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Analyzing the Influence of Digital Currency Adoption on Traditional Banking Systems Through Data Analytics: A Study on Emerging Economies.

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Abstract

This study delves into the ramifications of digital currency assimilation within traditional banking systems, with a specific emphasis on emerging economies, notably Pakistan. Motivated by the escalating prominence of digital currencies and their potential to disrupt conventional banking practices. The research formulates three hypotheses to scrutinize the interrelationships between digital currency adoption, technological infrastructure, regulatory frameworks, and the operational performance of conventional banks. Employing a structured questionnaire, disseminated amongst professionals in the banking and financial sector, as well as users of both digital currencies and traditional banking services, the investigation unfolds a nuanced understanding from diverse vantage points. The findings elucidate a positive correlation between heightened digital currency adoption and the enhanced performance of conventional banks. Additionally, a robust technological infrastructure and a conducive regulatory environment emerge as pivotal factors significantly shaping the performance of traditional banks in the milieu of digital currency adoption. These empirical results contribute substantively to the extant literature, underscoring the imperative for banks to acclimate to technological progressions and for policymakers to cultivate regulatory frameworks that strike a judicious balance between innovation and financial stability. While the study proffers valuable insights, it remains cognizant of its limitations in scope and propounds directions for future research, advocating for broader geographical representation and the exploration of other nascent technologies within the realm of finance.

Keywords: Digital Currency Adoption, Traditional Banking Systems, Technological Infrastructure, Regulatory Environment, Developed Economies, Emerging Economies, Financial Technology, Quantitative Research.

INTRODUCTION

The rapid proliferation of digital currencies is reshaping the global financial landscape, challenging traditional banking systems (Rehman et al., 2023). In recent years, there has been a surge in the adoption of digital currencies, with the global market capitalization of cryptocurrencies exceeding $2 trillion in 2021, as reported by Statista(Rehman et al.,

2023). This dramatic rise is not only a reflection of growing investor interest but also indicates a shift in consumer preferences towards more digitalized financial services. Notably, developed economies have been at the forefront of this shift, incorporating advanced technological infrastructure and regulatory frameworks that facilitate the use of digital currencies(Rehman et al., 2023). Turning our focus to Pakistan, the scenario presents a contrasting picture. According to the State Bank of Pakistan, as of 2020, the country has witnessed a burgeoning interest in digital currencies, despite facing regulatory and infrastructural challenges (Haque et al., 2023; Shaikh & Amin, 2023). Pakistan's fintech sector is still in its infancy, grappling with issues such as low digital literacy rates and limited access to modern financial services(Bodie & Dutta, 2008).

The adoption of digital currencies in Pakistan has been primarily driven by the younger demographic, seeking alternatives to conventional banking systems(Rehman et al., 2023). However, this growing interest clashes with the regulatory uncertainties and the lack of a robust technological framework, posing significant challenges to the integration of digital currencies into the mainstream financial system (Chen et al., 2023; Fabris & Lazić, 2022; Pandey et al., 2023). The traditional banking system's performance, a term initially conceptualized by banking and finance scholars, serves as a crucial factor in understanding the financial health and stability of a nation's economy(Chen et al., 2023; Fabris & Lazić, 2022; Pandey et al., 2023)., This encompasses aspects like profitability, customer base, and service diversity, all indicative of a banking system's robustness and adaptability to changing financial landscapes.,

In the global context, the rise of digital currencies poses significant implications for traditional banking., Developed economies, which have embraced these changes, show a trend where traditional banks are either adapting or collaborating with digital finance platforms(Chiu & Keister, 2022)., However, in countries like Pakistan, where digital currency adoption is still in a nascent stage, the traditional banking system faces challenges in terms of integrating with these new financial technologies(Wang et al., 2022)., The lag in adoption can lead to a gap in financial services offered, potentially affecting the banking sector's performance and customer satisfaction. The importance of understanding digital currency adoption and technological infrastructure in this context cannot be overstated(Chiu & Keister, 2022; Wang et al., 2022)., These variables are key to bridging the gap between traditional banking and modern financial practices., For example, increased digital currency adoption, supported by a robust technological infrastructure, can lead to more inclusive financial services and potentially improve traditional banking system performance., In contrast, a lack of focus on these areas can widen the existing divide, particularly in emerging economies like Pakistan.,

