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Effect of Digitalisation on Bank's Financial Performance in Pakistan

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ABSTRACT

Digitisation has been the most debated topic in the corporate world over the last few decades, with many people wondering how it may be used to improve performance. This study discovers the connection between digitisation and monetary (financial) performance by categorising digitisation into three parts: adoption pace, adoption scope, and overall company digital orientation of 36 banks listed in PSX. Financial performance is calculated by Return on asset and return on equity. Moreover, the social media arena has evolved into a prevalent position for communication, networking, and information exchange. Many banks use these platforms to find marketing and commercial possibilities. In order to investigate Pakistani banks listed on the stock exchange of Pakistan, Stata software is employed. Despite the lack of statistical significance, the study discovers counterintuitive digitalisation trends that may damage Pakistan banks, depending on the digital channels employed. This has a variety of consequences for practitioners as well as prospects for future study. It also identifies alternative digitisation solutions for the financial sector.

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1. Introduction

Along with the rise of the Internet, a range of devices, such as processors, tablets, and cell phones, have been extensively produced and accepted by businesses. Various commercial firms that want to thrive must adjust to this reality. Indeed, digitalization and technology adoption have captured the attention of managers and policymakers, making headlines in newspapers, journals, and professional conferences. Digitalization has opened up new opportunities for businesses, which in turn has necessitated reevaluating their existing business models and operational methods. Alternatively, businesses may choose to concentrate on identifying future market prospects (Bouwman, Nikou, & de Reuver, 2019; Dasgupta, Shrein, & Gupta, 2019). Regional banks, founded to help the regional economy in developing nations such as Indonesia, are presently under pressure in the banking business (Bastari, Eliyana, Syabarrudin, Arief, & Emur, 2020). The banking industry is the backbone of the Pakistani financial system, and several adverse aspects beset it. One such driver is the IT revolution. In today's world, technology assistance is perilous to the smooth process of the banking industry. Technology has significantly enhanced the banking industry's operating efficiency. Pakistan has implemented a variety of solutions to facilitate financial transfers. The banking industry is also highly essential and critical in the growth of the Pakistani economy. The application of technology has resulted in increased penetration, production, and efficiency. Banking is becoming essential to financial activity, and digitization in Pakistan's banking industry must be improved. The study concentrated on the impact of banking automation on the financial performance of the banking sector.

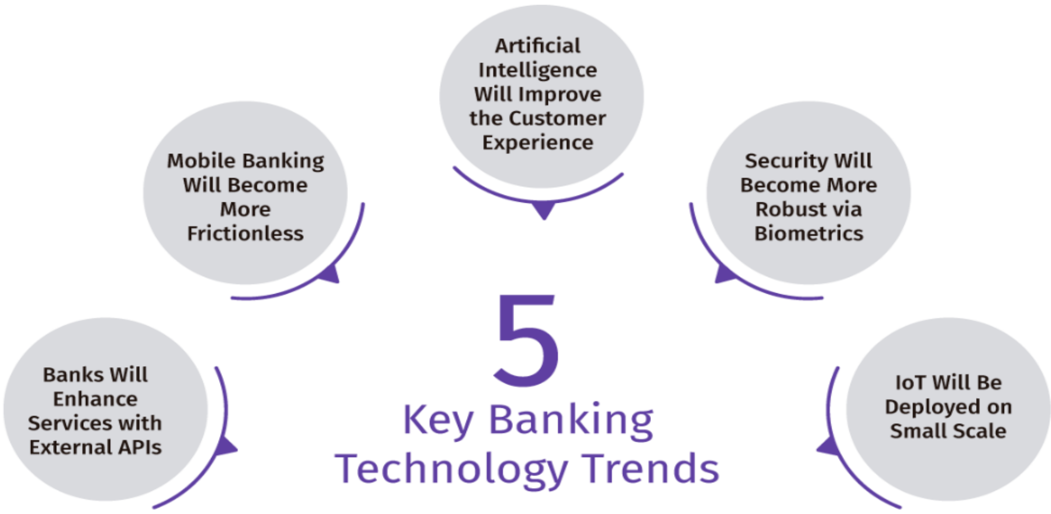
Digitization has garnered significant attention in the media, has been extensively researched in academic circles, and remains a contentious topic in the business world.

Digitalization refers to converting information into a digital format organized into discrete data units known as bits. Digitization is converting analogue source material into a digital format, which involves representing the information numerically using a decimal or another number system. According to Harchekar (2018), digitization is crucial in facilitating data processing, storage, and transmission. This is because it enables various forms of information to be conveyed equally efficiently and integrated.

The digitalization of developing nations such as Pakistan banks has resulted in new business models, including new ideas for development and improvement in various fields, ranging from social media mobile banking to financial transactions and online banking. In order to solve the growing complex requirements and issues of globalisation, this has continued to develop and displace traditional banking services to customers via the use of new technology. The Pakistan banking and financial industry has witnessed major changes and progress in recent years and is constantly developing.

During the Covid-19 epidemic, the financial digital transition process has been expedited. Customers have been obliged to do cashless transactions and avoid physical touch with others due to covid-19 circumstances. Federal and local governments always encourage people to follow health protocols in all places and activities. Both the banking and financial industries have recognized that technological advancements should be used to improve industry performance and deliver better services to present clients (Khairina, 2022). Technology disruption in the financial and banking industries has shifted company attitudes toward more customer-centered offerings. Banks and other financial organizations are racing to create digital platforms to deliver better customer services. The progress of digitization has prompted the banking and financial industry to accelerate their business strategy by employing technology to produce innovation in the delivery of their products and services. This strategy provides users with additional options and enables more tailored financial transactions.

