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Digital Technology Application in Building Relationships with Individual Customers: Research at JPMorgan Chase, DBS Bank, and Suggestions for Vietnamese Commercial Banks

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ABSTRACT

This article analyzes the experience of applying digital technology in building and maintaining relationships with individual customers at two international banks, JPMorgan Chase (USA) and DBS Bank (Singapore). JPMorgan Chase has used artificial intelligence (AI) and big data to personalize customer experiences, effectively combining digital channels and physical branches to create a comprehensive financial ecosystem. Similarly, DBS Bank strongly applies AI, big data, and advanced security technology to enhance customer experience and ensure transparency and safety, helping the bank achieve the highest level of satisfaction in Southeast Asia.

From these experiences, the study proposes several suggestions for Vietnamese commercial banks, including: upgrading digital technology infrastructure and integrated data platforms; strongly deploying AI and big data analytics throughout the customer journey; widely applying electronic identification (eKYC) to expand customer access; building an omni-channel banking model to ensure consistency and seamlessness in experience; and developing a highly digitally capable workforce to meet the needs of comprehensive digital transformation in the banking industry.

1. INTRODUCTION

In the context of globalization and the fourth industrial revolution, digital transformation has become an inevitable and powerful trend, especially in the financial and banking sector. Commercial banks around the world increasingly recognize the core role of digital technology not only in optimizing business operations but also in building and strengthening relationships with individual customers. Accordingly, the application of technological solutions such as artificial intelligence (AI), big data analytics, blockchain, cloud computing, and biometrics has helped banks create more personalized, flexible, and seamless banking service experiences (Kotler et al., 2024; McKinsey, 2023).

JPMorgan Chase and DBS Bank are two of the world's leading banks in leveraging digital technology to build long-term and effective relationships with individual customers. JPMorgan Chase has invested heavily in digital platforms, applying AI in financial consulting and asset management, as well as exploiting Big Data to understand customer behavior, thereby providing extensive personalized services (JPMorgan Chase, 2024). Similarly, DBS Bank stands out in using AI and Big Data to optimize customer experience and security, while building strong digital banking platforms, promoting customer satisfaction and loyalty (DBS Bank, 2023).

In Vietnam, commercial banks are also actively undergoing digital transformation, initially achieving certain successes in applying digital technology to manage relationships with individual customers. However, the actual implementation shows that there are still many gaps compared to advanced international banks, especially in the synchronous integration of technology solutions to optimize customer experience. In light of this situation, researching and evaluating the current situation, learning from international experience, and making appropriate recommendations for Vietnamese commercial banks is essential.

This research aims to provide an in-depth analysis of the current state of digital technology application in building and maintaining relationships with individual customers through case studies at JPMorgan Chase and DBS Bank. Based on this, the study proposes practical recommendations to help Vietnamese commercial banks effectively leverage digital technology solutions to improve service quality, strengthen customer loyalty, and increase competitiveness in today's increasingly fierce digital business environment.

2. LITERATURE REVIEW

2.1. Digital Technologies Applied in the Business Operations of Commercial Banks

Digital transformation has reshaped the operations of commercial banks worldwide, shifting from traditional models to customer-centric approaches.

In the context of strong digital transformation globally, commercial banks (CBs) in Vietnam are also actively deploying and integrating many digital technologies into their business operations to improve operational efficiency, increase competitiveness, and create long-term advantages in the financial market. These technologies not only play a supporting role but are also the core driving force helping banks restructure their operating models towards flexibility, transparency, and customer-centricity (State Bank of Vietnam, 2023).

One of the important technology pillars is **artificial intelligence (AI)**, with the ability to process and analyze big data to support quick and accurate decision-making in activities such as credit approval, risk management, fraud detection, and marketing strategy optimization. AI supports customer behavior analysis, process automation, and fraud detection. According to McKinsey (2023), 70% of global banks use AI in at least one stage of the financial value chain. According to a PwC report (2023), more than 60% of large banks in Vietnam are using AI in at least one stage of the financial service value chain. The application of AI also helps automate internal operating processes such as document processing, asset valuation, and investment portfolio management (Nguyen & Tran, 2023).

Blockchain technology is applied in cross-border payments and smart contracts, ensuring transparency and reducing costs (Deloitte, 2023). Blockchain is also being tested and deployed in areas such as international payments, transaction data storage, and contract authentication. Techcombank and VietinBank are two of the pioneering banks in Vietnam cooperating with international organizations to test blockchain in cross-border payments, aiming to ensure transparency and information security (Do & Nguyen, 2024). In addition, smart contracts integrated on the blockchain platform also open up the possibility of shortening processing times and reducing transaction costs.

