

The Impact of Digital Transformation on Promoting Banking Inclusion in Saudi Banks

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Abstract

The purpose of this research is to investigate how digital transformation has affected how financial institutions, specifically banks in Saudi Arabia, create their strategies. The authors of this study also provide practical recommendations to help these financial institutions (e.g. banks) improve how well their strategies produce results related to increasing access to financial resources (financial inclusion). While the Saudi Arabian banking industry has made great strides in technological advancements over the last several years through digital transformation, some banks are encountering difficulties implementing the necessary technologies for full utilization of digital technologies for various operational aspects; for example, there are poor levels of digital financial literacy, distrust of electronic transactions, and a disparity between geographical areas and their access to the internet and digital technology in the banking industry.

The researchers adopted a descriptive analytical approach in their research; that is, they surveyed a random sample of 84 employees at various financial institutions (banks) in Saudi Arabia using a questionnaire, and analysed this data using descriptive and analytical statistical procedures, including standard deviation, arithmetic mean, and simple regression analysis. The findings indicated a high level of dependence, at an average of 3.92, on digital technologies in Saudi banks, especially for customer service and information security systems. Results also indicated that there is a significant positive association between digital transformation and the strategies of financial companies (banks) in Saudi Arabia, with approximately 70% of the variance of financial company strategies being explained by digital transformation ($R^2 = 0.699$). The null hypothesis was rejected and the alternative hypothesis was accepted.

Overall, data derived from the above-noted study indicate that differing types of digital strategies exist in the two areas of performance improvement and risk management; also, there is an opportunity to develop new offerings by using advanced AI, blockchain technology and new funding/financing models through crowdfunding which creates a significant gap between basic technology (CRM and Security), and the use of advanced technology leading to transformation.

The research results highlighted statistically significant differences in job levels between senior managers and junior managers where senior managers see a greater degree of progress as compared to junior managers. The findings also highlight the valuable role that senior managers play in the successful digital transformation process, so it is recommended that financial services companies create a comprehensive long-term digital strategy, establish specialized units to promote innovation, develop an open banking model, advance the personalization of services digitally, build advanced AI-based technology security systems, and to assist with the re-training of human resources. The research also contains several recommendations for policymakers and regulators to create new regulations that correspond with this digital world, create digital infrastructure and national security, and create education/awareness programs that foster digital financial inclusion through easier access to finance. It also contains recommendations for researchers and academicians to conduct longitudinal studies and comparative studies of the impact of specific technologies on digital transformation and to create academic curricula that keeps pace with digital advancements.

In summary, the transition of Saudi Arabia from operational digitisation to strategic digital transformation represents a significant advancement within the Financial Services Sector through changes to its business model due to an increased emphasis and on-going large scale investment of resources allocated toward digitising their operations and using technology to improve competitiveness while also addressing issues of financial inclusion for those who are currently underserved within the financial system; thus, it will be necessary to improve and continue improving the use of technology within the Financial Services Industry due to current technology limitations and the high number of customers located in underserved areas.

Keywords

(Digital transformation - Financial inclusion / Banking inclusion - Digital banking services - Financial company strategies - Financial exclusion)

Introduction

As defined, Financial Inclusion, or equal and adequate access to the full range of financial and banking services to all segments of society, cannot be overemphasized as one of the main components of Sustainable Economic Development in our modern world. With rapid advances in Financial Technology taking place globally, Digital Transformation has become a large element of the evolution of banking and the "Expansion" of Benefits from Banking for all segments of society. The Digital Transformation is really a key part of the effort in Countries around the world to improve the operational efficiency of their Financial Systems and to create a more flexible, sustainable Economic Vision.

The Kingdom of Saudi Arabia has undertaken numerous initiatives to develop and enhance its digital infrastructure, thus enabling banks to offer enhanced services in terms of speed, security, and flexibility. Due to the initiatives by SAMA and the programs set up by the Kingdom under its Vision 2030, the banking sector in the Kingdom continues to modernize with various technologies such as online banking, e-wallets, digital payment mechanisms, and artificial intelligence systems. The continuing trend toward digital transformations will ultimately provide opportunities for increasing customer reach by tapping into less financially served portions of the population in remote areas that had hitherto been excluded from access to conventional banking services.

