




# The relationship between organizational learning and innovation capability in the Vietnamese banking sector

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## ABSTRACT

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Shared vision.

This study investigates the influence of organizational learning on the innovation capability of commercial banks in Vietnam. Its aim is to identify the nature of the relationship between these constructs and empirically examine whether organizational learning practices impact banks' innovation capabilities. This research uses in-depth interviews with a large-scale survey administered to employees across various Vietnamese commercial banks employing a mixed-methods approach. Data collection primarily relied on questionnaires with 280 valid responses to explore the direct and indirect effects of organizational learning on innovation capability. Quantitative analysis and structural equation modeling (SEM) were conducted using Smart-PLS software to assess scale reliability, test hypotheses and analyze the collected data. The findings confirm a direct and positive relationship between organizational learning and bank innovation capability. Three factors such as commitment to learning, shared vision and open-mindedness were found to exert significant positive influences on the bank's product and process innovation. However, intra-organizational knowledge sharing exhibited a significant and positive impact only on process innovation with an insignificant effect on product innovation. This finding concerning the limited influence of knowledge sharing on product innovation represents a critical discovery, warranting further investigation into the underlying reasons. It potentially highlights the need for a nuanced understanding of open innovation within the context of commercial banking.

**Contribution/Originality:** This study is an attempt to examine how the theory of resource-based view, knowledge-based view and organizational learning can be applied by the Vietnamese banking industry. These findings add to the existing literature on how developing organizational learning, sharing vision and open-mindedness can enhance the innovative capacity of Vietnamese commercials.

## 1. INTRODUCTION

The rise of the knowledge economy has heightened global competition and substantial technological advancements have made innovation a progressively pivotal factor in maintaining competitiveness. Innovation serves as the means through which banks generate novel products, processes and systems necessary to adapt to evolving markets, technologies and modes of competition (Khalifaturofi'ah, 2023). Innovation capability is one of the attractive areas that need to be studied by researchers to define, categorize and investigate its performance (Mendoza-Silva, 2021).

Knowledge is an important resource for the organization to help them adapt to rapid changes in the environment based on the theories knowledge management and resource management. Organizations need to learn

from experience to recognize and overcome mistakes, recognize potential risks, have solutions to overcome risks and constantly innovate to adapt and gain an advantage in competition to carry out this task. Organizational learning is the key to delivering innovative solutions, breakthrough products and efficient processes requiring the ability to see the world from a new perspective and act (Alerasoul, Afeltra, Hakala, Minelli, & Strozzi, 2022). Organizational learning reflects the effort to create knowledge for the organization. It is a systematic method to apply this knowledge creating an advantage that is difficult to replicate for the organization and creating sustainability (Ha & Linh, 2022). The learning capacity of each organization will determine the ability to update and transfer new knowledge and apply this knowledge to develop new products and processes to achieve a competitive advantage with high competence. According to Ha (2023) organizational culture has a positive effect on the bank's innovation and bank's performance especially learning culture. Therefore, learning capabilities are the foundations that help innovative organizations adapt to changes in the environment improve themselves from internal experiences and learn from the outside to operate more effectively.

The influence of organizational learning on a bank's capacity for innovation has not been thoroughly studied although several studies on organizational learning and innovation have been carried out in the industrial sector. This presents a notable gap in the literature regarding the relationship between organizational learning and innovation capability in banking. When a bank aims to become a learning organization, will it enhance its innovation capacity? How to promote innovation capacity in this aspect? Therefore, the research questions this paper aims to answer is: Which components of a learning organization have an impact on a bank's product innovation capacity and process innovation capacity? Consequently, the findings and methodology of this study are poised to contribute to the existing literature and offer insights that may guide future research.

The subsequent section outlines the conceptual framework and puts forth a series of hypotheses to test. Subsequently, the study's methodologies are introduced, providing details about the sample, study measures, data analysis and test outcomes. After an examination of the results, implications and limitations are presented for consideration.

