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# Digital Transformation and Customer Bank Usage in a Financial Institution in San Isidro District (Lima, Peru) in 2022

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## ABSTRACT

Digital transformation offers a great opportunity for bank usage, enhancing productivity and competitiveness among professionals. This research study examined the relationship between digital transformation and customer bank usage in a financial institution in San Isidro (Lima, Peru) in 2022. A quantitative approach and a non-experimental and cross-sectional research design with correlational scope were used. The survey as a technique and the questionnaire as a tool were applied to the entire population of the financial institution under investigation, which consisted of 40 employees (census sample). The analysis of the general hypothesis revealed a correlation coefficient of  $r = 0.564$ , suggesting a moderate relationship. In conclusion, there is a significant correlation between digital transformation and customer bank usage.

**Keywords:** digital transformation, bank usage, organizational culture, digital impact, continuous improvement.

## INTRODUCTION

Following the COVID-19 pandemic, financial institutions have been compelled to accelerate the advancement of digital transformation procedures. This shift has become a key strategic initiative aimed at addressing customer needs effectively. By adopting a proactive approach, companies can respond rapidly to market demands and lay the foundation for continuous improvement in customer experience. The swift integration of digital technologies not only strengthens the company's competitive position but also enhances its ability to provide innovative solutions and maintain solid, satisfactory connections with its clientele. However, following this crisis, much work remains to be done in the digital transformation process, particularly as customer expectations become more demanding in an ever-changing market.

In this context, leaders and managers in the financial sector must recognize that digital transformation extends beyond merely technological advancements. This recognition implies understanding that digital transformation is a comprehensive process that encompasses cultural, strategic, and organizational changes. Rather than simply implementing new technologies, organizations must reassess and adapt their business practices, organizational structure, and corporate mindset. Understanding this holistic dimension of digital transformation is critical to successfully transitioning to a more efficient, innovative, and customer-centric business model in the financial sector.

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The main challenge lies in preparing highly skilled professionals and fostering digital engagement throughout the organization, along with designing continuous improvement processes aligned with the corporate culture. This approach involves equipping employees with the skills and knowledge necessary to adapt to emerging technologies while fostering an organizational culture that values innovation, collaboration, and continuous improvement in the digital realm. Training competent professionals and ensuring a strong commitment to digital transformation are key elements to ensure a smooth and effective transition to a digitized and evolving business environment (Borrell & Vestager, 2021).

Therefore, financial institutions must pursue an effective digital transformation. According to Pérez (2020), digital transformation offers a great opportunity for financial inclusion, enhancing productivity and competitiveness among professionals through the development of new digital competencies. This new context poses a considerable challenge for organizations, as it has the potential to transform not only their business models but also the job roles and responsibilities of the professionals involved. In this dynamic environment, proactive adaptability is crucial, as the implications extend beyond the business sphere and directly impact individuals in their respective roles. Addressing this challenge comprehensively is a strategic priority, as transforming a business model requires a thorough reconfiguration of organizational structures and job functions, along with the ongoing development of skills among those involved. This transformation demands a vision that integrates processes and technology, as well as people and talent, within the framework of modern business models.

The primary goal of digital transformation is to enhance companies and people, rather than replacing the latter with machines. In this context, two key dimensions of digital transformation must be recognized: digital capabilities from a technological perspective and the skills needed to lead change from a leadership standpoint. The successful combination of these dimensions will not only boost labor productivity but also strengthen the organization's competitiveness. This comprehensive approach involves adopting advanced technologies and cultivating the ability to effectively lead and manage necessary changes in organizational structure and culture.