With a shift to a digital world, the Saudi Banking Sector has moved towards offering more comprehensive banking products and services, thereby increasing the access and inclusion of Individuals and Small Enterprises in Saudi Arabia into the formal financial system. Digital transformation has also been instrumental in reducing banking operating costs while enhancing service quality, which has resulted in improved rates of Banking Inclusion in Saudi Arabia. The impact of Digital Transformation is not only in expanding the number of services offered; Digital Transformation is having a positive effect on increasing engendering confidence in digital financial transactions and providing financial education.

This research, therefore, endeavours to establish the effects that Digital Transformation has in ensuring Banking Inclusion in Saudi Banks through an assessment of the latest state of digital developments within the banking industry, establishing the drivers that have resulted in improved access to Financial Products and Services, and establishing what barriers remain ahead in attaining full Banking Inclusion. In this regard, the research hopes to avail better understanding of the interdependencies between Financial Technology and Financial Inclusion in pursuit of the envisioned establishment of a digital economy in Saudi Arabia-a digital economy that is viable and sustainable (Al-Samri, 2024).

The problem of the study

As Saudi Arabia's Digital Economy continues to expand, so does the use of Digital Banking Services, which comprise a major portion of many banks' strategies for serving their customers (Muin & Khan, 2015). Nevertheless, there remains a significant gap between how much banks invest in digital infrastructure versus how well banks are currently using those investments. Many segments of the Saudi population are not yet receiving the same level of financial inclusion as others. Some segments of the society may not be able to access or use digital banking services due to a lack of knowledge regarding finances (correcting the through education), or due to very minimal digital literacy, or due to large geographic differences in access to technology between rural and urban areas; the other reasons why customers use simply traditional avenues are lack of confidence to use electronic transactions, or even the inability to use them (Radwan, 2023).

Assuming the existence of Digital Transformation Adoption in Saudi Banks and its impact on reducing the Banking Gap and increasing access to Formal Financing (Banking) for All Society Segments. There are some questions that need to be addressed; namely the preparedness of the Bank, the effectiveness of their Digital Services in addressing Financial Exclusion, and whether or not Regulatory Policies support the Digital Transformation Adoption. Therefore, In addressing this problem, the study aims to identify the real extent of Digital Transformation's impact in increasing Banking Inclusion for Individuals and Businesses via increased Ability to access Financial Services in a More Efficient Manner than before. (Abuhasan, 2021)

This Study will first discuss the relationship between Digital Transformation and Banking Inclusion, to assess the extent to which each contributes positively or adversely towards banking in Saudi Arabia, and to analyse the success of Digital Transformation to increase the number of Users of banking services and how effectively the services have been improved as a result of Digital Transformation.

Importance of the study

This study is significant because of its scientific contribution to the growth of knowledge in the area of financial services regarding how digital transformation is achieved within the industry. Additionally, it contributes to existing literature in this field by creating a comprehensive theoretical model that connects digital transformation with financial strategy, and it also fills a significant gap within the research landscape specific to Saudi Arabia, where the country is currently experiencing an unprecedented rise in its efforts to adopt digitalization through the State's Vision 2030 initiative. Furthermore, this study provides a detailed framework outlining how digital transformation is defined, what

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are its various dimensions, and how they relate to financial strategy today within an industry undergoing rapid change, and through a collection of best practices and lessons learned, offers an academic resource for researchers and practitioners engaged in fintech.

Providing useful information to Business/Financial Decision Makers is fundamentally the most practical aspect of this research, since it provides ideas for identifying correct strategic investment decisions in digital transformation efforts and developing financial strategies. In addition, this research gives a company a framework to evaluate where the company is on the digital maturity scale, and offers many options for improving corporate competitiveness through the use of the right digital tools/technology and efficiently using technological investments. Moreover, this study contributes to human resource development by identifying the skills required of employees in order to adapt to the current economy as a result of the advancement of technology. This information can assist in creating more effective employee training programs and assist employers in identifying the type of skills needed in employees in order for them to be competitive in the workplace.