Cloud computing plays an important role in enhancing the scalability and flexibility of banking systems, helping banks expand their scale and deploy new services quickly. More than 65% of large banks in Europe and North America have switched to cloud platforms (PwC, 2023). Moving data and applications to the cloud platform helps CBs reduce technology infrastructure costs while easily deploying new services quickly and efficiently. According to a survey by McKinsey (2023), nearly 70% of banks in Southeast Asia are investing in transforming to cloud infrastructure, with Vietnam being assessed as one of the markets with the fastest transformation speed.

Biometrics technology, especially authentication by face and fingerprint, has become a powerful tool to support customer identity verification in electronic financial transactions, enhance security, and expand customer access, especially in emerging markets (World Economic Forum, 2020). The eKYC (electronic Know Your Customer) process not only helps banks comply with legal regulations but also contributes to expanding access to customers in rural and mountainous areas – where traditional banking infrastructure is limited (Investment Newspaper, 2023).

In addition, **robotic process automation (RPA)** is also applied in highly repetitive tasks such as invoice processing, data updating, and compliance checking, thereby minimizing operational errors and improving labor productivity. Banks such as MB Bank and ACB are currently using RPA to save tens of billions of dong in operating costs each year (Le & Nguyen, 2024).

The combination of the above technologies within the framework of comprehensive **digital banking** has helped Vietnamese CBs quickly adapt to the increasing demand for instant, transparent, and personalized financial services. Investing in technology is not only an inevitable trend but also a long-term strategy to improve business efficiency, control risks, and promote the sustainable development of the banking industry in the digital age.

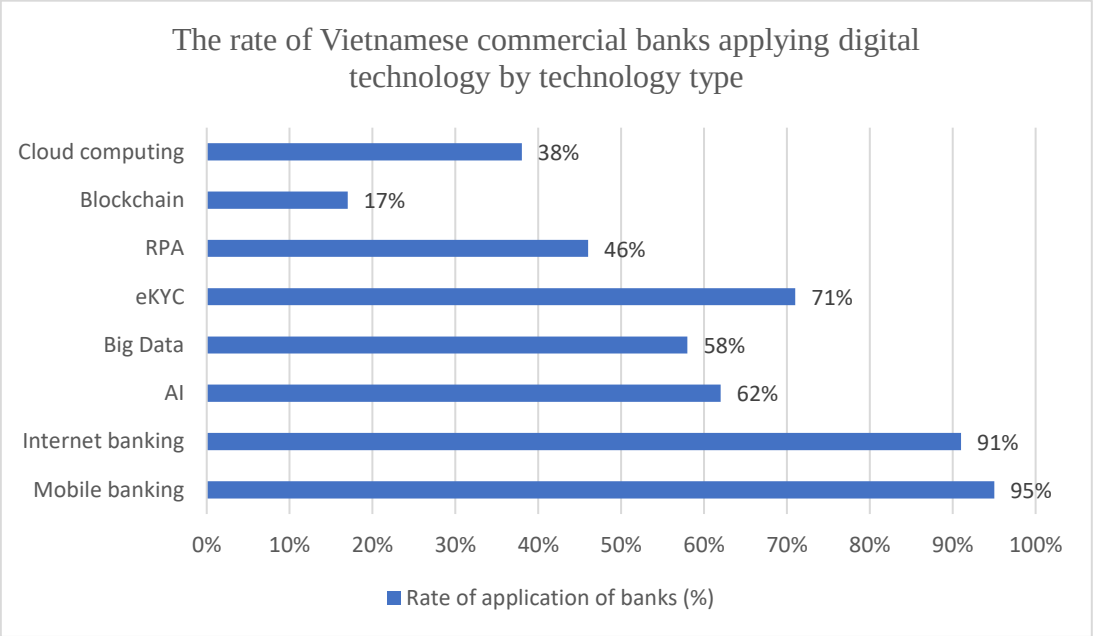

Figure 1. Percentage of Vietnamese CBs Applying Digital Technology by Technology Type
Source: State Bank of Vietnam (2024), PwC (2023)

JPMorgan Chase and DBS Bank were selected by the authors because they are two pioneering banks in digital transformation, representing two strongly developing regions (North America and Southeast Asia). JPMorgan Chase leads in technology investment ($17 billion in 2023) and integrates physical-digital channels, serving more than 65 million individual customers. DBS Bank is recognized as the best digital bank in the world (2023) thanks to the deployment of more than 600 AI/ML models and the "Customer 360" system. The success of these two banks has shaped the global digitization trend, providing lessons on personalization, security, and omni-channel models, especially suitable for Vietnam – a rapidly transforming market but still facing many challenges in infrastructure and human resources.

2.2. Application of Digital Technology in Building Relationships with Individual Customers of Commercial Banks

In the context of global digital transformation, banks are reshaping their strategies for approaching and maintaining relationships with individual customers. Modern technology, especially digital solutions, has become the core foundation to help banks enhance experiences, personalize services, and strengthen customer loyalty (Deloitte, 2023).