## 2. LITERATURE REVIEW

### 2.1. Resource-Based View and Knowledge-Based View Theories

The theoretical frameworks of the Resource-Based View (RBV) and Knowledge-Based View (KBV) offer comprehensive perspectives in organizational analysis. The RBV which has its roots in Penrose (1959) asserts that businesses have resources, some of which provide them with an advantage and some of which as Wernerfelt (1984) explains lead to improved long-term performance. The RBV systematically approaches firm-level analysis by conceptualizing the firm as an amalgamation of resources and capabilities rather than merely a collection of product market positions (Wernerfelt, 1984). Organizational renewal is facilitated through the development and utilization of resources and capabilities illustrating a crucial mechanism for continual innovation in both the organization and its products within the RBV framework. The integration of innovation capability within this framework harmonizes the efficiency of established practices with the creative potential of emerging strategies facilitated by leveraging the organizational knowledge base as highlighted by Le and Lei (2019).

Grant (1996) extends the RBV with the Knowledge-Based View Theory (KBV) emphasizing knowledge as the paramount source of innovation, enhanced performance and competitiveness. According to Farzaneh, Ghasemzadeh, Nazari, and Mehralian (2020) this theory as a vital perspective on organizational learning underscores the imperative for firms to transform into learning organizations, maximizing their knowledge base to attain a competitive advantage through sustained and innovative performance. In their review research, Pereira and Bamel (2021) assert that these theoretical frameworks have garnered significant attention and application.

In the context of this study, the RBV and KBV theories serve as foundational frameworks to elucidate the mechanisms by which organizational learning manifested through internal firm resources contributes to the

innovation capability of banks. This exploration focuses on understanding how organizational learning as reflected in a bank's internal resources plays a pivotal role in shaping bank innovation capabilities, thereby influencing the overall competitiveness of financial institutions.

### *2.2. Organizational Learning*

Organizational learning encompasses endeavors to generate organizational knowledge and formulate methodologies to practically manage this knowledge. It is defined as a firm's capability to recognize and rectify errors (Argote, 2012). The belief is that organizational knowledge and the processes fostering its creation confer an advantage upon the firm serving as a sustainable and difficult-to-replicate resource in a business environment where technologies and products are readily copied and reproduced (Obeso, Hernández-Linares, López-Fernández, & Serrano-Bedia, 2020).

Organizational learning guides a firm's actions and processes in acquiring diverse information establishing a shared understanding of the information acquired and generating new knowledge (Rehman, Bhatti, & Chaudhry, 2019). It is the process encompassing the acquisition, assimilation, sharing, modification and transfer of knowledge within an entity (Vashdi, Levitats, & Grimland, 2019). In the context of this study, organizational learning serves as a mechanism for exploring novel ways to enhance operations by acquiring, absorbing, sharing and transferring knowledge leading to improved performance. It necessitates a higher level of commitment to learning, open-mindedness and shared vision.

Organizational learning involves the development of internal knowledge capabilities that incorporate external knowledge from other entities both within and outside the sector. The interpretation stage involves the creation of new knowledge through the utilization of existing knowledge across all levels expanding the application scope and enhancing the organization's learning capacity. Intra-organizational knowledge sharing contributes to the accumulation, sharing and reuse of knowledge, thereby augmenting employee knowledge based on shared experiences that serve as the foundation for development. This proves advantageous for the organization, fostering continuous improvement, adaptability and value addition (Vashdi et al., 2019).

### *2.3. Innovation Capability*

In the literature, diverse interpretations of the innovation concept exist among various authors although some of these definitions share commonalities.

Innovation is generally described as the introduction of a novel or significantly enhanced product (goods or services), process, marketing approach or organizational structure within intra-organizational practices or external engagements. According to Drucker (1985) innovation involves the conversion of knowledge into economic and social benefits.