This study is important from both an economic and social point of view, since it contributes to underpinning many of the national changes required to achieve the goals of Saudi Arabia Vision 2030 through the creation of a diversified and sustainable digital economy. It is no less important as a means of facilitating financial inclusion, as it demonstrates how digital technology can be utilized to offer financial products and services to more parts of the community while promoting increased levels of financial equity and the reduction in the wealth gap between different groups across Saudi Arabia. This study also serves as a means of fostering innovation since it motivates financial service providers to develop new business models, create additional job opportunities, and increases the level of financial stability by illustrating how digital technology has enhanced the management of financial risk and addressed many of the difficulties faced by traditional financial institutions. Overall, this study provides a combined value of science, practice, and society that will help to advance the digital transformation of all sectors of society. (Siddiqi, 2019)

Goal of this study:

The aim of the study is to identify how Digital Transformation affects the Financial Company Strategy in Saudi Arabia and provide practical recommendations for maximizing the effectiveness of the Financial Company Strategy in a Digital Environment.

Objectives of the study:

- i. To identify the extent to which Financial Companies in Saudi Arabia use Digital Technology in their Operational and Administrative Activities.
- ii. To analyze how Financial Companies set Financial Goals, and the extent to which Digital Tools and Technologies provide benefit to this goal-setting process.
- iii. To examine how Financial Companies develop and launch Innovative Financial Products and Services, and the extent to which these products and services are based on Digital Technologies.
- iv. To analyze how Financial Companies Invest and Finance, and the extent to which Digital Technologies improve the effectiveness of these strategies.
- v. To evaluate the strategies of Financial Companies to maximize Performance and Operational Efficiency through Digital Solutions.
- vi. To provide Financial Companies and Policymakers with practical recommendations on how to maximize the benefits of Digital Transformation in Financial Strategy Development.

Study assumptions

Drawing from the literature and theoretical basis, the hypotheses are as follows:

Hypothesis 1:

Digital Transformation will have a statistically significant effect ($\alpha \leq 0.05$) on Financial Strategies of Companies in Saudi Arabia.

Sub-hypotheses:

1. First sub-hypothesis:

There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of digital transformation on the financial strategies of companies in setting financial goals.

2. Second sub-hypothesis:

There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of digital transformation on the financial strategies of companies in developing products and services.

3. Third sub-hypothesis:

There is a statistically significant effect at a significance level ($\alpha \leq 0.05$) of digital transformation on corporate financial strategies in digital risk management.

4. Fourth sub-hypothesis:

There is a statistically significant effect at a significance level ($\alpha \leq 0.05$) of digital transformation on financial companies' strategies in the field of investment and financing.

5. Fifth sub-hypothesis:

There is a statistically significant effect at a significance level ($\alpha \leq 0.05$) of digital transformation on corporate financial strategies in improving overall performance.

Statistical hypothesis:

• Null hypothesis (H_0):

There is no statistically significant effect at a significance level ($\alpha \leq 0.05$) of digital transformation on the financial strategies of companies in Saudi Arabia.

• Alternative hypothesis (H_1):

There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of digital transformation on financial companies' strategies in Saudi Arabia.

Study Terms

1. Banking inclusion

Inclusion in finance and banking means providing all members of society equal access to financial and banking products, including bank accounts and the ability to save money, use payment methods such as check cashing or debit cards, obtain credit or loans, and invest money through safe and simple means. Financial inclusion means providing a banking environment to all, including low-income individuals, and those living in rural or underprivileged locations that have traditionally been excluded from the banking industry, thus aiding in reducing the effects of financial exclusion and increasing economic and social integration.

2. Digital banking services

The services offered by A banks are provided electronically to consumers via Digital channels such as Mobile Banking Apps, Websites, Digital Wallets, Interactive Teller Machines, etc. This allows consumers to transact Safely and Easily With Less Expense than traditional methods of transacting with a bank. Services Provided By Banks Through digital channels include but are not limited to Online Account Application, Electronic Payment Processing, Same Day Transfer Processing, Account Monitoring/Management via Mobile platforms and Digital Financing Platforms.

3. Financial exclusion

Financial exclusion is here defined as the inability or unwillingness of some members of the population to use the conventional financial system due to social, economic, and technological barriers. Digital Transformation represents one of many ways to overcome this financial exclusion through low-cost and much more easily available financial services that are often needed by communities that have historically lacked access to financial institutions-such as Community Banks.

4. Digital financial literacy

Digital Bank Literacy is an awareness of the user skillset and knowledge required to safely and effectively use digital banking services, and is a major contributing factor to successful digital transformations. Having a high and accurate level of knowledge regarding digital banking will influence how well customers will utilize the latest digital banking technologies to become financially included.