The development of digital banking is a remarkable step forward. Mobile and internet banking platforms now account for a large proportion of total transactions, especially at leading banks such as JPMorgan Chase, Bank of America, and DBS Bank. Thanks to the integration of machine learning, these platforms can analyze behavior, predict needs, and automatically recommend suitable products, enhancing interaction and retaining customers (McKinsey, 2023).

In addition, artificial intelligence (AI) and big data analytics are widely applied in credit scoring, fraud detection, and personalized marketing. AI is also supporting the operation of virtual assistants, improving service quality and reducing operating costs (PwC, 2022). eKYC technology allows remote identification, supporting account opening without face-to-face meetings, contributing to promoting financial inclusion in many markets (World Bank, 2022).

The omni-channel banking model helps ensure a consistent experience across multiple platforms: mobile applications, websites, social networks, and call centers. Many banks have integrated services into digital ecosystems – e-wallets, e-commerce, healthcare – to increase touchpoints and expand service value (Accenture, 2023).

Besides, emerging technologies such as blockchain and smart contracts are being tested in cross-border payments, credit granting, and guarantees. They promise to bring transparency, security, and decentralization to future financial services (EY, 2023).

However, there are still challenges such as the understanding of digital technology among population groups, data security risks, technology infrastructure, and lack of internal capacity are significant barriers. Compliance with data protection regulations such as GDPR or CCPA also places higher requirements on banks in processing and exploiting customer data (IMF, 2023).

Modern technology is fundamentally changing the way relationships are built with individual customers, from transactions to experiences, from standardization to personalization. Success in digital transformation will be a decisive factor in the ability to retain customers and create long-term competitive advantages in the digital financial era.

3. Application of Digital Technology in Building Relationships with Individual Customers at JPMorgan Chase

JPMorgan Chase, with a history dating back to the merger between J.P. Morgan & Co. and Chase Manhattan Corporation in 2000, is currently the largest financial institution in the United States, managing total assets of more than $3.9 trillion by the end of 2024. With more than 44 million individual customers and 7 million small businesses, this bank not only leads in scale but is also one of the global pioneers in applying digital technology to improve the efficiency of managing relationships with individual customers.

The focus of JPMorgan Chase's digital transformation strategy is to invest heavily in artificial intelligence (AI), big data, and automation. The bank's technology budget in 2025 reached a record level of $18 billion – a large part of which is allocated to AI-related initiatives. To date, JPMorgan has deployed more than 175 AI applications across the system, with usage ranging from internal data processing, credit assessment, to financial consulting support. AI not only plays a role as an operational support tool but also as a core platform to personalize the customer experience journey deeply and flexibly in real time (Business Insider, 2025).

The application of AI in retail banking is clearly demonstrated through the Chase Mobile platform – one of the most downloaded financial applications in the United States. Thanks to the integration of machine learning models, this application provides a personalized experience for each user, from smart transaction suggestions, cash flow forecasts, to consumer advice. Internal surveys show that user engagement increased by more than 25% after deploying algorithms to optimize content and services according to customer behavior (Business Insider, 2025). In addition, tools such as "Smart Monitor" and "Connect Coach" used in asset management and investment consulting have also contributed to tripling consulting productivity during the market volatility period in early 2025 (Reuters, 2025).

In addition to optimizing the user interface, JPMorgan Chase also aims to build an integrated financial ecosystem, allowing customers to manage all personal finances – from payments, savings, investments to insurance – on a single platform. This approach not only enhances convenience but also helps the bank collect and process a wealth of data, thereby enhancing its ability to analyze behavior, forecast needs, and strengthen the ability to retain individual customers at the strategic level. Combining AI technology with multi-dimensional data allows the bank to segment customers by customer lifetime value (CLV), while flexibly customizing services according to each customer's stage.

Operational efficiency has also improved significantly thanks to technology. JPMorgan Chase has used AI systems to automate fraud detection, credit analysis, and repetitive operations, helping to reduce service costs by nearly 30% in the past three years. In addition, the bank expects to reduce about 10% of traditional operating staff by retraining the existing workforce to management and digital system development positions (Wall Street Journal, 2025).

However, deep integration of technology into the system also poses significant challenges. JPMorgan Chase has been facing the problem of synchronizing data between legacy systems, ensuring the accuracy of AI models, as well as handling risks related to privacy and data ethics. To solve this problem, the bank has applied a strict internal control system, while implementing employee training programs to raise awareness and capacity to deploy AI responsibly and transparently.

