ; p = 0.985), OL3 ( $\beta = 0.0142$ ; p = 0.751), OL4 ( $\beta = 0.022$ ; p = 0.614), OL6 ( $\beta = -0.15$ ; p = 0.706), OL9 ( $\beta = 0.0275$ ; p = 0.532), and OL10 ( $\beta = 0.0707$ ; p = 0.085) were deemed insignificant, as shown in the table above. This implied that employee training and management support significantly affected employee performance and the organization in general. For an organization to grow and succeed, training is a crucial instrument that must be used to improve the performance of every employee. Employees function when they receive sufficient support from the organization toward the development of their personal and professional skill set. Hermawati et al. (2022) analyzed the relationship between three stocks (individual-level, team-level, and organization-level) and two flows (feedforward and feedback) of organizational learning and organizational performance, showing that the three stocks of organizational learning had a positive effect on organizational performance, whereas the two flows had a negative effect.

H <sub>0</sub>	p value	R <sup>2</sup>	Adj. R <sup>2</sup>	Decision	Predictor	В	p value	Remarks		
					Intercept	0.94892	<.001	-		
					CEA1	0.0386	0.944	Not Significant		
							CEA2	0.1779	<.001	Significant
CEA - OP	<.001	0.506	0.501	Reject Ho	CEA3	0.0630	0.107	Not Significant		
01					CEA4	0.1177	0.002	Significant		
					CEA5	0.1652	0.1652 <.001	Significant		
					CEA6	-0.0156	0.697	Not Significant		

Table 9. Linear regression analysis of the effect of creativity on organizational performance	ce

\*Significant at .05 level.

Creativity has a significant relationship with organizational performance. When employees were given the opportunity and time to develop their creativity and uniqueness, organizational performance was achieved. self-efficacy, self-work, and job meaning were related to job performance (Pironti et al., 2019).

Table 10. Linear regression analysis of the effects	of value orientation on Organizational
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				Performan	ce		
p value	R <sup>2</sup>	Adj. R <sup>2</sup>	Decision	Predictor	В	p value	Remarks
				Intercept	1.0191	<.001	-
				V01	0.0498	0.218	Not Significant
				V02	0.0927	0.031	Significant
				V03	0.1004	0.013	Significant
<.001	0.330	0.318	Reject H <sub>0</sub>	V04	0.0442	0.267	Not Significant
				V05	0.0615	0.132	Not Significant
				V06	0.0732	0.081	Significant
				V07	0.0201	0.630	Not Significant

The evaluation of the effect of value orientation showed a significance adjusted R<sup>2</sup> of 0.330 and p-value = <0.001, which meant that the organizational performance could be predicted by 33% of Value Orientation and deemed significant. Regression analysis further revealed significance along predictor on VO2 ( $\beta$ =0.0927; p=0.031), VO3 ( $\beta$  = 0.1004; p=0.013), and VO6 ( $\beta$  = 0.0732; p=0.081). On the other hand, VO1 ( $\beta$ = 0.00498; p=0.218), VO4 ( $\beta$  = 0.0442; p=0.267), VO5 ( $\beta$  = 0.0615; p=0.132), and VO7 ( $\beta$  = 0.0201; p = 0.630) were found to be insignificant. Results implicitly suggested the importance of the value chain in the organization. Proactive engagement of employees, organizational consensus, and understanding of the system were important factors for the organization. Proactive engagement of employees, organizational consensus, and understanding of the success of the organization. Results implicitly suggested the importance of the value simplicitly suggested the importance of the value of employees, organizational consensus, and understanding of the system were important factors for the organization. Proactive engagement of employees, organizational consensus, and understanding of the success of the organization. Results implicitly suggested the importance of the value chain in the organizational consensus, and understanding of the system were important factors for the success of the organization. Proactive engagement of employees, organizational consensus, and understanding of the system were important factors for the success of the organization. market orientation was only concerned with the way of acting.