Figure 1



1.1. Social Media

Recently, there has been a significant focus on social media, which is underpinned and enabled by Internet technology. The impact of social media's exponential expansion has brought about changes in how individuals interact on diverse social media platforms, as evidenced by studies conducted by Hanna, Rohm, and Crittenden (2011) and (Ngai, Tao, & Moon, 2015). Researchers see social media as a unified portion of digital media that allows for functionality. In the current literature, various definitions are used, with the majority of them including features of shared content built decentral and exchanged between users and between customers and organizations. Social media is a term that refers to a group of online applications that are built on the principles and technology of Web 2.0. These applications facilitate the creation and exchange of content that users generate. Several social media platforms can be categorized according to their degree of interaction. For instance, media-sharing platforms like Instagram and YouTube exhibit moderate collaboration, while sharing sites like Twitter and content communities like Tumblr are classified as weblog platforms. Digital social networks already have a respectable level of participation, which is heightened on social networking sites such as Facebook. Virtual worlds, where people settle in virtual online environments, are the only type of social media with a higher level of participation (H. Du & W. J. J. o. I. S. Jiang, 2015; Xiang & Fesenmaier, 2017). Academic research on social media is still lacking in examining the varied goals of social media usage and its effects on organizations. As a result, to fully grasp social media's potential, it is necessary to analyze the many goals of social media usage and its influence on organizational performance (Kwahk & Park, 2016). Social media, as a social exchange medium, may assist banks in spreading "word of mouth" and building social interactions with consumers and other businesses. As consumers use social media more often, banks that can successfully harness social media to acquire finance are more likely to prosper in today's competitive business climate.

Figure 2: Local States

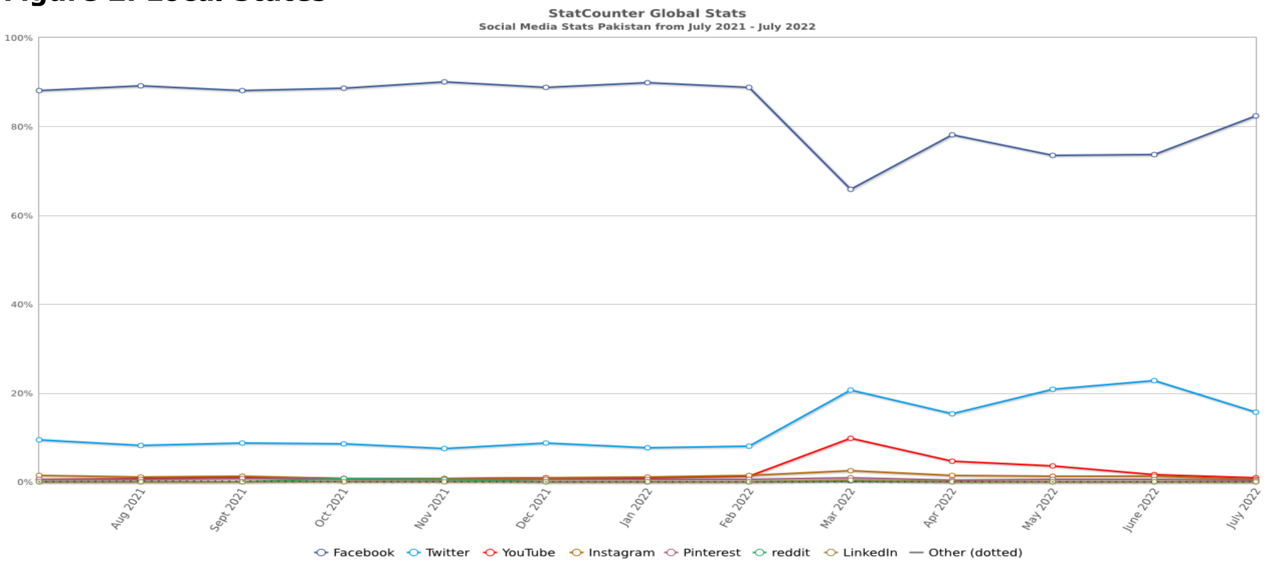
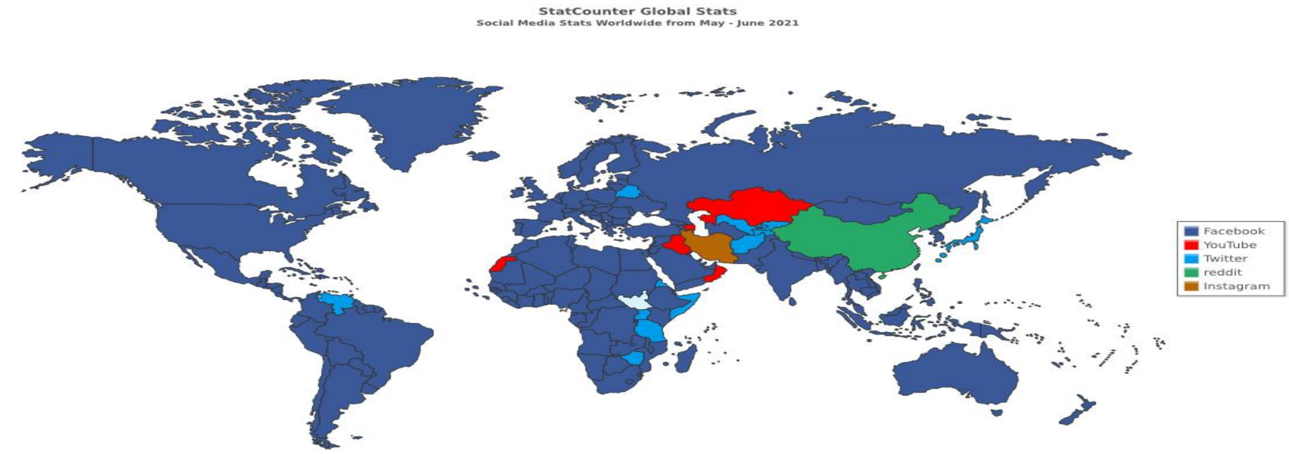


Figure 3: Global Stats



1.2. Advantages of Digitization in Banking

According to Harchekar (2018), the following are the major merits of digitization:

- Reduce expenses for banks and clients through cashless transactions, ATMs, etc.
- With more digital data available to banks, they can use digital analytics to make data-driven, dynamic choices. Customers and banks both gain from this.
- The improved convenience of banking will increase the number of consumers for banks.
- Human mistake will reduce through digitization.
- The need to handle big cash amounts will be decreased.
- The rural-urban divide will be bridged.
- With more cashless transactions, the threat of counterfeit currency will be decreased.