Table 1. Technology Results at JPMorgan Chase

Indicator	Value	Source
Number of AI applications deployed	300	Constellation Research (2023)
Cost savings from AI (USD)	1,5 billion USD	Constellation Research (2023)
Technology budget (2024)	17 billion USD	MarketWatch (2024)
Customer satisfaction rate (NPS)	80%	Customer Experience Dive (2024)
Weekly active mobile app users	78%	Chase Media (2024)
Customers who consider the app indispensable	62%	Chase Media (2024)
Percentage of applications migrated to cloud	70%	BankingDive (2024)
Percentage of data migrated to cloud	75%	BankingDive (2024)

Source: Compiled by the authors

Thus, it can be seen that the application of digital technology to strengthen relationships with individual customers is not simply a change of operating tools but a comprehensive strategy, combining technology, data, and organizational capacity. In the context of the financial market shifting strongly towards digitization, JPMorgan's model not only demonstrates the effectiveness of a personalized strategy based on big data but also provides a feasible model for global financial institutions in building sustainable customer relationships on a digital platform.

4. Application of Digital Technology in Building Relationships with Individual Customers at DBS Bank

DBS Bank, established in 1968, is the largest bank in Singapore with total assets reaching 827 billion SGD in 2024, serving more than 18.4 million individual customers and managing assets worth 271 billion USD. Since 2014, DBS has launched a comprehensive digital transformation strategy, positioning itself as a technology company providing financial services, to enhance the experience and engagement of individual customers. DBS is also a bank with a pioneering digitization strategy and the title of "Best Digital Bank in the World" (2023).

DBS Bank, one of the leading banks in digital transformation in Asia, has implemented a comprehensive technology strategy to build and strengthen sustainable relationships with individual customers. Starting in 2016, the bank restructured its operations based on data and technology platforms, in which the integration of artificial intelligence (AI), big data analytics, mobile banking, and advanced security technologies played a core role (DBS Bank, 2023).

A highlight in DBS's strategy is the deployment of more than 600 AI/ML models and more than 300 use cases, mainly focusing on personalizing customer services, optimizing operations, and increasing revenue. Smart chatbots such as DBS Digibot have helped automate the processing of over 80% of customer requests, contributing to enhancing the experience and minimizing operating costs (McKinsey, 2023). In parallel, the bank has also sent an average of 45 million personalized messages each month to more than 5 million customers through the digital platform.

Regarding big data analytics, DBS operates the "Customer 360" system with more than 5.3 petabytes of data, allowing analysis of customer behavior, forecasting future needs, and making appropriate financial recommendations. The ability to leverage this data has helped DBS proactively support customers at risk of financial difficulties, thereby enhancing humanity in banking services (DBS Bank, 2023).

On the other hand, DBS also invests heavily in the mobile banking platform, allowing customers to perform all financial transactions – from transfers, bill payments to account opening – quickly and conveniently. In the period from June to August 2020, the number of digibank application users increased by 216%, bringing the total number of digital customers to 3.5 million (World Economic Forum, 2020).

To ensure information security, DBS applies advanced security technologies such as biometric authentication, data encryption, and two-factor authentication, combined with "soft tokens" that only work on registered devices, thereby increasing customer trust and satisfaction (DBS Group Holdings Ltd., 2023).

In particular, DBS is a pioneer in proposing and applying the PURE (Purposeful, Unsurprising, Respectful, Explainable) principle to ensure the use of AI and customer data in an ethical, transparent, and privacy-respecting manner. Thanks to consistent and customer-centric technology strategies, DBS has been recognized as the best digital bank in the world and achieved the highest level of customer satisfaction in Southeast Asia in 2023 (DBS Bank, 2023).