Innovation capability is articulated as the aptitude and expertise necessary for the efficient assimilation, mastery and enhancement of existing technologies as well as the creation of novel ones (Najafi-Tavani, Najafi-Tavani, Naudé, Oghazi, & Zeynaloo, 2018).

Pioneering innovators actively promote, anticipate and recognize innovation from all corners of the organization not limited to research and development. They emphasize the integration of organizational learning and knowledge with products, processes, technologies and core capabilities.

In essence, an innovation capability is described as an aptitude to consistently convert knowledge and concepts into new products, procedures and systems to enhance the firm and cater to its stakeholders. It goes beyond merely excelling in operating a business new stream or overseeing mainstream capabilities. Instead, it involves the integration of these two operational paradigms.

#### 2.4. The Relationship between Organizational Learning and Innovation Capability

Scholars have determined that the establishment of new knowledge through organizational learning is essential for enhancing both firm innovation capability and overall performance (Lin, 2007). Innovation involves the creation, acceptance and implementation of novel ideas, processes, products or services.

Organizational learning forms the foundation for acquiring knowledge related to potential innovation and transforming it into actual innovation. Quick-learning firms can identify ways to enhance business processes and rapidly develop revolutionary innovations giving them a competitive advantage over slower-learning organizations (Farrukh & Waheed, 2015). An organization dedicated to continuous learning is likely to have cutting-edge technology, thereby fostering greater innovation capability in both products and processes. Organizational learning is intricately connected to organizational innovation (Soomro, Mangi, & Shah, 2021).

Organizational learning can enhance its ability to innovate in one of three ways: First, with a commitment to learning to innovate, take modern technology and use that technology in innovations from which it is more likely to build and bring to market technological breakthroughs.

Second, the organization is able to meet emerging market needs through open-mindedness because it has the information to understand and anticipate customer needs and propose appropriate core value benefits for forming new products that must reflect the value expected by customers, improving the organization's capacity to innovate products. Third, a learning organization can innovate because it shares its knowledge and vision to learn from its mistakes or successes to do better (Kiziloglu, 2015).

Therefore

*Hypothesis 1: A positive relationship exists between "commitment to learning" and the innovation capability of banks.*

*Hypothesis 1.1: A positive relationship exists between "commitment to learning" and innovation capability in terms of bank product development.*

*Hypothesis 1.2: A positive relationship exists between "commitment to learning" and innovation capability in terms of bank process improvement.*

*Hypothesis 2: There is a positive relationship between "shared vision" and the innovation capability of banks.*

*Hypothesis 2.1: A positive relationship exists between "shared vision" and innovation capability in terms of bank product innovation.*

*Hypothesis 2.2: A positive relationship exists between "shared vision" and innovation capability in terms of bank process innovation.*

*Hypothesis 3: A positive relationship is evident between "open-mindedness" and the innovation capability of banks.*

*Hypothesis 3.1: A positive relationship exists between "open-mindedness" and the innovation capability concerning bank product development.*

*Hypothesis 3.2: A positive relationship exists between "open-mindedness" and the innovation capability concerning bank process improvement.*

*Hypothesis 4: A positive relationship exists between "intra-organizational knowledge sharing" and the innovation capability of banks.*

*Hypothesis 4.1: A positive relationship is present between "intra-organizational knowledge sharing" and innovation capability in terms of bank product innovation.*

*Hypothesis 4.2: A positive relationship is present between "intra-organizational knowledge sharing" and innovation capability in terms of bank process innovation.*