The unit of analysis for this research is one of the financial institutions with the largest market share in Peru, which began its digital transformation

process in 2015. Given the challenges of digital transformation, it is understandable that the COVID-19 pandemic accelerated the digitization process within the banking industry to better meet customer needs. However, there has been resistance to change on the operational side, resulting in low engagement and widespread dissatisfaction with the current process. This situation highlights the difficulties associated with digital transformation and the implementation of banking processes. These barriers reflect the critical need to address not only the technological dimensions but also the cultural and organizational aspects to achieve a successful transition. Identifying and understanding these barriers is essential for designing strategies that promote the successful adoption of digital practices and improve satisfaction throughout all stages of digital transformation in the banking sector.

From an international perspective, Pachas (2017) concluded that the banking sector is at a critical juncture, requiring a comprehensive reinvention and resolute adoption of digital transformation. The failure of banks to participate in this process increases the likelihood of obsolescence, which could ultimately lead to their disappearance from the financial landscape. In an era of rapid change, resistance to digital transformation can result in a loss of relevance and competitiveness for banks. This situation highlights the urgent need for proactive adaptation to ensure their sustainability and evolution in today's financial environment. The author emphasizes that banks must embrace this new era and promote it through organizational culture to strengthen stability in a changing market.

In turn, Martínez (2018) provides a detailed analysis of the significance of digitalization for companies and its far-reaching effects. The research confirmed that training is essential for empowering personnel to effectively integrate companies into the digital world. It highlights that incorporating digital training into corporate culture is essential for achieving substantial benefits, not only in terms of productivity but also in terms of knowledge acquisition, adaptability, and business predictability. Implementing effective digital training has been shown to enhance operational efficiency, strengthen a company's ability to anticipate and respond to technological changes, support the acquisition of relevant knowledge, and promote the agility required to address the challenges of the contemporary business environment. In this context, digital training leads to immediate improvements and lays the foundation for a proactive and resilient corporate culture in the digital era.

Meanwhile, Lorenzo (2022) concluded that digital transformation requires models that encompass both technical and organizational aspects. It involves leveraging novel insights and various factors to rethink how organizations compete and meet customer needs. The study emphasizes that digital transformation should be integrated into management systems, strategies, and the workforce. From a holistic perspective, any company that aspires to reach digital maturity must commit to a significant cultural change. This commitment entails adopting new technologies and effectively implementing training and knowledge management programs. These initiatives aim to transform employees into proficient digital professionals, fostering a proactive mindset toward innovation. Ultimately, this strategy strengthens the organization's ability to thrive in an increasingly digitized business environment.

Additionally, Muñoz et al. (2019) concluded that corporate culture is a crucial factor in successfully implementing digital transformation. They highlight the need for organizations to address changes in corporate culture to adopt the proposed digital transformation model. Furthermore, Fernández et al. (2019) noted that the digital revolution has altered the operational landscape for large companies, and the banking industry is no exception. This sector is undergoing its own digital transformation driven by customer demands and the need to compete against emerging financial challenges. In this sense, financial institutions must reform their culture, modify internal and external processes, and strengthen their role in advancing digital financial education for partners and users.

At the national level, Quiroga (2018) after analyzing one of the most important structural units in Peru, concluded that companies have two options: they may either attempt to emulate the model of this revolution or avoid doing so. The latter option is, however, the least favorable. The research demonstrates that digital transformation is not the sole responsibility of the IT team; instead, it requires leadership to guide these projects and initiatives and effectively communicate them to all employees. According to Quiroga, digital transformation requires the involvement of all professionals within an organization, who must be highly trained to achieve the objectives.

Cabrera and Castillo (2019) reached a similar conclusion, demonstrating that banks recognize the need to change their traditional business models and are beginning to implement transformation

processes to enhance their competitiveness. They stress that human capital plays a vital role in integrating digital technologies, starting with recruiting highly qualified and trained personnel equipped to face this great challenge for financial institutions.

In turn, Casado (2020) identified key obstacles to successful digital transformation, including the lack of essential values such as leadership, commitment from top management, and resistance to change among employees. He further asserted that corporate culture is the cornerstone for any change initiative; without addressing it, no transformation can succeed, as corporate culture shapes individual behavior. Researchers agree that while changing corporate culture can be challenging, it is not impossible and is essential for achieving transformation goals.