H <sub>0</sub>	p value	R <sup>2</sup>	Adj. R <sup>2</sup>	Decision	Predictor	В	p value	Remarks						
					Intercept	0.9608	<.001							
					M01 0.0605 0.12	0.121	Not Significant							
					M02	M020.01910.637M030.06170.155	0.637	Not Significant						
МО					M03		0.155	Not Significant						
MO - OP <.001	<.001	0.332	0.318	18         Reject H <sub>0</sub> MO4         0.0480           MO5         0.0859           MO6         0.0231	Reject H <sub>0</sub>	Reject H <sub>0</sub>	Reject H <sub>0</sub>	Reject H <sub>0</sub>	Reject H <sub>0</sub>	Reject H <sub>0</sub>	M04	0.0480	0.262	Not Significant
01					0.045	Significant								
					M06	0.0231	0.580	Not Significant						
					M07	0.0443	0.296	Not Significant						
					M08	0.1399	<.001	Significant						

**Table 11**. Linear regression analysis of the effects of market orientation on

 Organizational Performance

A positive association with an adjusted R<sup>2</sup> value of 0.332 and p-value of <0.001, revealed that the organizational performance could be predicted by 33.2% of market orientation. From the indicators of market orientation, only MO5 ( $\beta$  = 0.0859; p = 0.045) and MO8 ( $\beta$  = 0.1399; p = <0.001) had significant relationship. It was clear that smaller companies placed relatively more emphasis on market orientation. They had a simpler organizational structure and a more unified corporate culture. As a result, market orientation has a greater impact on innovation (Alhakimi & Mahmoud, 2020).

## Problem 5: Effects of Innovation Culture on Organizational Performance

Table 12. Linear regression	nalysis of the effects of innovation culture or	1

H <sub>0</sub>	p value	R <sup>2</sup>	Adj. R <sup>2</sup>	Predictor	В	p value	Remark
				Intercept	0.363	<.001	
IC -	<.001		0.501 OL 0.240 <.001	<.001	Significant		
OPP	<.001	0.506	0.301	CEA	0.227	<.001	Significant
			-	VO	0.119	0.002	Significant

H <sub>0</sub>	p value	R <sup>2</sup>	Adj. R <sup>2</sup>	Predictor	В	p value	Remark
				MO	0.151	0.041	Significant

Table 12 shows the overall evaluation of the effects of innovation culture on organizational performance. With an adjusted  $R^2$  of 0.506 and a p-value of <0.001, it showed significant relationship between the two constructs was observed. This implied that 50.6% of the total variation in organizational performance toward overall innovation culture was significant. Thus, the study rejected the null hypothesis.

Looking at the overall associations of dependent constructs, data further showed significant p-values for Organizational Learning ( $\beta = 0.240$ ; p = <0.001), Creativity ( $\beta = 0.227$ ; p = <0.001), Value Orientation ( $\beta = 0.119$ ; p = 0.002), and Market Orientation ( $\beta = 0.151$ ; p = 0.041). Therefore, all constructs were predictors of organizational performance. These results implied that employees' learning and experiences along with creativity and empowerment induced by the organization significantly help the organization perform at its best. Moreover, when employees and the organization in general valued stakeholders and clients, they could attain growth and success. Finally, if the organization, through its skilled and knowledgeable employees, carefully examined, studied, and understood the market, the organization would effectively and efficiently reach its goal.

These facts verified that corporate culture and organizational performance had a strong correlation. In other words, the more effort a company puts into building its culture and the more it achieves, the greater its advantage in financial and non-financial performance appraisals. Hoeft (2022) found that firms with a long history of corporate culture development had a significant performance advantage over firms that lacked corporate culture characteristics, and that there was a positive correlation between corporate culture and firm performance. Xu and Yang (2022) researched 112 questionnaires and found that two dimensions of corporate culture, "flexibility" and "external focus", were significantly and positively correlated with corporate performance. There was an inverse correlation between the dimensions of "stability" and "Internal focus" and corporate Employees' learning and experiences along with creativity and empowerment induced by the organization significantly help the organization to perform at its best. The organization's innovative efforts were also impacted by internal quality control as well (Li et al., 2019).

## CONCLUSIONS

Empowered employees enhance organizational learning by recognizing a greater sense of responsibility at work, thus impacting the business's ability to learn and innovate. Employee creativity positively impacts the organization's ability to foster innovation and influences organizational learning.

It is evident that market-oriented employees are more flexible to changing market conditions and dynamic plans in the organization, allowing them to overcome challenges successfully. Employee empowerment is an important aspect of value orientation in an innovation culture. Sustainable value for customers is at the top of the minds of employees in organizational learning toward innovation culture. Customer satisfaction is the most important and critical aspect of organizational performance. Customer satisfaction is an indicator that can significantly affect the success and sustainability of a business. Overall, companies that emphasize customer satisfaction will achieve sustainable and long-term success in their respective industries.

Employee training and management support significantly affect the performance of the employee and the organization. For an organization to grow and succeed, training is a crucial instrument that must be used to improve the performance of every employee. When employees are

given the opportunity and time to develop their creativity and uniqueness, organizational performance can be achieved. Organizational learning can improve the shared values and behaviors of an organization and further improve organizational performance.