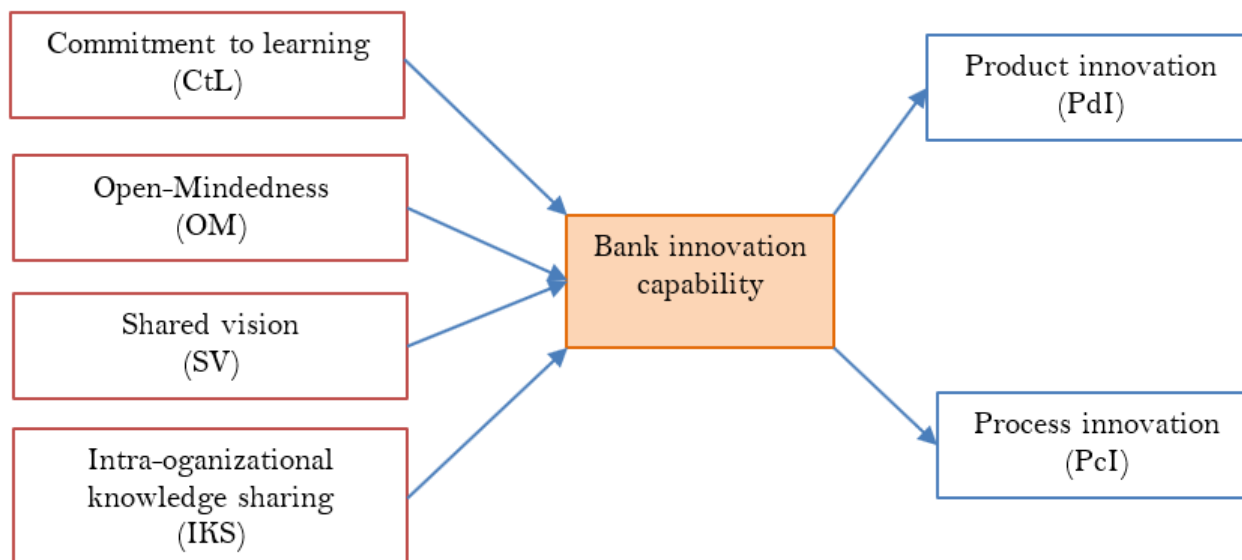


Figure 1. The conceptual model.

Figure 1 illustrates the proposed model that examines the impact of four factors on the bank's innovation capacity including commitment to learning, shared vision, open-mindedness and intra-organizational knowledge sharing. Innovation capacity is considered to be less than two aspects product innovation and process innovation.

### 3. METHOD

#### 3.1. Samples and Procedure

The directory of the bank was used as the sampling frame for this study. A total of 18 banks were randomly chosen from a list of commercial in Vietnam including 15 banks from the private banking sector and 5 from government banking. The banks involved in this study have between 11 and 59 years of experience. In the group of private commercial banks, there are 46.15% small-sized banks, 46.15% medium-sized banks, and 7.69% large-scale banks. For the group of state-owned commercial banks, most of them are large-scale banks accounting for 80% and 20% are small-sized banks. The above sample structure ensures the balance and diversity of commercial banks in Vietnam. These sample features provide industry representativeness and serve as the foundation for insightful evaluation. Empirical data were gathered from 280 respondents through a Google Form survey conducted over three months in 2021 spanning from May to August. The survey questionnaire was distributed to both managers and employees. The majority of them had accumulated over three years of experience working at their respective banks. This tenure ensured a comprehensive understanding of the organization's past and present practices related to innovation. More than 70% of the research sample comprised members with a minimum of three years of experience with the bank with 30.2% having worked for over 10 years, 22.1% for 6 to 10 years and 16% representing the remaining portion of the research sample. This extensive experience contributes significantly to the data quality obtained from the survey as respondents possess a thorough understanding of their bank's activities.

The proposed conceptual model was employed to empirically analyze the data using the partial least squares structural equation modeling (PLS-SEM) technique with Smart-PLS version 3 software used for data coding and statistical analysis. The structural equation model's analysis with a partial least square is suitable for testing variable relationships. Structural equation modeling can be approached through covariance-based methods and variance-based methods. According to Cho and Choi (2020) the chosen method was partial least squares (PLS), a variance-based method. PLS imposes less restrictive assumptions about normality is adaptable to small samples, and is well-suited for predictive applications and theory building (Hair, Risher, Sarstedt, & Ringle, 2019).