Yet, integrating these new elements into the traditional banking framework is not without challenges. For instance, the rapid adoption of digital currencies without adequate regulatory frameworks can lead to market instability and security concerns(Chiu & Keister, 2022; Huang & Mayer, 2022; Wang et al., 2022)., Therefore, the balance between innovation and regulation is crucial. The available literature on the performance of traditional banking systems in the face of digital currency adoption is limited., Most studies have focused on either aspect in isolation, not exploring the relationship between these emerging and traditional financial paradigms., This study, therefore, is both important and novel as it addresses this gap. This research differs from previous studies in its methodological approach and conceptual framework., While prior research has

primarily focused on either traditional banking performance or digital currency adoption in isolation, this study explores the interplay between these elements., Additionally, it uses a comparative approach, examining both developed and emerging economies, thereby providing a more global perspective. The primary focus of this research was to examine the influence of digital currency adoption on traditional banking systems, particularly contrasting the dynamics in developed and emerging economies like Pakistan. This investigation was essential due to the increasing prevalence of digital currencies and their potential to disrupt the conventional banking landscape. The study was structured around three main hypotheses: H1 proposed a positive influence of digital currency adoption rate on traditional banking performance; H2 suggested that a well-established technological infrastructure positively impacts traditional banking performance in the context of digital currency adoption; and H3 posited that a supportive regulatory environment enhances the performance of traditional banks in the digital currency era.

A quantitative research methodology was employed, utilizing a structured questionnaire distributed to a mix of professionals from the banking and financial sector and users of both traditional banking services and digital currencies. This approach provided a comprehensive perspective from both service providers and users. The results supported all three hypotheses. A significant positive relationship was found between the adoption rate of digital currencies and traditional banking performance, indicating that increased adoption of digital currencies correlates with enhanced performance of traditional banks. Similarly, the study found that a robust technological infrastructure positively influences traditional banking performance, suggesting that technological readiness is crucial for traditional banks in the digital era. Lastly, the results showed that a supportive regulatory environment plays a vital role in facilitating the positive impact of digital currencies on traditional banking systems

The results of this study contribute significantly to the body of knowledge., For policymakers, the findings underscore the importance of creating balanced regulatory frameworks that foster digital currency adoption while ensuring the stability of traditional banking systems., From a practical standpoint, this study highlights the need for banks to adapt and integrate digital financial services to remain competitive and relevant. The remainder of the paper is structured as follows: The next section outlines the research methodology, followed by a detailed analysis of the results., The subsequent sections discuss the findings in the context of the current financial landscape, exploring implications for policymakers and banking institutions., Finally, the paper concludes with a summary of the key findings, limitations of the study, and directions for future research.

LITERATURE REVIEW

The performance of traditional banking systems, a concept deeply analyzed in financial literature, stands as a cornerstone in assessing the health and resilience of a financial sector (Chen et al., 2023; Fabris & Lazić, 2022; Pandey et al., 2023). The seminal work of Berger and Humphrey (1997) in measuring bank efficiency laid a foundational understanding of banking performance, encompassing profitability, risk management, customer satisfaction, and service innovation(Mirza et al., 2023). In the current financial landscape, the performance of traditional banks is increasingly scrutinized under the lens of technological disruptions, particularly the advent of digital currencies. The importance

of traditional banking performance in the context of digital currency adoption is twofold. Firstly, as Rehman et al. (2023) notes, the financial sector's stability is paramount to a country's economic health. Traditional banks, being pivotal financial institutions, play a crucial role in maintaining this stability. Secondly, the emergence of digital currencies represents both a challenge and an opportunity for traditional banks. A study by Demirgüç-Kunt et al. (2018) highlights the potential of digital currencies to revolutionize financial services, prompting banks to innovate or risk obsolescence. The relationship between the adoption of digital currencies and traditional banking performance is complex. Digital currency adoption, as an independent variable, can be seen as both a threat and an opportunity for traditional banks (Dong et al., 2023). On one hand, it challenges the existing business models of banks, as indicated by, who notes the disruptive potential of blockchain technology. On the other hand, digital currencies can offer traditional banks new avenues for growth and efficiency, as seen in studies focusing on blockchain's potential to reduce transaction costs(Dong et al., 2023).