Digital transformation is a term frequently used in business, yet its true meaning is often overlooked and increasingly confusing, as noted by Escudero (2020). To truly achieve digital transformation, it is insufficient to rely solely on technical tools; companies must also have operational plans and a vision aligned with their governing rules. According to Escudero, the focus should be on developing internal skills that are directly linked to the digital transformation process.

Based on this understanding, this research study aims to determine the relationship between digital transformation and customer bank usage within the financial institution under study. To facilitate a more detailed analysis, variable 1 (digital transformation) was divided into three dimensions: organizational culture, digital impact, and continuous improvement. Similarly, variable 2 (bank usage) was also divided into three dimensions: liabilities portfolio, assets portfolio, and banking services. The specific objectives were to analyze the relationship between variable 2 and each dimension of variable 1.

This research is theoretically justified, drawing on the work of Martínez (2018) and other authors. It seeks to contribute to the discourse on digital transformation within the field of Business Sciences. This topic is particularly relevant for financial institutions and other companies in Peru, as much work remains to be done in this area. The aim is to provide a clear and concise understanding of digital transformation and its implications for financial institutions.

On a practical level, this research is justified as it helps clarify and better understand the problem, allowing for corrective actions that can raise awareness and encourage surveyed companies to implement digital transformation and improve customer banking processes successfully. Additionally, the findings would be valuable for other institutions in similar fields. Ultimately, the integration of digital transformation and bank usage significantly enhances the relationship between financial institutions and their customers. This not only improves operational efficiency and security but also positions the institution as a leader in the constantly evolving financial industry.

From a methodological perspective, following the framework established by Hernández and Mendoza (2018), the study was correlational. A questionnaire based on the Likert scale was developed and subjected to validity and reliability testing. One limitation of this research study was the reluctance of the company to grant access to its facilities, which hindered our ability to cover more locations. However, through careful coordination, the study was successfully conducted at a branch office with a high volume of customers situated in a central area. This particular agency exemplifies the behavior of a typical branch within the company, which mainly focuses on offering products and services while encouraging as many customers as possible to adopt digital solutions.

### Digital Transformation

Digital transformation is a comprehensive term that refers to the adoption of business processes and practices that enable companies to compete effectively in an increasingly digital society. Definitions focusing solely on the implementation and use of technology overlook the broader scope of digital transformation, which includes organizational structure, strategy, human capital management, and leadership, all of which are more relevant than technology (Rogers, 2016). According to Morales and Velázquez (2023), traditional companies must adapt their policies to the new digital world when undergoing complete digital transformation. These organizations need to recognize that the world has changed, along with marketing channels and customer relationships. This adaptation allows organizations to engage in activities they could not previously pursue, and if they fail to do so, their competitors will seize those opportunities. Alunni and Llambías (2018) view digital transformation as both a business decision and a necessary cultural transformation. In essence, digital transformation is a fundamental aspect of business strategy—

sometimes representing a new strategic direction or business opportunity, highlighting that it must be addressed to advance any strategy or business forward. Therefore, digital transformation embodies a cultural change. Companies that do not recognize this may experience numerous failures.

In this context, digital transformation emerges as an essential factor that emphasizes organizational culture and highlights the vital role of employees in business success. This process enhances customer satisfaction by providing convenient access, personalizing services based on individual data, facilitating instant communication, improving security, providing omnichannel experiences, fostering innovation, and enabling continuous feedback. When analyzed holistically, these elements support the premise that digital transformation significantly and positively impacts customer satisfaction in the banking sector.