Overall, there is a strong correlation between corporate culture and organizational performance. The more effort a company puts into building its culture and the more it achieves, the greater its advantage in financial and non-financial performance appraisals. Therefore, the role of innovation culture as a cultural type in promoting firm performance is the key to growth. It is a necessity for management innovation culture.

#### LIMITATION & FURTHER RESEARCH

The participants of the study are limited to regular employees who were hired from 2020 to present in the technology sector in four cities in China. Although this study provides meaningful insights for management and employees, future research is recommended that focuses on the analysis of the relationship between whether innovation culture has a direct role in influencing organizational performance or as a medium that has an indirect effect on organizational performance.

#### REFERENCES

- Alhakimi, W. & Mahmoud M. (2020). The Impact of Market Orientation on Innovativeness: Evidence from Yemeni SMEs. *Asia Pacific Journal of Innovation and Entrepreneurship*, *14*(1), 47-59. https://doi.org/10.1108/APJIE-08-2019-0060.
- Aragón-Correa, J. A., Matías-Reche, F., & Senise-Barrio, M. E. (2004). Managerial discretion and corporate commitment to the natural environment. *Journal of Business Research*, 57(9), 964-975. https://doi.org/10.1016/S0148-2963(02)00500-3.
- Arsawan, I. W. E., Koval, V., Rajiani, I., Rustiarini, N. W., Supartha, W. G. & Suryantini, N. P. S. (2022), Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage. *International Journal of Productivity and Performance Management*, 71(2), 405-428. https://doi.org/10.1108/IJPPM-04-2020-0192
- Baniasadi, N., Samari, D., Hosseini, S. J. F., & Najafabadi, M. O. (2021) Strategic study of total innovation management and its relationship with marketing capabilities in palm conversion and complementary industries. *Journal in Innovation and Entrepreneurship*, 10(46). https://doi.org/10.1186/s13731-021-00179-z.
- Benner M. J. & Tushman M. (2003). Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited. Academy of Management Review, 28(2), 238-256. https://doi.org/10.2307/30040711.
- Brun, J-P. & Dugas, N. (2008) An analysis of employee recognition: Perspectives on human resources practices. *The International Journal of Human Resource Management, 19*(4), 716–730. https://doi.org/10.1080/09585190801953723
- Cao, L. (2021). Research on the current situation and countermeasures of intellectual property protection in science and technology innovative enterprises. *Science and Technology Innovation and Application*, *11*(19), 42-46
- Chen Y., Viardot, E. & Brem, A. (2019). *Innovation and innovation management*. Routledge. http://dx.doi.org/10.4324/9781315276670-1
- Cheng, W. (2021). *Research on innovative thinking and the development of innovative society in China* [Master's thesis, Harbin Normal University]. https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202102&filename=1021594 533.nh
- De Vrande, V., Vanhaverbeke, W., & Gassmann, W. (2010). Broadening the scope of open innovation:

introduction to the special issue. *International Journal of Technology Management,* 52(3/4): 221-235.