1.3. Problem Statement

The current study is based on two widely utilized hypothetical fundamentals: the resource-based viewpoint and the dynamic abilities approach. This study assumes that banks must create dynamic capabilities expressly for digital transformation. Emphasis on the actions done by banks to adjust their resources to remain competitive in a changing environment (Teece, Pisano, & Shuen, 1997; Warner & Wäger, 2019). Although banks invest large sums of money, some authors claim it does not give a long-term advantage over competitors. This is referred to as the profitability paradox. Because digitization profoundly alters how businesses work, it is important to consider if and under what conditions digitalization may improve bank performance.

The banking industry's operating efficiency has greatly increased due to digitalization. Pakistan has implemented a variety of solutions to facilitate financial transfers. Electronic instructions can be sent to banks to move funds to another bank account Directly. The Pakistani banking industry will continue to expand, as will digitalization. A developing economy needs strong financial services, inevitably contributing to the banking industry's favorable future.

The main issue is determining how the rate of digitization is related to greater bank performance in emerging nations such as Pakistan. Based on prior research, there is also a how digitization is positively connected with greater bank profitability in developing nations such as Pakistan. The current study also seeks to determine if the measure of accomplishment of a digital strategy is connected with greater bank performance in emerging nations that are suffering, as well as whether the impact of digitalization varies dramatically among developed and less developed areas.

1.4. Research Questions

To address the abovementioned problem, the study aims to find answers to the following research questions.

- Is the speed of digitization adoption affect bank performance?
- Does the scope of digitization influence bank efficiency?
- Is it true that banks with a stronger digital orientation outperform others?

1.5. Research Aim and Objectives

The study examines the link between digitalization and bank performance in Pakistan. This research will also decide that every financial institution should be mindful of how a digital presence might boost its effectiveness and the impact of different digitization sources on financial results on a wider level.

- This study looks into the effects of digitalization in Pakistan's banking sector.
- This research takes a comprehensive approach to digitalization, encompassing company digital inclination in general as social media initiatives as an important aspect of the entire procedure.

1.6. Significance of study

This research highlights the necessity of using social media in many business sectors and improves comprehension of social media application architecture. The research also offers suggestions for boosting the effectiveness of application solutions. Based on the suggested conceptual framework, organizations are urged to incorporate social media into their operations. E-banking, often known as social media digital banking, is the future of banking technology. Furthermore, the significance of staff and their optimal utilization cannot be overstated in attaining operational profitability, operational efficiency, satisfying client expectations, and other dimensions of bank performance.

Because there have been few studies on this issue, the effects of digitalization on a business organization are obvious in different ways. However, due to its unique context, this study is critical. Studies of the effects of digitization on the banking industry in a developing country like Pakistan will not only help to reevaluate how digital innovation can transform the perspectives of value offered by a business change for a consumer. However, they will also help to understand how a specific sector in a less developed economy copes with the challenges of digitization. This study examines the effects of digitalization from a unique perspective, relating these effects to relevant theories to comprehend the patterns discovered in a real-life market environment. As a result, this study has the potential to make substantial additions to the literature on the digitization of the banking industry. Furthermore, the research may be provided as essential proof for experts working in Pakistan's banking industry and other developing nations' banking sectors.

2. Literature Review

The literature may be divided into several categories, including digital and social media study, social media in a publicizing environment, adoption, and relation to bank financial performance. To build a successful digital presence, it must be integrated into the company's business plan (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013).

Kindermann et al. (2021a) have reported a positive correlation between the adoption of social media and financial performance, as evidenced by multiple research studies. Paulet and Mavoori (2019) and Schniederjans, Cao, and Schniederjans (2013) have restricted their research to Facebook, Twitter, or both while disregarding alternative social media platforms such as YouTube, Instagram, or Pinterest. H. Du and W. Jiang (2015) refer to the significance of movement within a singular channel. Merely increasing the scope and magnitude of financial resources contributes to improving financial well-being, whereas solely augmenting the range is insufficient. Consequently, the foundational research initially examines the importance of the pace of digitization, leveraging the primary advantage of digitally targeting novel customer segments. The present study examines the degree of digitalization manifested in a financial institution's social media communication efforts. It is imperative to analyze not only the quantity of social media platforms utilised by a corporation but also the efficacy of their implementation, as stated by (Malmström & Wincent, 2018).

The efficacy of the digital strategy employed is a crucial requirement for leveraging the potential benefits of a digital footprint. In order to maintain customer satisfaction and retention, it is crucial to monitor customer feedback across various channels and leverage this information to tailor the approach to their requirements promptly. Consequently, enhanced efficacy of the digital strategy is expected to yield augmented customer engagement and allegiance. Consequently, there is a prevailing belief that the degree of triumph in a firm's digital approach favours its monetary outcomes. This pertains to the degree to which an organisation has implemented a digital strategy that outlines future objectives and targets and the presence of personnel responsible for digital transformation within the company. Furthermore, as posited by Bharadwaj et al. (2013), an organisation that has embraced digitalisation possesses streamlined digital workflows, efficient synchronisation of supply chain processes, the potential to enhance productivity through network externalities, and increased access to information facilitated by digital pathways.

2.1. Relationship between Digitization and Financial Performance

Several prior research endeavors investigating the impact of social media on financial gain have yielded incongruous results. Several research studies have indicated a positive correlation between financial outcomes and involvement in social media (H. Du & W. Jiang, 2015; Ho, Lwin, & Lee, 2017). Most studies, however, focused on Facebook, Twitter, or sometimes both, neglecting other modes of media like YouTube, Messenger, Linkedin, or other platforms. Overall, the digitalisation and social media study is still in its early stages, with many more areas to be researched and confirmed. The relationship to financial success has received little attention, necessitating multi-industry, multi-country, and cross-longwise studies.