### Bank Usage

Tafur (2009) defines “banking” as the extent to which banking services and products are utilized within an economy. Beyond traditional financial products, savings, and loans, more complex financial products such as pension plans and mutual funds also play a major role in the allocation of banking sector resources. In this sense, the concept of banking is related to the degree of penetration in the economy through various service channels and the ease of access and use of resources by individuals. In turn, Tambini et al. (2024) define bank usage as the accessibility and usage of formal financial services—either traditional or digital—via computers or mobile phones. Bank usage aims to enhance competitiveness, reduce poverty, expand financial services, and boost productivity in countries, ultimately contributing to increased financial intermediation and economic stability. According to Maroto and Melle (2020), bank usage reflects the impact of the financial system on economic growth; as the economy grows, public participation in the financial system of a region also tends to increase. This concept also refers to the degree of integration between the real economy sector and the financial sector, primarily concerning the volume of transactions carried out by various entities using different payment platforms and funds provided by financial institutions. Finally, the Superintendencia de Banca, Seguros y AFP (SBS, 2022) and the World Bank (2020) state that bank usage can be assessed by the levels of deposits relative to gross domestic product (GDP). In this regard, Peru significantly surpasses Colombia,



**Table 1. Research Objectives.**

General Objective
Determine the relationship between digital transformation and customer bank usage in a financial institution located in San Isidro district (Lima, Peru) in 2022.
Specific Objectives
<ol style="list-style-type: none"> <li>1. Determine whether there is a positive relationship between organizational culture and customer banking practices in a financial institution located in the San Isidro district (Lima, Peru) in 2022.</li> <li>2. Determine whether there is a positive relationship between digital impact and customer banking practices in a financial institution located in the San Isidro district (Lima, Peru) in 2022.</li> <li>3. Determine if there is a significant relationship between continuous improvement and customer banking practices in a financial institution located in the San Isidro district (Lima, Peru) in 2022.</li> </ol>

Source: Prepared by the authors.

Mexico, and Argentina. However, when comparing the number of accounts held, Peru lags behind many countries in Latin America and around the world; only 53% of adults have a savings account, predominantly those under 30.

Because of the above, it is evident that the effective use of technological tools and, crucially, a thorough digital transformation process within the country's financial institutions are essential for achieving greater bank usage.

## METHODOLOGY

Based on Hernández and Mendoza (2018), the research study had a correlational scope with a quantitative, non-experimental, cross-sectional, examining 40 employees from a banking institution located in the San Isidro district (Lima, Peru). Notably, the sample was a census sample. A questionnaire was the primary instrument for collecting employee perceptions, utilizing a survey method. The questionnaire consisted of 18 questions, nine per variable, each rated on a five-point Likert scale. For the digital transformation variable, dimensions "organizational culture", "digital impact", and "continuous improvement" were considered, while dimensions "liability portfolio", "asset portfolio", and "banking services" were considered were examined for the bank usage variable. Instrument quality and effectiveness were validated by expert judgment from three faculty members from the Business Administration program. Reliability was measured using Cronbach's alpha, yielding 0.824 for the items related to digital transformation and 0.810 for those related to bank usage.

Data analysis involved descriptive and inferential statistics. The normality of the data was assessed using Shapiro-Wilk, which determined that non-parametric statistics were appropriate. Consequently, Spearman's rho was implemented via IBM SPSS Statistics software, version 26.

## OBJECTIVES

The research objectives are summarized in Table 1.

## RESULTS

Gender: Fifty-three percent of the respondents were male, while 47% were female.

Age: Most male participants were in the 25-28 and 29-32 age ranges, with 6 participants in each group. Meanwhile, most female participants were in the 25-28 age range, with a total of 9 participants.

Education level: A significant majority, 75.5%, of the respondents reported holding an undergraduate degree, while 10.5% held a master's degree, 7.6% had a higher technical degree, and 6.4% possessed at least a postgraduate degree.

## Normality Testing

As the sample size was less than 50, the Shapiro-Wilk was employed for testing the variables under study. The results obtained are detailed below in Table 2.

**Table 2. Normality Testing.**

	Shapiro-Wilk		
	Statistic	df	Sig.
Digital Transformation	0.901	40	0.002
Customer Bank Usage	0.901	40	0.002
Organizational Culture	0.892	40	0.001
Digital Impact	0.891	40	0.001
Continuous Improvement	0.887	40	0.001

Note: Lilliefors Significance Correction.