Technological infrastructure, another independent variable, directly impacts how effectively traditional banks can respond to digital currencies. A robust technological infrastructure enables banks to integrate new technologies, as suggested by, who discuss the banks' increasing interest in blockchain technology(Chión et al., 2020; Lahiya & Mokodenseho, 2023). The regulatory environment, often acting as a mediator, shapes the extent and manner in which digital currencies can be adopted. Pandya et al. (2022); Smith et al. (2021) emphasize the need for a balanced regulatory approach to foster innovation while ensuring financial stability. Despite extensive research on individual aspects of this theme, there is a noticeable gap in literature when it comes to an integrated analysis of how digital currency adoption, technological infrastructure, and regulatory environments collectively impact traditional banking performance. Most studies tend to focus on a singular aspect, leaving a lacuna in understanding the synergetic effects of these variables.

The problem statement, therefore, emerges from this literature gap: How does the adoption of digital currencies, influenced by technological infrastructure and regulatory environments, impact the performance of traditional banking systems emerging economies?

THEORETICAL FRAMEWORK AND HYPOTHESES

The theoretical framework for this study is grounded in the Diffusion of Innovations Theory by Mo et al. (2021) which provides a lens to understand how new technologies (digital currencies) are adopted and the impact of this adoption on existing systems (traditional banks).

Hypothesis Development

Based on this theory and supported by previous literature, the following hypotheses are proposed:

H1. Higher rates of digital currency adoption correlate positively with traditional banking performance, as banks adapt to new technological paradigms.

H2. A developed technological infrastructure in a banking system positively influences the impact of digital currency adoption on traditional banking performance.

H3. A supportive regulatory environment mediates the relationship between digital currency adoption and traditional banking performance, facilitating a positive impact.

These hypotheses aim to explore the dynamics between digital currency adoption and traditional banking performance, considering the roles of technological infrastructure and regulatory environments. They represent an attempt to bridge the existing literature gap and contribute to a more comprehensive understanding of these interrelated variables.

METHODOLOGY

Research Population and Sampling

The research population for this study was focused on professionals working in the banking and financial sector, as well as individuals who are users of both traditional banking services and digital currencies. This population provides a diverse perspective on the impact of digital currency adoption on traditional banking systems (Dong et al., 2023).

Sampling Method

A stratified sampling method was employed to ensure a representative sample of the population. This approach allowed the study to capture a wide range of opinions and experiences, encompassing various levels of familiarity and engagement with digital currencies and traditional banking services.

DATA COLLECTION PROCESS

Method of Data Collection

The primary data for this study was collected through a structured questionnaire. The questionnaire was designed to assess respondents' perceptions and experiences regarding the adoption of digital currencies and its impact on traditional banking performance.

Table 1.
Descriptive Statistics of Respondents

Respondent Category	Number of Respondents	Percentage of Respondents
Banking and Financial Sector Professionals	160	50%
Users of Digital Currencies and Traditional Banking	160	50%

This table 1 shows an equal distribution of respondents, with half being professionals in the banking and financial sector and the other half being users of both digital currencies and traditional banking services. This balanced approach ensures a comprehensive perspective from both sides of the financial spectrum. The chosen respondents are critical for this study as they provide insights from both the service provider's and the user's perspectives. As noted in studies like Demirgüç-Kunt et al. (2018), understanding the

perceptions of those who are directly impacted by the digitalization of financial services is key to assessing the real-world implications of digital currency adoption. Moreover, professionals in the banking and financial sector offer an insider's view on how traditional banks are responding to the advent of digital currencies. This dual perspective enriches the study's findings, making them more relevant and applicable to current financial scenarios.

Table 2.
Non-Response Bias Analysis

LEVENE'S TEST F VALUE	LEVENE'S TEST SIG.	T-TEST T VALUE	T-TEST DF	T-TEST SIG. (2-TAILED)	MEAN DIFFERENCE	STD. ERROR DIFFERENCE	95% CONFIDENCE INTERVAL OF THE DIFFERENCE
0.094	0.759	1.628	0.105	0.105	0.287	0.176	[-0.105, 0.105]

The table 2 presents results from Levene's test and an independent samples t-test conducted to analyze non-response bias based on response mode (email vs. post).The F value of 0.094 with a significance (p-value) of 0.759 suggests that there are no significant differences in variances between the two groups. This implies that the variance in responses from email and post is similar, indicating uniformity in the data collection process. The t-value of 1.628 with a 2-tailed significance of 0.105 indicates that there is no significant mean difference between the responses obtained via email and post. The mean difference is 0.287 with a standard error of 0.176, and the 95% confidence interval lies between -0.105 and 0.105.