On the other hand, when habits and work procedures are altered to accommodate potential efficiency increases, digitalisation is thought to deliver considerable efficiency. Therefore, digitisation initiatives will undoubtedly affect bank performance. Implementing novel procedures necessitates bankers to acclimate to technological advancements, which could potentially yield diverse implications on financial ratios. While some may perceive these effects as advantageous, others may encounter difficulties adapting to this technology and may require a period to comprehend and manage these alterations. Adopting digitalisation has the potential to produce indirect cost difficulties that the bank must pay, as well as internal opposition, which will also raise worries that lead to negative consequences (Saputra, Wicaksono, & Azhar, 2019).

H_1: The speed of digitisation is positively associated with Bank financial performance.

2.2. Speed of Digitization and Financial Performance

The fundamental research first explores the significance of digitisation speed, utilising a premium benefit in digitally directing new target customers. Social media, phone apps, and communication technologies have given banking a new dimension. Theories on the increasing relevance of digitisation's speed have mainly developed from the Schumpeterian argument, which maintains that new services and processes introduced by a bank are protected from copying for a set period. The attainment of a successful step leads to creating a temporary private market advantage, thereby conferring a competitive edge and enhancing the performance of the innovative firm. Automated teller machines (ATMs), social networking sites, internet banking, and electronic money are among the significant banking advancements that have revolutionised the banking industry and the modes through which financial services are delivered.

This study incorporates two variables, namely the speed of decision-making and the development and adaptation of networks, into the process of digitisation speed in an indirect manner. Additionally, following Järvinen, Tollinen, Karjaluoto, and Jayawardhena (2012) study, social media constitutes a vital aspect of digital media that facilitates social engagement and is an essential constituent of a corporation's digital presence. The present research investigates the rate of digital transformation, which is marked by the swift integration of diverse social media channels by companies, the creation of novel networks, and the accommodation of customers' digital expectations. Frequently, such behaviours are driven by the aspiration to conform to the dominant pattern of social media utilisation. According to the resource-based view and dynamic capabilities perspective of achieving a competitive edge, there is a proposed positive correlation between the speed of digitisation and firm performance.

H_2: The scope of digitisation positively correlates with Bank financial performance.

2.3. Scope of Digitization and Financial Performance

When analysing a company's digital presence, the breadth and depth of its utilisation must be considered in addition to the speed of digitalisation. According to Bharadwaj et al. (2013), "scope" refers to the range of products, services, and operations under a company's direct control and ownership.

The scope of digitalisation ushers in revolutionary changes in the Pakistani financial system. The banking sector's implementation has altered dramatically and is undergoing technical advancement. Customers of Pakistani banks can have access to financial services via technology. It tries to alleviate the burden of personally visiting a bank. The Pakistani banking industry elevates the banking system from its conventional state; hence, new ways are adopted. Trending methodologies are deliberately updated to provide an effective banking system that meets clients' needs (Jamil, 2021).

Banks offer a smaller number of Internet banking options. Pakistan's government is attempting to alleviate banking concerns by authorising current plans to provide the people with the greatest banking experience possible. However, just a few banks support social networking platforms. Inline, Ahmad and Hadi (2020) demonstrate that the progress of information technology reveals that implementing e-banking inside modern institutions might promote financial and economic improvements. However, compared to wealthy countries, Pakistan lags in achieving the finest banking technique. According to the global banking situation, e-banking is the most useable banking system, with over 78% of banking consumers globally using e-banking. In order to compete in the market, Pakistan has established legislation governing electronic banking.

As per the resource-based perspective, enterprises inherently strive to expand their opportunities for diversifying their product and market portfolio. This study examines the extent of digitisation by analysing a company's social media presence. It is crucial to assess the scope of social networks by scrutinising the quantity and effectiveness of the diverse platforms utilised by a company. The augmentation of both the scope and intensity of engagement in social media platforms positively impact performance, whereas solely broadening the scope of participation does not yield the same effect. Thus, the present investigation delineates the extent of a corporation's social media presence as a combination of the range of platforms utilised and the level of engagement exhibited on each respective site. H. Du and W. Jiang (2015) study posits that the extent of digitalisation positively affects profitability.

Adopting digitalisation has the potential to produce indirect cost difficulties that the bank must pay, as well as internal opposition, which will also raise worries that lead to negative consequences. Then, bank managers and staff may be sceptical about implementing digitisation, which is seen as a disruption, such as being time-consuming and having a detrimental influence on their financial output. Positive attitudes about the scope of digitalisation. By examining this issue, this research will investigate the employee acceptability of digitalisation (Pipitwanichakarn & Wongtada, 2019).

H_3: A company's digital orientation favourably relates to its financial performance.

2.4. Digital Orientation and Financial Performance

Ultimately, a comprehensive evaluation of the company's digital strategy is imperative. This encompasses an assessment of the presence of a digital strategy within the organisation, along with clearly defined objectives and goals for the future. Additionally, an evaluation is made regarding appointing a digital transformation specialist within the firm. An organisation oriented towards digital technology has transformed its operations into a digital format, enabling swift collaboration within the production chain, the potential to derive value through network effects, and enhanced accessibility through digital channels. In order to possess a digital orientation, a company need not excel in all domains, but it is imperative that it comprehends the benefits of establishing an online presence and is in the process of transitioning if certain practices have yet to be adopted. According to the technology adoption paradigm, the perceived usefulness and ease of use of technology impact individuals' mentality and awareness of its use, ultimately leading to its acceptance (Davis, 1989). Digital orientation is approached by considering various aspects of established practices and processes in transformation and company consideration. The present research postulates a positive correlation between a company's digital inclination and financial outcomes, aligning with numerous prior investigations' conclusions.

Digital orientation is critical for a country's economic advancement and banks' strategic competitive advantages. According to The Economist, digital orientation accounts for 85% of a country's economic success. The globe has experienced tremendous growth and trend in digital orientation, influencing the performance of banking sectors globally. Digital technology has a fundamentally different nature than non-digital technology. A digitally oriented-business focuses more on digital technology (Kindermann et al., 2021b; Matt, Modrák, & Zsifkovits, 2020).