To ensure model fitness, the measurement incorporates outer loading, composite reliability, Cronbach alpha, Average Variance (AVE), and the Fornell-Larcker criterion. For the structural model, R-square is employed to assess predictive power. The proposed relationships were tested to examine the structural model which is illustrated in Figure 2. Additionally, the bootstrapping method applied to 1,000 subsamples was used to evaluate the significance of path coefficients following the suggestion of Hair, Hult, Ringle, and Sarstedt (2017). The analysis output model data is presented in Table 3.

### 3.2. Measures

Learning orientation is composed of four factors: commitment to learning, shared vision, open-mindedness and intra-organizational knowledge sharing based on the literature. Commitment to learning and shared vision were measured (Sinkula, Baker, & Noordewier, 1997). Open-mindedness and intra-organizational knowledge sharing were measured by items from Hult and Ferrell (1997). This paper proposes the concept of innovation capability based on performance. Therefore, we limited the focus on product innovation and process innovation to the measurement of innovation capability in banking sectors. Respondents were answered by using a 5-point scale (1- strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree and 5 – strongly agree).

## 4. RESULTS

### 4.1. Results of the Measurement Model

It is imperative to meet the criteria for convergent validity and discriminant validity in the assessment of the measurement model. Reflective measured models' outer loadings, average variance extracted (AVE), composite reliabilities and Cronbach's alpha were evaluated to ensure convergent validity. The results of the convergent validity assessment are presented in Table 1.

Table 1. Scales construct validity.

Construct	Item	Scale	Outer loading	Average variance	Composite reliability	Cronbach's alpha
CtL	CtL1	Reflective	0.865	0.714	0.909	0.866
	CtL2	Reflective	0.871			
	CtL3	Reflective	0.814			
	CtL4	Reflective	0.829			
IKS	IKS1	Reflective	0.821	0.755	0.939	0.919
	IKS2	Reflective	0.898			
	IKS3	Reflective	0.886			
	IKS4	Reflective	0.869			
	IKS5	Reflective	0.869			
OM	OM1	Reflective	0.817	0.705	0.905	0.860
	OM2	Reflective	0.812			
	OM3	Reflective	0.858			
	OM4	Reflective	0.869			
SV	SV1	Reflective	0.887	0.804	0.925	0.878
	SV2	Reflective	0.902			
	SV3	Reflective	0.900			
PcI	PcI1	Reflective	0.899	0.817	0.964	0.955
	PcI2	Reflective	0.895			
	PcI3	Reflective	0.917			
	PcI4	Reflective	0.910			
	PcI5	Reflective	0.921			
	PcI6	Reflective	0.881			
PdI	PdI1	Reflective	0.898	0.793	0.950	0.934
	PdI2	Reflective	0.817			
	PdI3	Reflective	0.900			
	PdI4	Reflective	0.917			
	PdI5	Reflective	0.918			

The findings indicate that all constructs exhibit outer loadings ranging from 0.812 to 0.921 surpassing the recommended threshold of 0.70. The obtained coefficient alphas range from 0.860 to 0.955 exceeding the minimum acceptable values and indicating strong internal consistency for each latent construct (Hair et al., 2017). Furthermore, the composite reliabilities (CR) for all constructs exceed the designated threshold, confirming their reliability (Clark & Watson, 2019). The AVE values ranging from 0.705 to 0.817 also support convergent validity as they surpass the 0.50 benchmark (Bagozzi, 1981). These results collectively provide substantial evidence of construct validity for all the variables considered in this study.

The second phase of evaluating the measurement model involves assessing discriminant validity employing the Fornell-Larcker criterion (Fornell & Larcker, 1981). This criterion stipulates that the squared AVE value should exceed the correlation coefficient between the focal construct and any other construct. In other words, the square root value of the AVE for a specific construct should be greater than the correlation coefficient between that construct and other latent variables. Consequently, when this condition is met, it can be inferred that discriminant validity has been established. The outcomes of the discriminant validity test are detailed in Table 2.