Previous studies

1. Abu Al-Ezz study (2021)

The goal of this research was to investigate the ways in which the digitization of money through technology has influenced financial access by African nations in their individual banking systems and who uses them. The analysis included an assessment of the benefits of additional customer access and lower costs to receive banking products. Overall, it supported the conclusion that the availability of these types of services greatly aids disadvantaged individuals with limited access to money management tools. As a result, it recommends the development of supporting systems (for example, digital technology) and the implementation of policies that support the expansion of financial services to under-served populations.

2. Al-Balushi et al. (2021)

The objective of the present study was to evaluate how academic institutions are approaching and undertaking digital transformation, with an eye toward future application of the results obtained to the financial sector. The investigation found that many organisations are still at an early stage of progression and that the implementation of digital transformation has not progressed significantly enough for these organisations to be considered effective. Recommendations include creating a comprehensive national strategy for digital transformation, improving partnerships among institutions of higher education and providing training opportunities for individuals who wish to develop expertise in this area.

3. Al-Enezi (2020) study

This study examined how the process of digital transformation impacts risk management activities related to FinTech and, by extension, the electronic banking environment in Kuwait. The finding was that while the introduction of digital transformation to the financial services industry increases both technology- and security-related risks, it enhances the delivery of those services. It recommended developing more robust cybersecurity infrastructures and creating electronic risk-monitoring capabilities.

4. Ramzani and Zhang (2024) study

The objective of this research is to evaluate how digitally transforming organisations (i.e., digital transformation) affects organisational performance by conducting a meta-analysis. The findings clearly show that in companies the effect of using digital technology (i.e., transforming digitally) produces a substantial positive correlation between the improved financial performance and the overall performance of the organisation. Therefore, organisations should develop good strategies for support at the top level of management for digitally transformed organisations. In addition, organisations should begin to embrace and integrate into their operations advanced technologies such as artificial intelligence and data analysis.

Collectively the findings of the above studies show that there are many ways that organisations can leverage digital transformation opportunities to improve their financial services and encourage banking inclusion through the implementation of thoughtful strategies along with adequate security and educational measures necessary for the long-term success and sustainability of these organisations.

Comments on previous studies:

Two important conclusions can be drawn from existing research regarding digital transformation (DT) of the financial sector and the impact of DT on financial inclusion: (1) The DT process allows for improved access to products and services in the financial sector, particularly for historically unbanked or underbanked populations; (2) There are numerous threats to the successful implementation of a digital transformation within the financial services sector.

Many research projects advocate for digital transformation as one that enhances operating efficiency to offer a more transparent financial environment, and this has been identified in the blockchain research by Abu Al-Nasr (2022). On the other hand, researchers like Al-Anzi (2020) have argued that the DT process has been threatened to be disrupted due to growing cyber threats and security challenges. Recent research by Balochia et al (2021) found that a well-coordinated national digital transformation strategy is essential in facilitating and implementing the DTS process to ensure financial inclusion.

According to more current research conducted by authors Ramzani & Zhang (2024), digital transformation has positive effects on both bank operations and overall performance, including financial and operational performance, as well as bank competitiveness and sustainability. Therefore, Integrated Strategies (IS) which includes investing in modern technologies, developing upon digital skill sets of employees, and increasing collaboration between public and private sectors are critical for business success. In addition, Prior research has created a conceptual and practical framework that helps Saudi Arabia develop policies and programs that increase opportunities for financial access as well as balance between risks and challenges of digital transformation with respect to Cybersecurity, Regulatory and Strategic Development Integration.

Theoretical Framework

Digital Transformation

The use of digital transformation includes modifying the form of business an organization provides and its products and services; however, it is a comprehensive approach to how an organization does business, what it does, and in turn, is going to change how an organization thinks about and interacts with its stakeholders.

Digital transformation will include, as a part of its process, using all of the latest technologies in the product/service and process areas described above; those technologies include artificial intelligence (A.I.), cloud computing, big data, the Internet of Things (IoT), and blockchain.

Digital transformation represents the movement of organizations from their traditional way of doing business into an adaptive, responsive, smart way of doing business that will allow them to take advantage of their ever-changing marketplace(s) (Al-Anzi, 2020)

Digital Transformation can be described as having three stages that build upon one another.