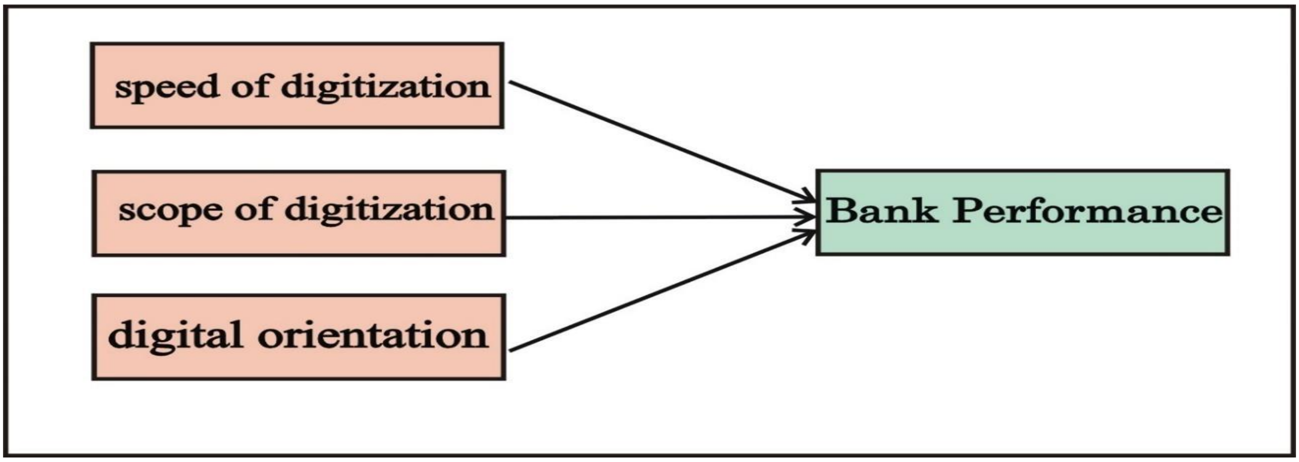
According to scholarly results, digital bank orientation predicts stronger bank performance since it impacts how banks alter their operations and resources (Kindermann et al., 2021b; Newbert, 2007). According to resource-based theory, digitally oriented organisations in digitalisation achieve greater financial objectives owing to their larger vision and dedication to developing financial plans utilising a new technology. With the logic above and literary support in mind, our present study contends that banks with a digital orientation outperform others regarding financial success.

According to Sadr (2013) argument, the negative impact of ATM and Internet banking on the operational efficiency of banks in several emerging economies can be ascribed to the high expenses associated with the infrastructure needed for these services, along with a restricted clientele. Based on the study's findings, despite extensive endeavours to encourage the adoption of online banking, the detrimental effect of Internet banking on the operational efficiency of financial institutions in numerous emerging economies persists without any reduction. The absence of a discernible positive effect of digital technology on banks' profitability in developing nations can be attributed exclusively to the inadequacy of e-banking services in contributing to cost reductions. The utilisation of automated teller machines (ATMs) and diverse types of bank cards, including credit and debit cards, is purported to augment bank profitability. In contrast, extant literature has shown that the employment of online banking services and payment terminals may adversely affect the financial gain of banking institutions. According to Akhisar, Tunay, and Tunay (2015), ATMs have been identified as having the most substantial influence on bank profitability among the electronic banking platforms analysed.

Digitization and social media have become increasingly important to researchers. Table 1 summarizes relevant literature, highlighting major discoveries, investigated approaches, and limitations. The literature may be separated into two categories: Acceptance and financial performance of digital and social media research, particularly social media in a marketing environment.

3. Research Model

Figure 4: Framework



4. Methodology

The research framework is comprised of 3 variables and 1 outcome. The variables are the speed of digitalization, the scope of digitization, and digital orientation, and the outcome is bank financial performance. The study's sample comprises 36 banks. Banks with missing data are removed from the sample. The study used census sampling, which is more adaptable and indicative of the entire population. Secondary data is derived from annual financial reports covering 2012-2021 (both inclusive). This study's target sector is Pakistan's financial sector and is Cross-sectional Data.

Table 1

Category	Code	Criteria	Example
Traditional	1	The responsibility for digitisation has not been attributed to any specific individual or entity. The level of awareness regarding digital trends and challenges is either insufficient or minimal. The organisation lacks a definitive strategy to tackle digital obstacles and has not established specific objectives for the future in this domain. The organisation exhibits a low level of digitalisation, with minimal or no investment in digital innovation.	The annual report of Deutsche Wohnen AG does not reference digitalisation, nor does it identify any individual responsible for overseeing this aspect of the company's operations. Furthermore, there is no mention of digital trends, targets, or investments on the company's website or annual report.
Slowly adapting to digital trends	2	The organisation demonstrates cognisance of contemporary digital trends and may even possess a department or personnel accountable for digitisation. Gradually, strategies are being developed to address obstacles. However, no tangible progress has been achieved thus far. The absence of well-defined objectives and benchmarks for digitisation is evident, and the level of digital adoption within the organisation is notably limited.	The report covers a limited number of processes. The subject of discussion pertains to TAG Immobilien AG. The organisation does not bear responsibility for the process of digitisation. However, it is currently endeavouring to tackle digital challenges and trends through its annual initiatives. While a significant portion of its operations has been digitised, the organisation is still in the nascent stages of preserving digital data about its customers, with a considerable amount of data yet to be