Source: Prepared by the authors.

**Table 3. Research Hypotheses.**

General Hypothesis	
There is a direct and significant relationship between digital transformation and customer bank usage in a financial institution located in the San Isidro district (Lima, Peru) in 2022.	
Specific Hypotheses	
1. There is a positive relationship between organizational culture and customer banking practices in a financial institution located in the San Isidro district (Lima, Peru) in 2022. 2. There is a positive relationship between digital impact and customer banking practices in a financial institution located in the San Isidro district (Lima, Peru) in 2022. 3. There is a significant relationship between continuous improvement and customer banking practices in a financial institution in the San Isidro district (Lima, Peru) in 2022.	

Source: Prepared by the authors.

**Table 4. Hypothesis Testing.**

	Variables	N	Rho	p-value < 0.05	Interpretation
General Hypothesis	Variable 1: Digital transformation	40	0.564	0.002	Moderate and positive correlation
	Variable 2: Customer bank usage				
	Dimensions of Variable 1 vs. Variable 2	N	Rho	p-value < 0.05	Interpretation
Specific Hypotheses	Organizational culture and banking practices	40	0.516	0.001	Moderate and positive correlation
	Digital impact and banking practices	40	0.552	0.001	Moderate and positive correlation
	Continuous improvement and banking practices	40	0.547	0.001	Moderate and positive correlation

Source: Prepared by the authors.

All significance values were less than ( $p < 0.05$ ). Therefore, a nonparametric test is required to test the hypotheses. Consequently, Spearman's rho coefficient was selected. Additionally, the confidence level was set at 95%, with an alpha ( $\alpha$ ) of 0.05.

### Hypothesis Testing

Table 3 outlines the hypotheses proposed for this research study.

As previously stated, Spearman's rho correlation was used for the hypothesis testing. Both the general hypothesis, as well as the specific hypotheses, demonstrated a strong positive correlation, as shown in Table 4.

### DISCUSSION

Based on the results, the general alternative hypothesis is accepted, as evidenced by Spearman's rho test, which obtained a value of 0.564 with a significance level of 0.002, demonstrating a positive relationship between the variables analyzed. Similarly, Vargas (2021) supports the idea that there

is a relationship between digital transformation and bank usage. In his study, he examined the variables "digital bank usage" and "financial inclusion", finding a high positive Pearson correlation coefficient of 0.982 with a significance of 0.000. In this context, Vargas accepted his alternative hypothesis, concluding that digital banking is significantly related to financial inclusion, and recommended aligning this process with cultural change, technology, and human resources.

In the banking agency under study, it was found that the staff members do not clearly understand the concept of digital transformation, as no efforts have been made to integrate it into the organizational culture. Additionally, they are unaware of the effect digital transformation and continuous improvement in digital processes can have in the medium and long term, particularly in enhancing bank usage levels. Digital transformation has emerged as an essential element for the sustainable growth of financial institutions today. The interaction between financial institutions and their customers has expanded beyond conventional transactions, becoming essential for strengthening relationships with users.

This significant change is driven by innovative digital solutions tailored to customers to promote banking usage. The availability of accessible and user-friendly platforms simplifies processes and provides a comprehensive experience that adapts to modern needs. The convenience of making transactions and accessing financial services from any location significantly strengthens the connection between banks and their customers.