Table 2. Discriminant validity of reflective constructs.

Construct	CtL	IKS	OM	SV	PcI	PdI
CtL	0.845					
IKS	0.707	0.869				
OM	0.720	0.782	0.839			
SV	0.706	0.760	0.717	0.897		
PcI	0.615	0.666	0.656	0.628	0.904	
PdI	0.626	0.653	0.645	0.642	0.890	0.891

Note: Fornell-Larcker criterion.  
 Commitment to learning (CtL), Intra-organizational knowledge sharing(IKS), Open-mindedness (OM), Shared vision (SV), Process innovation (PcI) and Product innovation (PdI).

4.2. Results of the Structural Model

We used a structural equation model to evaluate the variation in endogenous variables such as bank and organizational learning to analyze bank innovation capability. The outcomes of the bootstrapping test for the structural model are illustrated in Figure 2 and summarized in Table 3. Table 3 presents the results of hypothesis testing demonstrating that the capacity for bank product innovation exhibits a positive and direct correlation with three organizational learning factors.

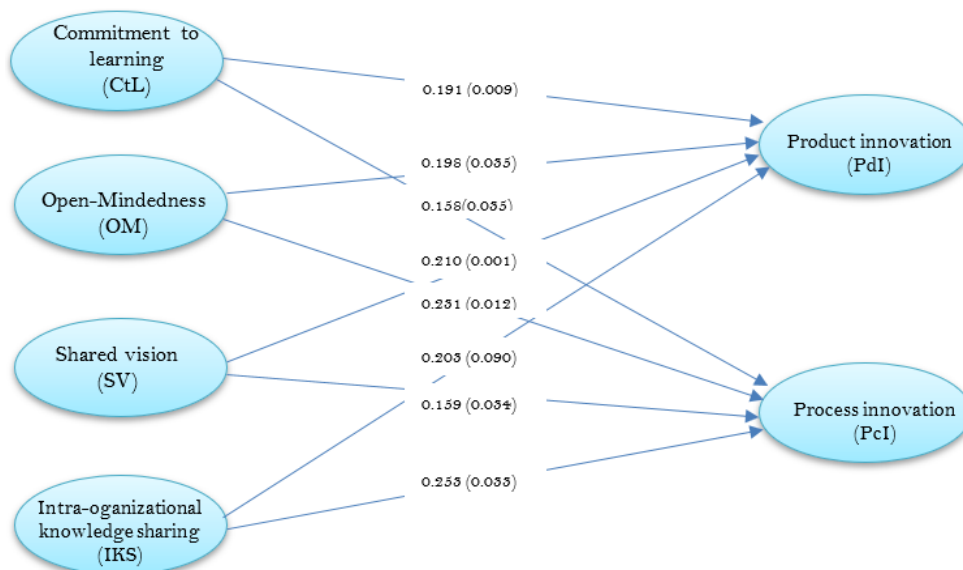


Figure 2. Measurement and structural model analysis.

The most influential factor is the sharing of the organization's vision (SV) with a beta factor of 0.210 and  $p=0.011$  followed by OM ( $b= 0.198, p=0.025$ ) and CtL ( $b= 0.191, p=0.009$ ). Therefore, H1.1, H2.1 and H3.1 were partially supported. The findings indicate that each standard deviation change in SV, OM and CtL results in an increase of 0.210, 0.198 and 0.191 standard deviations in PdI, respectively. Conversely, IKS did not influence PdI leading to the rejection of H4.1. The adjusted R<sup>2</sup> coefficient for PdI was 0.508 signifying that SV, OM and CtL can collectively account for a significant 50.8% of the variance in PdI.