1. Digitization - used for digitizing and creating digital assets by converting paper documents into digital formats.
2. Operational Digitization - improves business processes and customer experience using digital assets to maximize the benefits of operational efficiency through automation and cost reduction.
3. Digital Transformation - rethinking the original company model to create opportunities where none existed before. To be able to adapt and succeed with digital technology as the primary force in driving the strategic direction of an organization, the culture of that organization will also need to change to create an environment that encourages innovation through creativity and flexibility.

Benefits of Digital Transformation

Financial and banking organizations may benefit from digital transformation strategies in numerous ways, including the following:

Digital transformation becomes a reality when the customer is placed at the centre of change. Digital technologies offer banks the opportunity to better understand their customers by providing insights into customer behaviour and preferences via the analysis of data analytics and artificial intelligence technologies. As a result of the profound understanding of customers, financial institutions can offer tailored services and streamlined, rapid experiences through a variety of platforms, including Mobile, Digital and Automated Branches. Through mobile banking platforms and electronic payment services, banks enable customers to view their account activity and perform banking transactions 24/7, which fosters convenience and strengthens brand loyalty. (Al-Fadhli, 2023)

Automating the automation of manual/repetitive tasks reduces human error and allows for faster transaction completion. With this capability, human resources are free to devote more time to complex tasks (like developing an advanced financial plan, providing enhanced service, etc.). RPA can perform thousands of transactions each day and have very high accuracy rates. Cloud-based technology allows for significant reduction of technology infrastructure costs (hardware, data storage, etc.) and also enable greater flexibility in the deployment of resources and allocations; thus, converting large capital expenditures into more flexible operational expenses (Mahmoud, 2023).

The emergence of digital transformation has resulted in the establishment of completely new types of products and services offered by banks and other financial institutions. Digital wallets, crowd-funding platforms, and open banking platforms are examples of how financial technology is facilitating customer access to their data (with consent) for third-party service providers to create and deliver integrated services.

Additionally, financial technologies, such as blockchain, are facilitating faster and less expensive methods for transferring money internationally while also serving as a platform for issuing central bank digital currencies.

One of the fundamental strategic benefits of digital transformation for banking and for society is that, henceforth, banks can serve portions of the economy which, to this date, remain untapped. For example, a person residing in a rural area or one who cannot afford a bank account to this date can create a simple bank account and conduct simple banking transactions using their mobile device without ever having to visit the bank's physical branch. These changes in consumer behaviour have also reduced the time and money needed to create a bank account, thus increasing the pool of potential customers for banks. This increase in potential customers not only created additional economic opportunities for the banking industry but also generated value added for society. (Miloud 2014)

By enabling financial institutions to assess risk in a more timely and effective manner, digital transformation has created the opportunity to utilize AI and ML technologies to process vast amounts of information in near real time and quickly identify possible indicators of fraud, money laundering, etc. Additionally, through the use of predictive analytics, businesses are able to better determine the creditworthiness of consumers even if they do not possess access to traditional credit evaluation techniques; there is also an increased opportunity to expand their lending capacity and reduce the risks associated with those types of loans. (Abuhasan 2021)

With increasing competition coming from both other banks and, increasingly, the emergence of numerous fintech companies and tech-giant firms that have developed financial services offered to consumers and businesses; therefore, Digital Transformation is becoming as critical for success as a form of financial services. Organizations that can rapidly deploy digital tools based on changing market conditions, quickly create new product/service offerings, and provide new product/service offerings to their customers offer superior value relative to those organizations that cannot. Organizations that "create" value to their customers create "loyalty" from those customers and subsequent sales growth.

By using technology, it is possible to improve and simplify ways of complying with the complex and ever-shifting laws and regulations that relate to Anti-Money Laundering (AML) /Counter-Terrorist Financing (CFT). For example, regulatory reporting may be automated by collecting the required data through a single source—this is especially true for financial institutions. All data collected by the institution would then be recorded within the blockchain and would be readable by regulators through standardised applications, including certificates or wallets. By using a Blockchain platform to store this information, businesses would experience substantial reductions in their operational costs associated with compliance, while also mitigating the legal risks associated with the regulations governing them. (Ayres 1997).