- Dearing, J. W. & Cox, J. G. (2018). Diffusion of Innovations Theory, Principles and Practice. *Health Affairs*, *37*(2). https://doi.org/10.1377/hlthaff.2017.1104
- Ding, G. & Hun, L. (2016) How job characteristics affect employee innovation behavior : a mediated moderation model. *China Human Resource Development*, (22), 19-27.
- Dobni, C. B. (2008). Measuring Innovation Culture in Organizations: The Development and Validation of a Generalized Innovation Culture Construct Using Exploratory Factor Analysis. *European Journal of Innovation Management, 11*(4), 539-559. https://doi.org/10.1108/14601060810911156.
- Drucker, J., & Kayanan, C. M. (2024). Innovation Districts: Assessing Their Potential as a Strategy for Urban Economic Development. *Urban Affairs Review, 60*(3), 802-834. https://doi.org/10.1177/10780874231173618
- Endrejat, O. C. (2021). When to challenge employees' comfort zones? The interplay between culture fit, innovation culture and supervisors' intellectual stimulation. *Leadership & Organization Development Journal*, *42*(7), 1104-1118. https://doi.org/10.1108/LODJ-07-2020-0307
- Farrell, J. & Katz, M. L. (2002), Innovation, Rent Extraction, and Integration in Systems Markets. *The Journal of Industrial Economics*, *48*(4), 413-432. https://doi.org/10.1111/1467-6451.00131.
- Gregory, J., Satterfield, R. K., & Puckey, B. (2018). Does a culture of innovation drive business results?. *Journal of Cultural Marketing Strategy*, *3*(1), 82-89.
- Guan, H., Zhang, Z., Zhao, A., Jia, J., & Guan, S. (2019). Research on Innovation Behavior and Performance of New Generation Entrepreneur Based on Grounded Theory. *Sustainability*, 11(10), 2883. https://doi.org/10.3390/su11102883
- He, K. (2021). The influence mechanism of inclusive leadership on employees' innovative proactive behavior: a moderated dual-mediation model. *Science and Technology Progress and Countermeasures*, (21), 126-132.
- Hermawati, A., Anam, C., Suwarta, S., & Puspitosarie, E. (2022) Reconstruction of Spiritual Marketing, Culture of Innovation, Quality of Work Life, and Retainers for Tourism Industry SMEs in East Java. *Administrative Sciences*, 12(4), 152. https://doi.org/10.3390/admsci12040152.
- Hoeft, F. (2022). Auto makers and radical innovation: culture, capital and talent form road blocks. *Journal of Business Strategy*, *43*(4), 210-221. https://doi.org/10.1108/JBS-11-2020-0261
- Hogan, S. J. & Coote, L. V. (2014) Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, 67(8), 1609-1621. https://doi.org/10.1016/j.jbusres.2013.09.007.
- Kanake, M. K. & Kemboi, A. (2020) Employee Empowerment and Innovative Work Behavior: The Moderating Role of Leader-Member Exchange. SEISENSE Journal of Management, 3(5). https://doi.org/10.33215/sjom.v3i5.421
- Li, P., Shu, W., Tang, Q., & Zheng, Y. (2019). Internal control and corporate innovation: evidence from China. *Asia-Pacific Journal of Accounting & Economics, 26*(5), 622–642. https://doi.org/10.1080/16081625.2017.1370380
- Linder, C. & Sperber, S. (2019). Towards a deeper understanding of the emergence of process innovations: which role do inter-organizational learning and internal knowledge exploitation play?. *Journal of Engineering and Technology Management, 53*(July-September 2019), 33-48. https://doi.org/10.1016/j.jengtecman.2019.04.001.
- Lu, J. (2022). A study on the mechanism of the influence of enterprise-union relationship on employees' innovative behavior [Master's thesis, Nanjing University of Posts and Telecommunications]
- Lv, H., Wu, L., & Zhao, X. (2020). Formal and informal management control matching: Model

comparison and evolutionary patterns. *Forecasting*, (01), 17-25.

- Naranjo-Valencia, J. C. & Calderon-Hernández, G. (2018). Model of Culture for Innovation. In J. Vveinhardt (Eds.). *Organizational Culture*. https://doi.org/10.5772/intechopen.81002.
- Parsons, R. A. (2015). The Impact of Age on Innovation. *Management Research Review*, *38*(4), 404-420. http://dx.doi.org/10.1108/MRR-10-2013-0241.
- Pironti, M., Remondino M., & Pisano, P. (2019). Enterprise clusters triggered by radical innovation: a modelistic approach. *EuroMed Journal of Business*, *5*(2), 232-251.
- Ryu, J-m., Park, S., Park, Y., Park, J., & Lee, M. (2021). Innovative Culture and Firm Performance of Medical Device Companies: Mediating Effects of Investment in Education and Training. *International Journal of Environmental Research and Public Health*, 18(17), 8926. https://doi.org/10.3390/ijerph18178926
- Shayah, M. H. & Zehou, S. (2019), Organizational culture and innovation: A literature review. *Proceedings of the 2019 3rd International Conference on Education, Culture and Social Development (ICECSD 2019).* https://doi.org/10.2991/icecsd-19.2019.58.
- Wen, S. (2020). Research on enterprise performance evaluation based on sustainable development. *Beijing: Economic Science Press,* (12): 136-137
- Wu, H. (2020). Research on the influencing factors of corporate innovation culture [Master's thesis,AnhuiUniversityofFinanceandEconomics].https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202101&filename=1021523364.nh
- Xiao, H. & Xuan, P. (2021). The Impact of Organizational Innovation Atmosphere on Employee's innovative Behavior: Knowledge Sharing as the Intermediary. *2021 2nd International Conference on Economics, Education and Social Research*, 729-740
- Xu, F. & Yang, C. (2022). Innovation architecture and innovation performance within enterprise<br/>groups. Economic Management, (08), 95-115.<br/>https://doi.org/10.19616/j.cnki.bmj.2022.08.006
- Yu H. (2019). Empirical study on organizational learning and its mechanism. *Journal of Management Sciences in China*,10(1), 41-52.