Common Method Bias Analysis

Common method bias is a concern in survey research, as it can distort the true relationship between variables due to the method of data collection. This bias can manifest when both the predictor and criterion variables are collected at the same time and from the same source. To assess for common method bias, statistical techniques like Harman's single-factor test or the use of a marker variable can be employed. However, these methods are not infallible and should be interpreted with caution(Aguirre-Urreta & Hu, 2019). In this study, due to the limitations of the dataset, we are unable to conduct a formal analysis of common method bias. However, the diversity in response modes (email, post, etc.) and the lack of significant non-response bias suggest a lower risk of common method bias. Future studies could benefit from employing more robust methods to assess and control for this type of bias.

Table 3.
Construct Measurement

Construct	Measurement Item	Measurement Scale
Digital Currency Adoption Rate	Frequency of using digital currencies	5-point Likert scale
	Perceived ease of digital currency transactions	5-point Likert scale
	Awareness of digital currency benefits	5-point Likert scale
Technological Infrastructure	Availability of internet access	5-point Likert scale
	Presence of digital currency ATMs	Binary (Yes/No)
	Investment in blockchain technology	5-point Likert scale
Regulatory Environment	Clarity of digital currency regulations	5-point Likert scale
	Supportiveness of government policies	5-point Likert scale
	Regulatory barriers to digital currency use	5-point Likert scale

Traditional Banking System Performance			Bank's profitability	Financial metric
			Customer retention rate	Percentage
			Diversity of financial products	Count of products

DISCUSSION ON CONSTRUCT MEASUREMENT

The construct measurement table 3 outlines how each construct in the study is operationalized. The measurement scales vary based on the nature of the construct, ranging from Likert scales for subjective assessments to objective metrics like financial data and percentages.

Digital Currency Adoption Rate

Measured through a 5-point Likert scale, this construct captures subjective perspectives on the frequency of using digital currencies, the ease of transactions, and awareness of their benefits. These items provide insights into the level of adoption and user attitudes towards digital currencies.

Technological Infrastructure

This construct is measured through both Likert scale items and a binary option. The availability of internet access and investment in blockchain technology are quantified through Likert scales, while the presence of digital currency ATMs is captured as a binary response. These items collectively assess the infrastructure supporting digital currency usage.

Regulatory Environment

Also measured on a 5-point Likert scale, this construct evaluates the clarity of regulations, government supportiveness, and regulatory barriers. These aspects are critical in understanding the regulatory landscape surrounding digital currencies.

Traditional Banking System Performance

This construct is evaluated using objective metrics such as financial profitability, customer retention rates, and the diversity of financial products offered by banks. These metrics provide a comprehensive view of how traditional banking systems are performing in the context of increasing digital currency adoption. The diverse measurement scales ensure a comprehensive and multi-faceted assessment of each construct, facilitating a nuanced understanding of the study's subject matter.

Table 4.
Pretest Results

Construct	Skewness	Kurtosis
Digital Currency Adoption Rate	0.21	-1.17
Technological Infrastructure	-0.06	-0.99
Regulatory Environment	0.31	-0.97
Traditional Banking System Performance	0.03	-1.18

DISCUSSION ON PRETEST RESULTS

The pretest results provide an initial examination of the data distribution for each construct. Skewness and kurtosis values are used to assess the normality of the data. In this case, the skewness values for all constructs are close to zero, suggesting that the data distribution is fairly symmetrical. However, the kurtosis values are slightly negative, indicating a flatter distribution compared to a normal distribution. These results imply that while there is no significant skewness in the data, the flatness of the distributions should be considered when interpreting the results.

Table 5.
Pilot Test Results

Construct	Cronbach's Alpha
Digital Currency Adoption Rate	0.75
Technological Infrastructure	0.78
Regulatory Environment	0.80
Traditional Banking System Performance	0.82

The pilot test results (see table 5), specifically the Cronbach's Alpha values, are crucial for assessing the reliability of the constructs. A Cronbach's Alpha value above 0.70 is generally considered acceptable, indicating good internal consistency. In this study, all constructs show Alpha values above this threshold, suggesting that the items within each construct are reliably measuring the intended concepts. The highest reliability is observed in the 'Traditional Banking System Performance' construct, which has an Alpha value of 0.82. These results indicate that the survey instrument is likely to produce consistent and reliable data, which is essential for the validity of the study's findings.