Elements of Digital Transformation

A digital transformation within an organisation is not only about the implementation of the latest technology but more complex, relating to aspects of the business such as structure of the organisation, culture of the organisation, how people work, and the skills that employees need. Digital transformation is viewed as one journey that has multiple parts and is rooted in a clear digital vision, strong hard infrastructure, data usage, product (and service) innovation, and empowering human capital (i.e., a culture of digital engagement). To begin this journey, an organisation needs to

establish a digital strategy (or digital business strategy). A digital strategy sets the foundation for successful transformation and provides a roadmap for the organisation and common direction and purpose of the digital enterprise.

A digital strategy is not just an updated traditional business strategy, although it could have similarities. It articulates how the organisation will transform the business model to adapt to the digital era, create new opportunities, assess the competition, define both quantitative and qualitative measures of success, be responsive to future business changes, support the overall vision of the organisation, and have the backing of senior leaders. (Carbó, 2017).

For Organizations to be successful with their transformation initiatives, new technologies and digital technologies will be foundational to the success of those initiatives. These technologies must be implemented through the creation of an Integrated Digital Ecosystem (IDE), which are the elements listed above and include not only the core systems and analytical and software platforms but also the means for insuring the security of the IDE through a Cybersecurity Architecture that is designed around fixed asset value, or Security By Design. Integration of the many different systems that make up the IDE into a seamless working environment is essential to ensure that users do not operate within the separate and distinct technology silos of the former model of the organization.

In the Digital Age Data is a valuable strategic asset. Data's Role Is to Manage Data's Value. The evolution of data and technology requires the establishment of a formalized process to manage and analyze data and ensure that users have access to data in at a sufficient level of detail and at a time that will enhance the ability of users to be more successful in their daily work and to enhance the ability of organizations to make better, faster, and more informed decisions to support the strategic direction of the organization (Cuesta, 2015).

The transformation of internal and external processes involves reducing redundancies by means of re-engineering, developing automated solutions to many repetitive process activities through RPA Technology, eliminating unnecessary steps and forming 100% digital workflows. The design of innovative, customer focused digital services including, app-based lending, remote accounts opening and digital investments advice; delivering a better overall customer experience at all customer touch points with the organization. (Lemon, 2019)

The success of Digital Transformation depends heavily on human resources, therefore, developing and reskilling employees is critical to success. To be successful requires an investment in employee training in the areas of Data Analytics, Cybersecurity, Product Management and Design Thinking while attracting new digital talent for innovation purposes. Continued development of a culture which embraces continuous employee learning and flexible organizational structures that support an agile, multidisciplinary model for Digital Initiatives for fast and efficient execution of Digital Initiatives is needed. (Li, 2016)

For digital transformation to be successful, an organization needs to have a strong organizational culture and an effective leadership team to support it. Transformation is fundamentally about culture change. Therefore, leaders must consciously lead by enabling change to happen, removing barriers to change, and encouraging innovation and experimentation while keeping the customer at the centre of every decision and every process. Digital transformation also means that organizations need to foster a work environment that promotes flexibility, agility, collaboration across business units, and an openness to establishing partnerships with fintech companies and other participants within the digital ecosystem. By aligning their strategy, technology, data, processes, skills, and culture, organizations create a foundation for successfully executing digital transformation and remaining competitive in the digital economy. (Mergel, 2019)

Stages of Digital Transformation

Digital transformation does not happen quickly; it is a gradual process over time through phases, some may occur concurrently and different companies will experience it at different rates. The key steps to digital transformation are:

Stage 1: Digitization – Conversion from analog to digital

This is the technical foundation that transforms information from physical documentation to a digital form the computer can manipulate and read. Examples include the following: customer record transfer from paper to database or electronic format, and converting purchased invoice files into PDF format. It aims primarily at preservation, storage, and ease of access for future reference without changing THE WAY things are done. Desde esta fase se inicia una base digital, sin embargo, si la organización se detiene aquí, la fase inicial, no habrá valor significativo agregado.