			converted. The organisation lacks a well-defined strategy and objectives concerning the matter of digitisation.
Average	3	The organisation demonstrates cognisance of contemporary digital patterns and conceivably possesses a department or personnel accountable for digitisation. The organisation has established plans and objectives to tackle digital challenges and exhibits moderate digitisation within its respective industry.	Hochtief AG has no designated individual or department responsible for overseeing digitisation efforts. However, the company acknowledges the importance of digital trends and endeavours to address them in its annual report. The organisation has proposed strategies for addressing digital obstacles and has implemented certain digital services, including digital construction and a digital project management tool. However, the annual report lacks a definitive digital strategy and established objectives.
Fastly adapting to digital trend	4	The organisation has a Chief Digital Officer or an individual holding a comparable position who is solely accountable for digital transformation. Numerous procedures are undergoing digitisation, and the enterprise is proactively utilising digital media to enhance its profitability. The organisation has established distinct objectives and aims to address digital trends while allocating resources toward select digital innovations. The entity in question exhibits a higher degree of adaptability than the mean of its respective industry, resulting in a relatively faster rate of adaptation.	The organisational structure of Ströer Media SE includes a Chief Digital Officer (CDO). The annual report extensively deliberates on the trends and challenges of digitisation, with Stroer being at the forefront of digital advertising. The organisation has a well-defined digital strategy and digitised several processes. However, the annual report is deficient in outlining Stroer's digital targets and objectives.
Highly digitised company	5	The organisation has undergone a complete digital transformation. The digital domain serves as the primary operational sphere, propelling most sales. The company has a well-defined digital strategy that includes specific targets and goals. Additionally, the company allocates resources toward digital innovation.	The Chief Digital Officer of Zalando SE delivers a presentation on the digital trends and challenges that are being tackled and coordinated in alignment with the company's mission and strategy. A clearly defined digital strategy with specific objectives. Establishing a digital centre entails digitising nearly all processes, with most revenue generated digitally.

Note: The table above categorizes businesses according to their level of digital orientation. The document delineates the distinct tiers of digital orientation and incorporates instances of enterprises within each classification. The rating system was specifically tailored for this investigation.

Table 2: Operationalization/ Measurement of Variables

Independent Variables	Definition	Proxy	Citation
Speed of digitalisation	The acceleration of digitisation is tackled by prompt decision-making of enterprises to embrace the social media phenomenon. This involves the utilisation of diverse social media platforms to establish novel networks and conform to customers' digital requirements.	A sum of all speed ratios of the bank divided by the number of the platform a Bank use	(Järvinen et al., 2012)
Scope of digitalisation	"business portfolio" refers to the collection of products, services, and operations under a company's direct control and ownership.	Number of platforms used Number of Facebook posts Number of tweets Number of YouTube videos	(Bharadwaj et al., 2013) (Bunte, 2018)

Digital orientation	The digital orientation of the organisation warrants due consideration. The assessment entails a comprehensive analysis of a digital approach that outlines clear-cut aims and objectives for the forthcoming period, alongside designating a competent staff member to oversee the digital conversion process within the organisation.	digital orientation rating (5 item scale)	(Bunte, 2018)
Dependent Variable	Definition	Proxy	Citation
Bank performance	The concept of financial performance pertains to the extent to which financial goals have been achieved or are being achieved.	ROA & ROE	(Bunte, 2018; Ho et al., 2017)

5. Results and Discussion

5.1. Descriptive Statistics

Descriptive statistics is the control of quantitatively describing the most alternatives of data gathering. Unmistakable insights territory unit perceived from inferential estimations (or inductive measurements), in that engaging insights intend to outline an example rather than utilise the data to discover concerning the populace that the example of data is accepted to speak to. This commonly implies engaging, dislikes inferential insights, and does not appear to be created based on the likelihood hypothesis. The study used bank financial performance as a dependent variable. The following table shows the sample characteristics of all the variables, including (Depended, In-depended, and control variables).

A descriptive result shows that the mean value of ROA is 1.94 with a maximum of 8.007 and a minimum of .012 combined with an SD of 2.019. The mean value of ROE is 5.557, with a maximum of 160.739 and a minimum of .024 combined with an SD of 22.077, respectively. On the other hand, for the independent variables, the mean value of speed is .38 with a maximum of 1.372 and a minimum of .067 combined with an SD of .247. The mean scope value is 1.525 with a maximum of 212.69 and a minimum of 0 combined with an SD of 2.616. Meanwhile, the mean value of Digital orientation is 3.155, with a maximum of 5 and a minimum of 0 combined with an SD of 1.274. The mean value of Firm size is 12.84 with a maximum of 15.789 and a minimum of 11.58 combined with an SD of .771. The mean value of growth is .053, with a maximum of 2.922 and a minimum of -.861 combined with an SD of .394. The last mean value of an investment is 1.624, with a maximum of 6.481 and a minimum of .001 combined with an SD of 1.626. The summary of the descriptive analysis is provided in following table 3.

Table 3: Summary Statistics

	N	Mean	Median	Median	Std. Dev.	min	Max
ROA	264	1.94	1.215	1.215	2.019	.012	8.007
ROE	264	5.557	1.307	1.307	22.077	.024	160.739
Speed	264	.38	0.333	.333	.247	.067	1.372
Scope	264	1.525	0.000	0	2.616	0	12.69
Digital orientation	264	3.155	3.000	3	1.274	0	5
Firm size	264	12.84	12.812	12.812	.771	11.58	15.789
Growth	258	0.53	0.027	.027	.394	-.861	2.922
investment	264	1.624	0.994	.994	1.626	.001	6.481

5.2. Correlation

Correlation is a statistical tool to identify the factors that had a meaningful link with the dependent variable, financial success (ROA, ROE). This phenomenon could be attributed to multiple variables' influence on the abovementioned variable. It is worth noting that certain indicators, which were not explored in the present study, such as a company's reputation and projections, may also play a role in this outcome. This emphasizes the reality that various channels may have fundamentally different aims and productivity, and as a result, the core model must be carefully addressed, although many pathways may have different evaluations on the formative metrics employed. One plausible explanation for these dissimilarities could be the relatively lower adoption rate of Facebook and Instagram among companies, leading to a reduced sample size in the respective investigations. This may have resulted in inadequate statistical power to detect significant outcomes at the 90% confidence level. Table 4 shows the correlation among all the variables, including Independent, Dependent, and control. Firstly, ROE has a negative correlation with ROA. The next variable of the model is the speed of digitisation which has a positively significant correlation with ROA but is negatively correlated with ROE. Secondly, the scope of digitisation has positively correlated with ROA and speed of digitisation but has a negative correlation with ROE.