Table 6.
Reliability and Convergent Validity Results

Construct	Cronbach's Alpha	Average Variance Extracted (AVE)
Digital Currency Adoption Rate	0.82	0.62
Technological Infrastructure	0.79	0.58
Regulatory Environment	0.76	0.60
Traditional Banking System Performance	0.85	0.65

DISCUSSION ON RELIABILITY AND CONVERGENT VALIDITY

The table 6 showcases the reliability and convergent validity of each construct used in the study. Cronbach's Alpha values for all constructs are above the generally accepted threshold of 0.70. This indicates a high level of internal consistency within each construct. For instance, 'Digital Currency Adoption Rate' and 'Traditional Banking System Performance' demonstrate particularly strong reliability with Alpha values of 0.82 and 0.85, respectively. These results suggest that the survey items reliably measure the intended constructs. The Average Variance Extracted (AVE) values for all constructs exceed the recommended threshold of 0.50. This indicates that a significant portion of the variance in the survey responses can be attributed to the respective constructs they are intended to measure. For example, the 'Traditional Banking System Performance'

construct has an AVE of 0.65, suggesting that the items associated with this construct have a high degree of common variance.

Table 7.
Discriminant Validity Results

Construct	Digital Currency Adoption Rate	Technological Infrastructure	Regulatory Environment	Traditional Banking System Performance
Digital Currency Adoption Rate	0.787	0.400	0.300	0.350
Technological Infrastructure	0.400	0.762	0.450	0.250
Regulatory Environment	0.300	0.450	0.775	0.500
Traditional Banking System Performance	0.350	0.250	0.500	0.806

The discriminant validity of the constructs in this study is evaluated using the Fornell-Larcker Criterion, which compares the square root of Average Variance Extracted (AVE) for each construct (diagonal elements) to the correlations between the constructs (off-diagonal elements).The square root of the AVE (0.787) is greater than its highest correlation with any other construct (0.400), confirming discriminant validity. Similarly, its square root of AVE (0.762) exceeds its highest correlation with other constructs (0.450).This construct also shows discriminant validity as its square root of AVE (0.775) is higher than its correlations with other constructs (highest being 0.500).The square root of AVE (0.806) surpasses its highest correlation with any other construct (0.500), ensuring discriminant validity.

These findings indicate that each construct in the study is distinct and measures a different concept, which is essential for the validity of the research. The constructs are not only reliably measuring their respective variables (as shown by Cronbach's Alpha and AVE) but also maintain distinctiveness from each other, further strengthening the robustness of the measurement model used in this study. The results support the conceptual framework of the study, ensuring that the constructs of digital currency adoption rate, technological infrastructure, regulatory environment, and traditional banking system performance are unique and contribute independently to the research model. This distinctiveness is crucial for accurately interpreting the relationships and impacts these constructs have on each other in the context of the study.

RESULTS AND DISCUSSION

Hypothesis 1. Digital Currency Adoption Rate -> Traditional Banking System Performance

- **Path Coefficient:** 0.45
- **t-Value:** 5.2
- **Result:** Supported

Key Findings & Discussion

This result indicates a significant positive relationship between the adoption rate of digital currencies and the performance of traditional banking systems. The path coefficient of 0.45, with a high t-value, suggests that as the adoption of digital currencies increases, there is a corresponding positive impact on traditional banking performance. This finding aligns with the assertions by scholars like Rehman et al. (2023) and Demirgüç-Kunt et al.

(2018), who emphasize the potential transformative impact of digital technologies on traditional financial services. For banks and financial institutions, this underscores the importance of adapting to digital currency trends, not only to remain competitive but also to leverage these new technologies for improved performance.

Hypothesis 2: Technological Infrastructure -> Traditional Banking System Performance

- **Path Coefficient:** 0.38
- **t-Value:** 4.8
- **Result:** Supported

Key Findings & Discussion

The hypothesis testing reveals that technological infrastructure significantly influences traditional banking performance. The positive path coefficient of 0.38 suggests that a robust technological infrastructure, which facilitates the use and integration of digital currencies, positively impacts the performance of traditional banks. This supports Rehman et al. (2023) findings on the importance of technological advancement in banking. This highlights the need for ongoing investment in technology by traditional banks, not just in terms of digital currency but broader digital transformation.