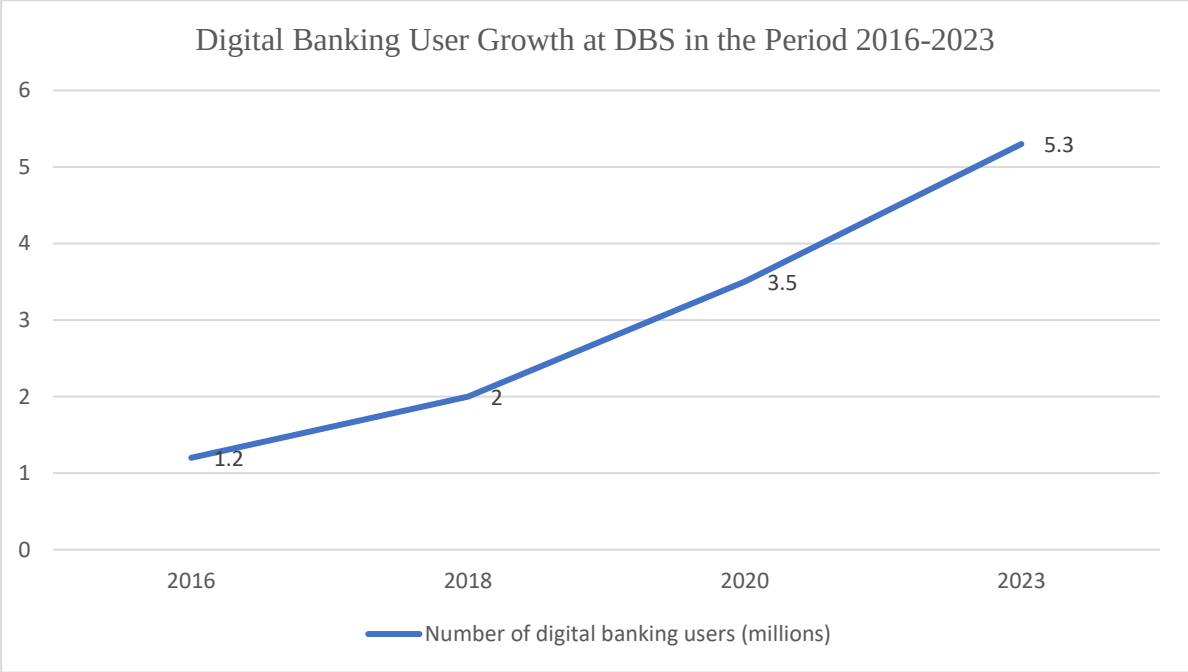

Figure 2. Digital Banking User Growth at DBS in the Period 2016-2023
Source: DBS Group Holdings Ltd. (2023), World Economic Forum (2020)

5. Current Status of Digital Technology Application in Building Relationships with Individual Customers of Vietnamese Banks

5.1. Application of Digital Technology in Building Customer Relationships

In the context of digital transformation increasingly becoming an urgent requirement in the financial - banking industry, Vietnamese commercial banks have been promoting the application of digital technology as a core strategy to enhance the experience of individual customers. According to BIDV (2023), this bank has completed 55% of strategic digitization initiatives and recorded nearly 70% of individual customers using digital channels, an increase of more than 3.5 million people compared to the previous year. The proportion of transactions via digital channels at many large banks such as Vietcombank, BIDV, or Techcombank has exceeded 80%, reflecting the increasing level of digital technology acceptance in the financial consumer behavior in Vietnam. However, most transactions still focus on basic functions such as transfers and bill payments, while high-value services such as financial consulting, automated investment, and digital asset management have not yet been widely developed.

One of the prominent areas in the digitization process is the application of artificial intelligence (AI). Some banks such as Techcombank, VPBank, TPBank, and Cake by VPBank have deployed AI models for activities such as credit scoring, fraud detection, personalized product consulting, and virtual assistants. For example, according to Techcombank (2024), bank has sent over 680 million personalized messages during the year, while also integrating smart financial suggestions into the mobile application. However, these models mainly focus on the product suggestion or transaction support stage, not yet reaching the deep integration level of DBS's NAV Planner or JPMorgan Chase's Coach AI – tools that can support customers in comprehensive financial planning in real-time.

Along with AI, the application of big data analytics has been contributing to improving the ability to understand customers at Vietnamese banks. BIDV (2023) stated that it has built a dedicated team for data science to restructure the service model according to each customer segment. Analyzing transaction data, spending habits, and user behavior has helped some banks shift from a mass-service model to basic service personalization. However, the capacity for integrated data management and customer lifecycle behavior analysis is still limited, unable to support the development of service strategies based on customer lifetime value (CLV) as in JPMorgan Chase's model.

Notably, electronic Know Your Customer (eKYC) technology is considered one of the breakthrough steps of the Vietnamese banking industry. According to Globenewswire (2024), by mid-2024, 40 banks had applied eKYC, opening nearly 35 million payment accounts and 15.3 million credit cards completely online. Biometric technology, especially facial recognition, is being widely deployed, with over 600,000 transactions being biometrically authenticated daily (BiometricUpdate, 2024). Although eKYC has expanded access to financial services for people in rural areas and those without bank accounts, the integration of this technology into the extended value chain such as lending, investment, or personal insurance is still not common.

In addition, building a digital financial ecosystem and providing an omni-channel experience is becoming a clear trend. Techcombank, for example, has developed an application that integrates multiple financial services including savings, payments, securities investment, and asset management. However, the ability to synchronize data and maintain a seamless experience across touchpoints (application, web, call center, social networks) has not yet reached the seamless level as in the models of DBS or JPMorgan – where customers can track and manage their entire financial life in a single digital ecosystem, supported by AI and real-time data.

At the level of technology infrastructure, some banks such as VPBank have invested heavily in an open platform (OpenAPI), processing over 100 million transactions per month through over 220 microservices (VPBank, 2024). However, the process of transitioning to a cloud computing platform still faces many legal barriers and increasingly high data security requirements. While global banks such as JPMorgan Chase have moved 70% of applications and 75% of data to the cloud (WSJ, 2025), most Vietnamese banks are still applying a hybrid cloud model or piloting a small part on the cloud platform.