Similarly, digital orientation has a positive correlation with ROA and a significantly positive relationship with the scope of digitisation. It has a negative correlation with ROE and speed of digitisation. Control variables illustrate that firm size negatively affects ROA and digital orientation. It is negatively correlated with the scope of digitisation and positively significant with ROE. Growth negatively correlates with ROA, ROE and firm size when positively related to the speed of digitisation, scope of digitisation, and digital orientation. At last, investment is negatively significant with ROE and firm size when positively significant with ROA. Investment positively correlates with the speed of digitisation, scope, digital orientation, and growth. This study is also consistent with the study (Bunte, 2018).

Table 4: Pairwise Correlations

Variables		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	ROA	1.00							
(2)	ROE	-0.09	1.00						
(3)	Speed	0.13*	-0.06	1.00					
(4)	Scope	0.07	-0.05	0.03	1.00				
(5)	Digital orientation	0.11	-0.10	-0.04	0.23*	1.00			
(6)	Firm size	-0.62*	0.54*	-0.11	-0.05	-0.19*	1.00		
(7)	Growth	-0.01	-0.01	0.04	0.05	0.00	-0.07	1.00	
(8)	investment	0.45*	-0.14*	0.07	0.02	0.05	-0.67*	0.11	1.00

***p<0.01, **p<0.05, *p<0.1

5.3. Impact of Digital Orientation on Performance Using Return on Assets

Table 5 displays the regression among Independent, Dependent and control variables. Digital orientation is an insignificantly negative regress relation with ROA. Firm size has a highly significant negative regress relation with ROA. AS well as regress, the relation of growth with ROA is positive. Investment has negative regress relation with ROA.

Table 5: Impact of Digital Orientation on performance using Return on Assets

Variables	(1) ROA	(2) ROE
Digital Orientation	-0.039	-0.80
	(-0.611)	(-1.115)
Firm Size	-1.395**	-1.420***
	(-6.664)	(-6.468)
Growth of Advances	0.044	0.055
	(0.664)	(0.843)
Investment	-0.005	-0.013
	(-0.051)	(-0.124)
Year Fixed Effects	No	Yes
Constant	19.807***	20.156***
	(6.707)	(6.751)
Observations	323	323
R-squared	0.301	0.309

Robust t-statistics in parameters
***p<0.01, **p<0.05, *p<0.1

5.4. Impact of Digital Orientation on Performance Using Return on Equity

Table 6 displays the regression among Independent, Dependent and control variables. Digital orientation is an insignificantly positive regress relation with ROE. Firm size has a highly significant positive regress relation with ROE. AS well as regress, the relation of growth with ROE is negative. Investment has a positively significant regress relation with ROE. There are no Year fixed Effects, and ROE is highly insignificantly constant. Speed of digitisation has negative regression with ROE.

Table 6: Impact of Digital Orientation on performance using Return on Equity

Variables	(1) ROA	(2) ROE
Digital Orientation		0.106
		0.106
Firm Size	23.635***	20.685***
	(4.030)	(3.733)
Growth of Advances	-0.789	-0.804
	(-1.106)	(-1.373)
Investment	5.499***	-4.636***
	(3.928)	(3.607)
Year Fixed Effects	No	Yes
Constant	-0.062	
	(-0.018)	
Observations	258	323
R-squared	0.396	0.356

Robust t-statistics in parameters, ***p<0.01, **p<0.05, *p<0.1

5.5. Impact of Scope of Digitization on Performance Using Return on Assets

Table 7 displays the regression among Independent, Dependent and control variables. The scope of digitisation is insignificantly positive regress relation to ROA. Firm size has a highly significant negative regress relation with ROA. AS well as regress, the relation of growth with ROA is positive. Investment has a positive regress relation with ROA.

Table 7: Impact of Scope of Digitisation on performance using Return on Assets

Variables	(1) ROA	(2) ROE
Scope of digitalisation	0.032	0.121
	(0.787)	(1.232)
Firm Size	-1.456***	-1.439***
	(-6.020)	(-5.831)
Growth of Advances	0.027	0.040
	(0.358)	(0.519)
Investment	0.092	0.090
	(0.758)	(0.744)
Constant	20.430***	20.144***
	(6.296)	(6.115)
Observations	258	258
R-squared	0.358	0.393

Robust t-statistics in parameters, ***p<0.01, **p<0.05, *p<0.1

5.6. Impact of Scope of Digitization on Performance Using Return on Equity

Table 8 displays the regression among Independent, Dependent and control variables. The scope of digitisation is an insignificantly negative regress relation with ROE. Firm size has a highly significant positive regress relation with ROE. AS well as regress, the relation of growth with ROE is negative. Investment has a large, significantly regressive relationship with ROE.

Table 8: **Impact of Scope of Digitisation on performance using Return on Equity**

Variables	(1) ROA	(2) ROE
Scope of digitalisation	-0.158	0.146
	(-0.435)	(0.210)
Firm Size	23.604***	23.827***
	(4.045)	(4.062)
Growth of Advances	-0.808	-0.643
	(-1.134)	(0.883)
Investment	5.493***	5.447***
	(3.937)	(3.968)
Year Fixed effects	No	Yes
Constant	-305.949***	-311.440***
	(-4.016)	***(-4.028)
Observations	258	258
R-squared	0.396	0.405

Robust t-statistics in parameters, ***p<0.01, **p<0.05, *p<0.1

5.7. Impact of Speed of Digitisation on Performance Using Return on Assets

Table 9 shows the regression between independent, dependent, and control variables. The rate of digitalisation has a somewhat positive regress relationship with ROA. Firm size has an extremely substantial inverse relationship with ROA. Furthermore, the regress relationship of growth with ROA is positive. Investment has a regressive relationship with ROA.