Hypotheses 1, 2, 3, and 4 were subjected to testing and the results indicated that PcI exhibited a positive and direct relationship with four organizational learning factors (CtL, SV, OM, and IKS). The most substantial impact was observed on IKS ( $b = 0.253, p = 0.033$ ) followed by OM ( $b = 0.231, p = 0.012$ ), SV ( $b = 0.159, p = 0.034$ ) and CtL ( $b = 0.158, p = 0.035$ ). The findings imply that each standard deviation change in IKS, OM, SV and CtL results in an increase of 0.253, 0.231, 0.159 and 0.158 standard deviations in PcI. Consequently, H2.1, H2.2, H3.2 and H4.2 were partially supported. The adjusted R<sup>2</sup> coefficient for PcI was 0.509 indicating that IKS, SV, OM and CtL collectively account for a significant 50.9% of the variance in PcI.

**Table 3. Structural model results.**

Hypothesis	Relationship	Path coefficients - B	Standard deviation	T – statistics	P-value	Decision
Model 1: Factors of the bank's product innovation capacity, R square adjusted = 0.508						
H1.1 (+)	LOC -> SP	0.191	0.073	2.605	0.009	Supported
H2.1 (+)	LOS -> SP	0.210	0.083	2.535	0.011	Supported
H3.1 (+)	LOM -> SP	0.198	0.094	2.106	0.025	Supported
H4.1 (+)	LOK -> SP	0.203	0.120	1.696	0.090	Rejected
Model 2: Factors of bank's process innovation capacity, R square adjusted = 0.509						
H1.2 (+)	LOC -> QT	0.158	0.075	2.116	0.035	Supported
H2.2 (+)	LOS -> QT	0.159	0.075	2.127	0.034	Supported
H3.2 (+)	LOM -> QT	0.231	0.095	2.516	0.012	Supported
H4.2 (+)	LOK -> QT	0.253	0.118	2.139	0.033	Supported

## 5. DISCUSSION

This result shows that the sharing of the vision broadly within the organization plays a leading role in driving the bank's product innovation towards the defined vision. Intra-organizational knowledge sharing is the leading factor in bank process innovation. It is necessary to first promote information sharing within the bank. This result is also consistent with previous studies such as Kiziloglu (2015), Soomro et al. (2021) and Alerasoul et al. (2022). This result shows that when a bank's internal information-sharing system is well implemented, knowledge sharing among employees increases its ability to innovate processes. Therefore, building a system and culture of internal knowledge sharing is necessary to improve innovation capacity for banks. Moreover, banks also need to encourage creative thinking, understand the vision and always learn continuously among employees. These factors motivate employees to innovate products and processes to optimize the bank's operations and improve the bank's competitiveness.

### 5.1. Implications

The results of this research show that the capacity of Vietnamese commercial banks to innovate products and processes is positively affected by the banks' learning capacity. Banks with good learning capacity will increase their bank's creativity. Commercial banks need to strengthen the commitment to learning activities of leaders and employees in the bank based on the research results to improve innovation capacity. Banks need to build and promote a culture of learning, encourage learning and sharing and increase investment in training at banks.



### *5.1.1. First, Build and Promote a Culture of Learning*

Currently, many commercial banks have built and maintained a strong corporate culture with their own cultural identity ensuring that they become a place to connect, develop sustainably, attract and add value to other resources. The establishment, maintenance and development of a culture of learning and innovation at commercial banks is essential as a component of corporate culture with a final objective of serving as a strategic orientation. The culture of learning and creativity must be understood and implemented throughout the bank's system, thereby contributing to creating the most favorable environment for incubating and nurturing innovative ideas to be researched and put into practice. Banks need to attach importance to the role of learning, considering learning as a necessary factor for the bank's survival and a factor that creates competitive advantages for banks. The more commercial banks appreciate learning activities, the easier it is for learning to be done.

### *5.1.2. Second, Encourage Learning Activities*

Commercial banks need to have specific and clear policies to encourage learning and sharing activities. These policies will benefit commercial banks as they will help shape a culture of learning in banks. The board of directors and members' council may issue resolutions or action plans to create a culture of innovative learning in the bank. The executive board shall have action programs, conduct reviews to promulgate new or supplementary training regulations, scientific and technological regulations including criteria of learning and creativity in the process of evaluating staff in training, fostering, rewarding, paying, planning and appointing.