The Vietnamese banking industry has achieved important achievements in digital transformation, especially in terms of expanding financial access, increasing transaction processing speed, and improving the basic experience for individual users. However, when compared to the world's leading banks, it can be seen that Vietnam is only in the service digitization stage, not yet fully transitioning to a comprehensive digital customer relationship management model. To go further, there needs to be an overall strategy on data architecture, investment in customer behavior analysis capabilities, as well as completing the legal framework to support new technologies such as AI, cloud computing, and blockchain. At that time, the bank will not only be a provider of financial services but will also become a companion throughout the customer's personal financial journey.

5.2. Difficulties and Challenges in the Process of Applying Digital Technology at Vietnamese Commercial Banks

Although the digital transformation process at Vietnamese commercial banks has achieved positive initial results, the actual implementation is still facing many significant challenges. These obstacles are not only in terms of technology but also related to organization, people, and the legal environment – all of which affect the ability to apply digital technology sustainably and effectively.

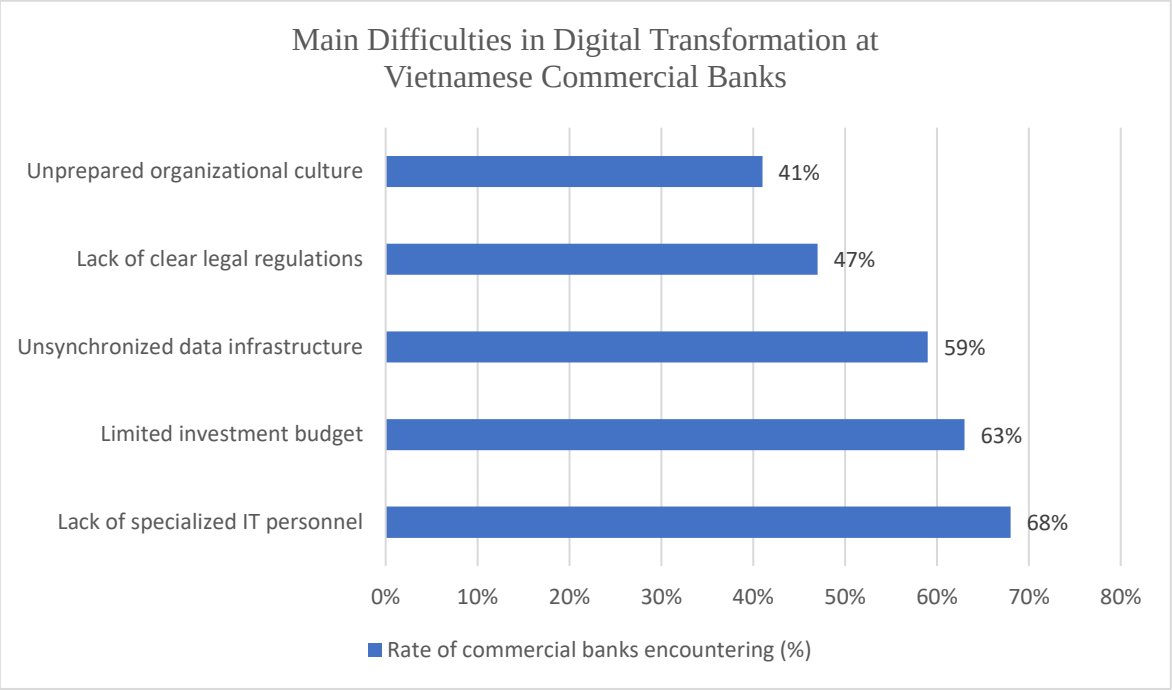

Figure 3. Main Difficulties in Digital Transformation at Vietnamese Commercial Banks
Source: Fintech News Vietnam (2024), Deloitte (2023), State Bank of Vietnam (2024)

- High digital technology investment costs and non-optimized resource allocation are common challenges. According to a PwC report (2023), the cost of deploying solutions such as AI, blockchain, or open banking can account for 10–15% of a bank's total annual budget. For small and medium-sized commercial banks in Vietnam, this is a major barrier, especially in the context of balancing many operational goals. Data from the State Bank of Vietnam (2024) shows that only about 30% of banks have sufficient financial resources to comprehensively implement a digital transformation strategy.

- Technology and data infrastructure are still not synchronized and fully modernized. Many commercial banks are still using outdated, fragmented IT systems, making it difficult to integrate new technologies such as AI or big data analytics. According to a survey by McKinsey & Company (2023), more than 45% of banks in Vietnam experience "data silos" – data is fragmented between departments, hindering the creation of a comprehensive view of customers.

- Shortage of high-quality human resources in information technology and data analysis. According to Fintech News Vietnam (2024), Vietnam is currently short of about 150,000 personnel in the field of financial technology, especially experts in AI, big data, security, and system architecture. Over-reliance on external partners or packaged solutions makes it difficult for banks to fully control the quality of implementation as well as customize according to specific needs.