Regarding specific hypothesis No. 1, the results from Spearman's rho test indicate a moderate positive correlation with a value of 0.516 and a significance level of 0.001, thereby supporting the hypothesis. Vargas (2021) supports this conclusion stating that "organizational culture" contributes to greater "bank usage" within the financial system. He found that a strong organizational culture reduces resistance to change across all processes, positively impacts outcomes, and improves operational efficiency in achieving objectives. However, in the banking entity analyzed, it became apparent that not all departments are aligned with the corporate culture. Some employees exhibit notable resistance to change, a lack of adaptability and satisfaction, and insufficient commitment to activities related to digital transformation and promoting customer bank usage. Furthermore, Reyes and Molina (2020) explored the dynamics within three different areas of a company and concluded that organizational culture must encompass essential elements such as leadership styles and teamwork. These elements are crucial for developing new strategies that could lessen resistance to change, boost motivation, and enhance adaptation and commitment among professionals.

Regarding specific hypothesis No. 2, the results from Spearman's rho test indicate a positive correlation with a value of 0.552 and a  $p$ -value of less than 0.05, thereby supporting the hypothesis. These results align with Alvarez (2018), who observed that many companies struggle with low productivity and operational efficiency, highlighting the need to restructure processes to improve both the productivity and effectiveness of professionals. The financial agency examined has not achieved the desired digital impact, as evidenced by the levels of bank usage obtained through digital media during the specified period. Therefore, they must implement changes in their continuous improvement process. For effective continuous improvement in digital transformation to produce a greater impact, should facilitate the creation of new products and services, be implemented across various areas, and enhance operational efficiency.

Regarding specific hypothesis No. 3, the results from Spearman's rho test indicated that the hypothesis was accepted with a value of 0.547 and a significance level of 0.001. In this regard, Jurburg et al. (2015) agree that "continuous improvement" is the key to achieving success in the business world. The greatest challenge in this pursuit of excellence is to engage all employees and foster a continuous commitment to improvement. The study involved analyzing companies with varying levels of continuous improvement systems. The findings revealed that the leading companies are those that implement ongoing training, foster better communication across departments, and make process changes to encourage participation from all professionals. We concur with Jurburg et al. (2015) that the foundation of success for companies lies in continuous improvement processes, as evidenced by the correlation discovered in this research. Furthermore, it should be noted that the periodic planning process and ongoing review of the systems to ensure continuous improvements, along with necessary adjustments, have made a significant contribution to enhancing customers' banking operations.

## CONCLUSIONS

From the research conducted, we conclude that there is a significant relationship between digital transformation and customer bank usage. This relationship is moderate, and several key challenges have been identified for improvement: the organizational culture among employees, the impact of digital initiatives, and the ongoing enhancement of current digital transformation processes aimed at increasing bank usage. Moreover, digital transformation not only improves accessibility but also enhances operational efficiency by automating processes. This benefits financial institutions and leads to more efficient and competitive financial services for customers. In terms of security, implementing advanced encryption and authentication technologies helps protect sensitive customer information, fostering trust and long-term loyalty. Additionally, transparency in data management and privacy further strengthens the trusting relationship between financial institutions and their customers.

Regarding specific objective 1, a direct relationship has been determined between organizational culture and customer bank usage. Among the main challenges are resistance to change, low satisfaction levels among employees, and a lack of adaptation,



as well as their lack of commitment to the factors outlined in the research objective. Therefore, to improve the level of bank usage, it is essential to enhance the organizational culture of the agency in question and address the relevant dimensions.

Regarding specific objective 2, a moderate correlation has been determined between digital impact and customer bank usage. One of the main challenges is operational efficiency, which has hindered the generation of significant improvements in productivity indicators and client retention during the specified period.

Lastly, regarding specific objective 3, a relationship has been determined between continuous improvement and customer bank usage. It was found that the better the continuous improvement process in the agency, the more favorable the bank usage results. The critical issues identified in these continuous improvement processes include inadequate training, poor communication between departments, and lengthy procedures. Therefore, these are the key areas the financial institution should focus on to enhance its continuous improvement efforts and ultimately achieve higher levels of bank usage.

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## Authors' contribution

Luis Antonio Cumpa Vila (first author): Investigation, formal analysis, and writing (review & editing).

Antonio Roberto Huachaca Urbina (co-author): Investigation, methodology, and writing (original draft).