Stage 2: Operational Digitalization – Improving Current Processes

The organization is utilizing the digital content they generated in Stage One to enhance and develop existing business processes. Their goals are increased efficiency, electric and expense reductions, and better product quality. One example of this would be if the organization implemented an electronic database to automate their loan approval process; or, they could use experience management (CRM) applications to document every customer interaction. Within these stages of development, organizations will begin to realize added value due to an increase in both the

speed and quality of their operations. However, at this stage, the organization is still operating under the same business model that was in place prior to implementing digital technologies. (Muehlburger, 2019)

Stage 3: Digital Transformation – Reinventing the Business Model

The transformational phase is the end result of all previous stages to this point because now not only are processes being improved but they have been completely reviewed and are now offering new methods to create and deliver value to customers. In this phase, the strategic focus of technology moves from simply being part of the support system for business operations to now driving and creating new sources of revenue (i.e., creating new or different types of products and services) as well as allowing businesses to enter previously untapped markets. A few examples of what this means in terms of examples see below:

- Traditional Banking evolves into an Open Banking Platform through access by Third Party Providers using APIs to deliver integrated financial services through API's. Thus, in place of just a bank selling products, banks can offer Subscription Based Services or Banking as a Service (BaaS) for their customers through open banking approaches.
- The introduction of Hybrid Financial Product with Blockchain
- The Change of Product Selling Model to Subscription Services or BaaS.

In addition, as businesses move through this final transformational stage, we expect to see dramatic transformation to the culture, structure, and capability of the organizations and the revenue model in which they operate.

Stage 4: Digital Native Integration – Full Transformation and Maturity

A company is no longer viewing “digital” as an individual feature project within its portfolio. Instead, it has wholly integrated Digital Technology into its daily operations and brand identity. The corporation has developed a robust adaptive capacity to quickly react to the dynamics within the marketplace or changes in technology. Digital Innovation is no longer just about point events; instead, it is a journey that is systemic. The organization places immense emphasis on continuous learning and experimenting as an integral part of its Culture. The Company Is not just being reactive to the changes within the market and technology but is proactively anticipating and preparing. The Company has created a comprehensive Digital Ecosystem with partners. The organization is now considered the hub of Financial and Life Services instead of just a financial institution. Data and Analytics are the main drivers of all decisions. With this, the organization is considered a “Digital Institution.”(Muehlburger, 2019)

Financial Company Strategies

The financial company’s strategies serve as compass and executive plans guiding its behaviour in a turbulent environment with many financial uncertainties and challenges from competitors and regulators and rapid regulatory changes caused by digital transformation. As a result of this Digital transformation, financial company strategies now not only consider cash flow and invest in technologies to provide businesses with operational efficiency, but rather have developed into an enterprise-wide structure incorporating financial acumen, technology, operational flexibility and creating sustainable value for shareholders, customers, and society.

Effective financial strategy provides the link between an organization’s vision for the future and its ongoing operations. It takes the organization’s vision for the future and breaks it down into enforceable, measurable, and actionable action plans, ensuring financial, human, and technology resources will be optimized to execute on the organization’s vision for the future. Therefore, the greatest opportunity presented by digital transformation and the increasing pace of digital technology advancements is to develop and implement financial strategies that continue to provide financial stability and profitability, but also allow companies to take advantage of the opportunities created by digital transformation, while intelligently managing the new risks that come from it. Ozili (2018)

Foundations of Financial Company Strategies

A strong financial strategy is one that has been built upon a foundation and structure that are integrated together, so it is equally able to withstand both issues and maximize opportunities.

By definition, the source of a financial plan should always come from a clearly defined vision of the future for your organization. This vision answers the question, "Where do we see ourselves 5-10 years from now?" The vision should inspire and challenge your company; for example, digital transformation within your company or focus on sustainable practices will be major industry changes that could create huge growth prospects or present new and significant challenges if they are not accounted for in your vision.

A company's financial strategy should never be treated as a separate document from its overall business strategies. The financial strategy of a bank, for example, if it intends to become "the premier provider of digital financial services in the market," should be a major focus of the company's financial investments toward digital R&D, developing innovative products in the digital space, and attracting the right talent to develop and deliver these products. (Ramzani & 2024)

The Financial Services sector is facing a very high level of variability, volatility, and instability in how the services are being delivered. Macroeconomic variable’s include the changing trends of interest rates, inflation rates, and

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economic growth. Financial Services firms also need to deal with the continually changing and evolving regulatory and legal landscape, which includes new technologies that are requiring legislation, like CryptoCurrency and the introduction of Open Banking, as well as competing against Tech Giants/FinTechs. The customer's use of Financial Service Products has dramatically changed from wanting the standard products, now they want fast, custom, and technologically automated solutions.