- Limited awareness and digital capacity of bank staff. Digital transformation is not just a technology issue but also a change in organizational culture and working mindset. However, many bank employees, especially in local branches, are still familiar with manual processes and are not ready to adapt to new technologies. Deloitte (2023) points out that 58% of Vietnamese bank leaders assess the digital capacity of their organization's personnel as only average or low.

- The legal and regulatory framework lacks flexibility and has not kept up with technological practices. The application of models such as Open Banking or data storage on cloud computing platforms is still facing many problems in terms of standards and legal responsibilities. In addition, regulations on personal data protection are not yet complete, causing concern for both banks and customers when deploying comprehensive digitization services (State Bank of Vietnam, 2024).

- Customers' trust in digital banking services is still limited. According to a survey by Visa (2023), although more than 70% of Vietnamese consumers have used online banking services, only about 52% feel completely secure when transacting through banking applications. This shows that banks need to invest more in communication, improve user experience, and strengthen security mechanisms.

5.3. Some Recommendations for Vietnamese Banks

Based on the analysis of practical technology applications at two pioneering banks, DBS Bank and JPMorgan Chase, combined with the characteristics of the Vietnamese banking market, some recommendations can be drawn to promote the digital transformation process and improve the quality of relationships with individual customers at Vietnamese banks as follows:

First of all, the lesson from DBS shows the importance of developing a comprehensive digital financial ecosystem, putting customers at the center. This bank not only digitizes traditional financial products but also integrates functions such as personal financial management, investment consulting, and retirement planning into a single platform – NAV Planner. For Vietnam, this requires banks to shift from the current fragmented digital banking model to an integrated platform where customers can control their entire personal finances in real-time. DBS's success partly comes from synchronizing user data and effectively using artificial intelligence (AI) and big data to personalize the customer journey. Therefore, Vietnamese banks need to prioritize building a flexible data architecture, enhancing the ability to collect and process customer data in a consistent, accurate, and continuously learning manner.

Secondly, from the experience of JPMorgan Chase, it can be seen that the application of AI and Big Data in customer relationship management (CRM) is a key factor to enhance the capacity to personalize services. JPMorgan not only uses AI to advise on investment and develop smart financial plans but also deploys a series of AI models in credit approval, fraud detection, and customer interaction support. In Vietnam, although some banks such as Techcombank or VPBank have initially deployed personalization tools, the CRM system is still separate between channels and lacks the ability to analyze customer behavior at the customer lifetime value (CLV) level. Therefore, banks need to invest in AI-integrated CRM platforms that can automate product suggestions, predict needs, optimize marketing campaigns, and support customer care in real-time.

Thirdly, the omni-channel experience of DBS as well as JPMorgan shows that consistency in user experience is a key factor to maintain customer satisfaction and loyalty. Vietnamese banks today have developed a variety of interaction channels – from branches, call centers, mobile applications to social networks – but the level of synchronization between channels is still low, leading to the situation of "losing track of the journey" of customers. Therefore, it is necessary to deploy omni-channel experience management platforms, ensuring that data, communication, and services are maintained consistently across all touchpoints, thereby minimizing service churn rates and increasing customer lifetime value.

Fourthly, one of JPMorgan's outstanding strategies recently is to actively integrate financial services into third-party digital ecosystems such as e-commerce platforms, e-wallets, and healthcare. This significantly expands the value touchpoints in customers' daily lives. With the characteristics of the Vietnamese market with a young population, high internet usage rate, and the popularity of digital platforms such as Shopee, Zalo, MoMo…, banks should promote API links, expand banking services into non-financial platforms, thereby reaching customers in a more natural and frequent way.

The core lesson from both typical banks is that building digital trust is a prerequisite for maintaining long-term customer relationships. Trust comes not only from service quality but also from transparency and security. JPMorgan invests heavily in biometric authentication technologies, end-to-end data encryption, and real-time transaction monitoring systems. DBS applies ethical principles in AI design (PURE: Purposeful, Unsurprising, Respectful, Explainable) to ensure transparency and respect for privacy. In Vietnam, in the context of limited information security and customer awareness, banks need to not only invest in security infrastructure but also proactively transparentize security policies, organize communication to educate customers about digital safety, thereby creating a solid foundation of trust for sustainable digital banking development.

Learning and selectively adapting the advanced experiences from JPMorgan and DBS is entirely feasible for Vietnamese banks, but it requires a long-term vision, a methodical investment in technology, data, human resources, and especially a genuine customer orientation, not only at the transaction level but also at the level of lifelong personal financial companionship.

6. CONCLUSION AND LIMITATIONS OF THE STUDY

6.1. Conclusion

This study provides important findings on the practical application of digital technology in building relationships with individual customers through a case analysis of two typical banks in the world, JPMorgan Chase and DBS Bank, thereby proposing strategic implications for Vietnamese commercial banks. The analysis results have identified four prominent technology pillars including: multi-channel interaction through digital platforms, personalization of customer experience with artificial intelligence (AI), big data analytics to understand customers, and a strategy combining digital and physical experiences.