Learning should be encouraged by banks in many ways to maintain a learning environment in banks. Domestic commercial banks need to actively learn from the experiences of foreign banks especially in terms of governance and administration. In addition, banks need to increase the reception of feedback from customers to improve the quality of their products and services. Learning, research and creativity activities need to take customers as the nucleus and be the center of innovation activities to come up with more advanced process improvement ideas, new implementation ideas, the feasibility of developing new products and services as well as improve and upgrade existing products and services.

Intra-bank learning activities can be carried out through channels such as seminars, meetings, conferences, intranets, e-libraries, forums, public social networks or internal social networks, emails, newsletters, the internal press or even through informal channels such as exchanges and discussion among employees. Bank employees need to be empowered and trusted because they possess specialized knowledge of their work and are capable of effective self-improvement. When empowered, bank employees will feel more trusted and responsible, thereby arousing creativity and initiative in finding optimal solutions for work. When managers are open to mistakes and learn from employees, this will be an opportunity for both to develop together. Trust and cooperation between the two sides will be strengthened, create a positive and effective working environment. Bank employee will complete tasks more effectively and efficiently. Bankers need to see themselves as associates in determining the direction of the bank.

### *5.1.3. Third, Increase Investment in Training Activities*

Commercial banks need to build a team of highly qualified staff with a sense of responsibility, good moral qualities, creativity and a willingness to conduct innovation and continuous learning. Commercial banks need to actively train, retrain and regularly train employees for newly supplied products and services. Commercial banks update the latest achievements of science and technology in the banking sector to put into training.

Commercial banks need to have a dedicated team to do training and scientific research. If there are no conditions to establish a separate training school, commercial banks should also organize a center, a department or a specialized training group in the bank. This training department should be in the HR division to ensure coherence with the bank's overall HR policy but should have relative organizational independence from the HR department to focus on effective staff training and development.

### 5.2. Limitations and Future Research Directions

The author exerted considerable effort in conducting this study. However, certain limitations are inevitable despite the obtained results. Firstly, the use of an indirect measurement method through surveys is more constrained compared to statistical data when considering criteria for assessing data objectivity. Secondly, since survey participant responses are contingent on awareness and understanding of the subject, biases may be introduced potentially influencing research outcomes. Thirdly, the temporal nature of the research data collected limits the evaluation to the current three-year period potentially imposing constraints on the results. Future studies could select the analysis and collection of statistical data aligned with the criteria for evaluating the innovation performance of banks to address these limitations.

## 6. CONCLUSION

This study analyzed the relationship between organizational learning and banks' innovation capabilities. The results show that commercial banks will enhance their product and process innovation capabilities if they are willing to learn. Most of the four components of organizational learning were shown to have a positive and statistically significant impact on an increase in a bank's innovation capabilities. In addition, the bank's product innovation was not impacted by intra-organizational information sharing. Therefore, banks need to focus on building and developing a learning culture towards becoming a learning organization to improve innovation capacity. Factors that need to be strengthened include commitment to learning, shared vision among all employees, open-mindedness and intra-organizational knowledge sharing.

Innovation is considered a key factor for banks to meet the rapidly changing requirements of the business and technology environment in the context of increasingly fierce competition and the development of the current intellectual economy. The banking industry is also constantly striving to implement this activity internally in the general development orientation of the country based on innovation. Vietnamese commercial banks need to constantly strengthen their capacity for innovation and creativity by improving their learning capacity to promote proactive capacity in integration to take advantage of opportunities and overcome challenges.

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**Institutional Review Board Statement:** The Ethical Committee of the Vietnamese State Bank, Vietnam has granted approval for this study on 8 April 2020 (Ref. No. 673/QĐ-NHNN on 08/04/2020).

**Transparency:** The author states that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Competing Interests:** The author declares that there are no conflicts of interests regarding the publication of this paper.

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