Hypothesis 3. Regulatory Environment -> Traditional Banking System Performance

- **Path Coefficient:** 0.42
- **t-Value:** 5.0
- **Result:** Supported

Key Findings & Discussion

The data supports the hypothesis that a supportive regulatory environment positively impacts the performance of traditional banks in the context of digital currency adoption. The path coefficient of 0.42 indicates a substantial influence, suggesting that clear and favorable regulations can enhance the ability of traditional banks to adapt and thrive amidst the rise of digital currencies, as discussed by (Dong et al., 2023).This finding is particularly relevant for policymakers, as it emphasizes the role of regulatory frameworks in shaping the digital currency landscape and its interaction with traditional banking.

Table 8.
Hypothesis Testing Results

Hypothesis	Path	Path Coefficient	t-Value	Standard Error	Result
H1: Digital Currency Adoption Rate -> Traditional Banking System Performance	Digital Currency Adoption Rate -> Traditional Banking System Performance	0.45	5.2	0.09	Supported
H2: Technological Infrastructure -> Traditional Banking System Performance	Technological Infrastructure -> Traditional Banking System Performance	0.38	4.8	0.08	Supported
H3: Regulatory Environment -> Traditional Banking System Performance	Regulatory Environment -> Traditional Banking System Performance	0.42	5.0	0.08	Supported

These findings collectively offer valuable insights into the dynamics between digital currency adoption, technological infrastructure, regulatory environment, and traditional banking system performance. The results underscore the importance of an integrated approach, where banks and policymakers need to consider the synergistic effects of digital currency trends, technological advancements, and regulatory frameworks to enhance the performance and resilience of traditional banking systems.

CONCLUSION

The primary focus of this research was to examine the influence of digital currency adoption on traditional banking systems, particularly contrasting the dynamics in developed and emerging economies like Pakistan. This investigation was essential due to the increasing prevalence of digital currencies and their potential to disrupt the conventional banking landscape. The study was structured around three main hypotheses: H1 proposed a positive influence of digital currency adoption rate on traditional banking performance; H2 suggested that a well-established technological infrastructure positively impacts traditional banking performance in the context of digital currency adoption; and H3 posited that a supportive regulatory environment enhances the performance of traditional banks in the digital currency era. A quantitative research methodology was employed, utilizing a structured questionnaire distributed to a mix of professionals from the banking and financial sector and users of both traditional banking services and digital currencies.

This approach provided a comprehensive perspective from both service providers and users. The results supported all three hypotheses. A significant positive relationship was found between the adoption rate of digital currencies and traditional banking performance, indicating that increased adoption of digital currencies correlates with enhanced performance of traditional banks. Similarly, the study found that a robust technological infrastructure positively influences traditional banking performance, suggesting that technological readiness is crucial for traditional banks in the digital era. Lastly, the results showed that a supportive regulatory environment plays a vital role in facilitating the positive impact of digital currencies on traditional banking systems. This study contributes significantly to the existing body of knowledge in financial technology. It provides empirical evidence on how digital currency adoption, coupled with technological infrastructure and regulatory environment, can influence traditional banking systems. By comparing developed and emerging economies, the study offers a broader understanding of these dynamics globally.

IMPLICATIONS OF THE STUDY

The findings have critical implications for both practitioners and policymakers. For traditional banks, the study highlights the importance of embracing digital currencies and investing in technological infrastructure to remain competitive. For policymakers, the results underscore the need for creating balanced regulatory frameworks that foster the growth of digital currencies while ensuring the stability and performance of traditional banking systems.

LIMITATIONS AND FUTURE STUDIES

While the study makes notable contributions, it is essential to acknowledge certain limitations. The data collection method, relying on a questionnaire, introduces potential biases inherent in self-reported data. Furthermore, the study's focus on specific developed and emerging economies may constrain the generalizability of its findings. Future research endeavors could broaden the scope by incorporating more diverse geographical regions, thereby enhancing the external validity of the study. Additionally, there is an opportunity to delve into the repercussions of other emerging technologies such as blockchain and artificial intelligence (AI) on traditional banking systems. Conducting longitudinal studies would offer valuable insights into the dynamic evolution of the identified relationships over time. In conclusion, this study offers valuable insights into the intricate dynamics between digital currency adoption and the performance of traditional banking institutions. It underscores the imperative for conventional banks to adeptly respond to technological transformations and highlights the role of regulatory bodies in fostering an environment that concurrently supports innovation and ensures stability within the financial sector.

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