Based on these experiences, the study has proposed five specific strategic implications for Vietnamese commercial banks: (i) invest heavily in digital infrastructure and AI capabilities to enhance customer experience on digital platforms; (ii) comprehensively apply big data analytics to personalize products and marketing strategies; (iii) deploy chatbots and AI virtual assistants to support customers continuously and promptly; (iv) strengthen digital security through biometric authentication and advanced cybersecurity solutions to enhance customer trust; (v) build and implement an omni-channel banking strategy to ensure consistency and seamlessness in customer experience between digital and physical channels.

6.2. Limitations of the Study

Although the study has provided useful information in practice, there are also some limitations. The study mainly uses a qualitative analysis method, focusing on two international banks, JPMorgan Chase and DBS Bank – which may differ significantly from Vietnamese commercial banks in terms of scale of operations, technology infrastructure, and customer base. Future studies should focus on empirically assessing the feasibility and effectiveness of the technology solutions mentioned in the specific context of the Vietnamese banking industry. In addition, expanding the scope of research to many different banks from countries or regions will provide more comparative insights, thereby providing more specific and appropriate recommendations for the specific operations of Vietnamese commercial banks.

REFERENCES

1. Business Insider. (2025). *AI is core to JPMorgan's $18 billion tech investment*. Retrieved from https://www.businessinsider.com/jpmorgan-how-artificial-intelligence-transforming-workflows-efficiencies-2025-5
2. DBS Bank. (2023). *Annual report 2023*. Retrieved from https://www.dbs.com
3. DBS Group Holdings Ltd. (2023). *Sustainability report 2023*. Retrieved from https://www.dbs.com/investor
4. Deloitte. (2023). *Digital banking maturity in ASEAN: Vietnam spotlight*. Deloitte Insights. Retrieved from https://www2.deloitte.com/
5. Do, T. H., & Nguyen, V. K. (2024). Blockchain adoption in cross-border payments: A case study of Vietnamese commercial banks. *Journal of Financial Technology and Innovation, 11*(2), 45–59.
6. Fintech News Vietnam. (2024). *Vietnam digital banking landscape report 2024*. Retrieved from https://fintechnews.sg/
7. Investment Newspaper. (2023). *Vietnamese banks accelerate eKYC and digital banking deployment*. Retrieved from https://baodautu.vn/
8. JPMorgan Chase. (2024). *JPMorgan Chase & Co. annual report 2023–2024*. Retrieved from https://www.jpmorganchase.com
9. Kotler, P., Kartajaya, H., & Setiawan, I. (2024). *Marketing 5.0: Technology for humanity*. Wiley.
10. Lê, T. H., & Nguyễn, H. T. (2024). Digital technology and operational efficiency in Vietnamese commercial banks. *Journal of Corporate Finance*, (6), 35–42.
11. McKinsey & Company. (2023). *Cloud banking in Southeast Asia: Shaping the next-generation bank*. Retrieved from https://www.mckinsey.com/
12. Nguyen, M. H., & Tran, T. P. (2023). Artificial intelligence and big data in customer management of Vietnamese banks. *Banking Review*, (21), 58–64.
13. Pham, Q. T., Le, A. D., & Tran, M. T. (2024). Omnichannel banking and customer loyalty in the digital age: Evidence from Vietnam. *Asian Journal of Business and Management, 12*(1), 24–36.
14. PwC. (2023). *Vietnam digital banking outlook 2023*. Retrieved from https://www.pwc.com/vn
15. Reuters. (2025). *JPMorgan says AI helped boost sales, add clients in market turmoil*. Retrieved from https://www.reuters.com/business/finance/jpmorgan-says-ai-helped-boost-sales-add-clients-market-turmoil-2025-05-05/
16. State Bank of Vietnam. (2023). *Report on digital transformation progress in Vietnam's banking sector 2023*. Hanoi: SBV.
17. State Bank of Vietnam. (2024). *Assessment of digital technology adoption in Vietnamese commercial banks*. Retrieved from https://sbv.gov.vn
18. The Wall Street Journal. (2025). *The rise of artificial intelligence at JPMorgan*. Retrieved from https://www.wsj.com/tech/ai/jpmorgan-chase-artificial-intelligence-banking-939b1b32
19. Visa. (2023). *Consumer payment attitudes study: Vietnam report*. Retrieved from https://www.visa.com.vn/
20. VNPT AI. (2024). *AI applications in banking customer behavior analysis*. Retrieved from https://vnpt.com.vn/
21. World Economic Forum. (2020). *DBS Bank's digital transformation journey*. Retrieved from https://www.weforum.org/