Table 9: Impact of Speed of Digitization on Performance using Return on Assets

Variables	(1) ROA	(2) ROA
Speed of digitisation	0.507	0.570
	(1.071)	(1.137)
Firm size	-1.444***	-1.444***
	(-5.958)	(-5.888)
Growth of Advance	0.021	0.029
	(0.267)	(0.383)
Investment	0.092	0.086
	(0.752)	(0.700)
Year Fixed Effects	NO	YES
Constant	20.137***	19.989***
	(6.185)	(6.084)
Observations	258	258
R-squared	0.387	0.392

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

5.8. Impact of Speed of Digitisation on Performance Using Return on Equity

Table 10 displays the regression among Independent, Dependent and control variables. Speed of digitisation is an insignificantly negative regress relation with ROE. Firm size has a highly significant positive regress relation with ROE. AS well as regress, the relation of growth with ROE is negative. Investment has a large regressive relationship with ROE (Ho et al., 2017).

Table 10: Impact of Speed of Digitisation on performance using Return on Equity

Variables	(1) ROE	(2) ROE
Speed of digitisation	-0.150	1.685
	(-0.044)	(0.417)
Firm size	23.632***	23.856***
	(4.029)	(4.046)
Growth of Advance	-0.789	-0.661
	(-1.106)	(-0.905)
Investment	5.499***	5.440***
	(3.927)	(3.969)
Year Fixed Effects	NO	YES
Constant	-306.498***	-312.635***
	(-3.990)	(-3.997)
Observations	258	258
R-squared	0.396	0.405

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

6. Conclusion and Discussion

Digitalisation has risen in relevance and attention over the previous few decades. This study showed no indication of a meaningful connection between digitalisation factors and financial success, leaving the research issues unanswered. It can be deduced that all enterprises must be cognizant of this phenomenon and meticulously deliberate upon the potential benefits of establishing a digital presence to augment their triumph. It has been established that divergent trajectories can yield contrasting outcomes, conferring advantages upon select enterprises while disadvantaging others. Further investigation is required to ascertain the impact of digitalisation's published sources on financial performance at a larger scale.

This research aimed to determine the relationship between digitalisation elements and financial success. Two unexpected patterns were observed, although the data were not statistically significant at 90%. To begin with, it appears that a more technologically focused firm is financially inferior in Pakistan. Second, a firm with a good digital strategy and many social media followers appears to be doing poorly financially. This implies that the inclination toward utilising social media to enhance performance may be overstated. Conversely, the present study validated two prevalent suppositions: augmenting the scope and intensity of social media can potentially improve economic outcomes, and acknowledging the significance of rapidity is also crucial.

Conversely, multiple channels had various outcomes, indicating that a blanket observation about the impact of social media on performance might not be applicable and that it must be thoroughly dissociated per channel, even if more channels result in higher financial performance. The results are then placed in the framework of current literature, resulting in novel theoretical implications. Following that, the implications for practitioners are reviewed, followed by a discussion of the study's shortcomings, which leads to endorsements for further research.

6.1. Theoretical implications of the study

The current study adds to the existing body of information by investigating the relationship between digitisation and financial success across many channels and sectors. The study provides comparability and improves our understanding of the influence of digitalisation on financial outcomes by evaluating companies of diverse ages, sizes, and industries inside a single stock index.

The study defines a company's digital orientation as quantitative and investigates its relationship with financial performance. This adds to the theoretical framework by elucidating the significance of digital methods in generating favourable financial results. The study sheds light on the enormous investments in human and financial resources required to build comparable digital channels by showing the predominance of multi-channel approaches to digitisation among modern enterprises. This insight contributes to the theoretical understanding of the difficulties and opportunities involved with organisational digital transformation.

6.2. Practical Implications of the Study

According to the conclusions of this study, firms that already use a multi-channel strategy gain from financial performance advantages. This implies that businesses not using internet platforms may miss out on possible benefits. As a result, practical consequences include the significance of embracing and exploiting digital platforms to improve financial outcomes.

The study emphasises the need for organisations to research the potential benefits of digital platforms. While quick assumptions may not always result in enhanced financial performance, organisations must participate in systematic investigation and evaluation of the impact of digitalisation on their specific settings. This emphasises the practical relevance of undertaking comprehensive assessments before implementing digital strategies.

The findings emphasise connecting digital initiatives with overall corporate objectives and ambitions. It proposes that organisations carefully assess their digital orientation and customise ways to maximise financial performance. This implies that organisations must grasp how to incorporate digitalisation into their operations and value-generating processes.

6.3. Limitations and Further Research Recommendations

There are constraints in the specimen and data assemblage, and then there are limitations in the technique and outcomes, leading to further study recommendations. This study suggests additional research to compare acceptance from a cohort and positional standpoint to give a more comprehensive knowledge of technology adoption. Furthermore, it only contains enterprises from Pakistan, making worldwide generalisation hard. As a result, a larger sample size is required for a similar study that takes a cross-nation and cross-production approach. Furthermore, financial data was collected over ten years because this research had a restricted time range. Using publicly accessible bank data limits this analysis since it must assume the veracity of bank reports and trust other sources. An obstacle encountered in the process of gathering data from social media platforms pertains to the identification of appropriate pages to incorporate. This is because numerous banks possess multiple pages on a single platform, each catering to distinct functions such as recruitment or advertising and varying geographical locations. This could have resulted in data collection issues across multiple measurement indicators. Pakistani websites with the highest user engagement and following tended to be isolated from other available web pages. The global page with the most followers was selected without any regional categorisation.

Regarding hypothesis testing, it is important to acknowledge that neither the factor scores nor the loadings in the measurement models exhibited statistical significance. This suggests that the designated measures are not robust indicators for the formative constructs. In addition to social media, several other factors may influence digitisation's velocity, scope, and efficacy, warranting further scrutiny in subsequent investigations.

Furthermore, the described variation of financial performance by dependent variables is minimal in the inner model, signalling that many other determinants of financial performance, such as investment budget, innovativeness, or prestige, should be integrated into future studies. The connections between the selected independent variables are not studied here but should be included in further studies.

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