For this reason, Financial Services organisations must implement flexible and adaptable Financial Strategies in response to these changes occurring in their ever-changing environment. In addition, Financial Services firms must invest in their ongoing monitoring systems, or Market Intelligence systems, and develop their Scenario Planning systems so that as the environment changes, they will have options available to them.

To successfully implement a financial strategy, financial planning must include an integrated risk management system from the very beginning—financial planning cannot occur after an organization has already implemented its business activities.

An organization's financial strategy must begin with an integrated risk management framework to provide the organization with a path to manage the risks that it will face, and to allow it to adapt to changes in the environment. All financial strategies must include the traditional types of risks that an organization will have, such as credit risk, liquidity risk, and market risk—all of which will have a direct impact on financing, investing and managing assets.

The digital economy has led to the emergence of a new category of operational risk, which represents a growing challenge for financial institutions, primarily in the form of cyber risks resulting from technology-related breaches; privacy and regulatory compliance risks resulting from the growing trend of using digital channels; and reputational risks that can arise from technical failures or problems with digital systems. To effectively manage these new types of risks, organizations will require greater preparedness, more sophisticated and complex preventive strategies, and will require greater efforts to reduce their exposure to these new types of risks.

Included in integrated risk management are also the strategic risks related to the potential loss of effectiveness of the current business model, for example through new technologies or competitors overtaking the institution, which could lead to reduced competitiveness of the institution. Therefore a comprehensive and effective financial strategy should not only aim at avoiding risk, but clearly identify risk accurately through sound methods and metrics, accept risk at the expected return acceptable to the institution, and apply effective mitigation strategies to ensure the long-term viability of the organization in an unpredictable business world.

An effective financial strategy should be centered on creating sustainable value over the long term for all stakeholders associated with an institution, including its shareholders and employees. The definition of "value creation" has changed from maximizing short-term profits to developing holistic systems that will strengthen the position of an institution in society and enable its sustainability in the future. To create value, an institution must understand customers' desires through product innovation and superior experiences that meet their needs in the present and future, which fosters customer loyalty and cements the relationship between the customer and the institution.

Value creation also extends to employees in that investment in the development of the employees' skill set and their capabilities helps in building a motivated and productive workforce. An inspired, qualified workforce generates innovative ideas and a continuous cycle of improvements in the institution's productivity and competitiveness. Training programs, establishment of clear career progression pathways, and support for an organization's positive work culture are all elements of long-term investments in quality and efficiency.

While these investments into customers, employees, and communities may seem like extra expenses up-front – in reality, their impact will come through over time as they create loyalty, build brand reputation, and increase an organisation's ability to withstand crises – resulting in increased profits and enhanced organisational sustainability.

Digital Transformation and Financial Company Strategies

Today, societies around the world are experiencing a rapidly growing wave of digitised transformation, resulting in substantial changes to how the global economy operates, the new way of creating wealth, and the way financial services are offered (ie banks, insurance firms, non-banks) to customers. Digital transformation has quickly evolved from being the latest trend or creative solution for businesses to now being an essential element of business survival and success in a very unpredictable and complicated environment. By investing in innovations such as AI, Data Analytics, Cloud Computing, IOT, etc., the financial services sector has shown great improvements in productive output and utilised creativity in providing better quality customer services and developing new revenue sources through innovative revenue streams. (Romer, 1990).

In financial institutions, the digital transformation begins with an explicit plan, including reorganizing business processes, leveraging analytics to inform decision making, building platforms that allow customers to access products and services, and developing systems to help protect customer information (cybersecurity). Digital transformation is a vital component of a comprehensive business strategy as it drives increased productivity and reduces operating costs

while also providing opportunities for establishing new customer segments, especially for those who heavily utilize digital services.

In addition to enabling financial institutions to develop more accessible and efficient delivery systems, digital transformation creates opportunities to build and enhance traditional products and services through innovative use of technology. Digital transformation allows for the establishment of a presence in the global digital economy and enables financial institutions to participate in an innovation and creativity-based economy. Digital transformation results in many benefits for financial institutions, including increased competitive advantage, improved operational efficiencies, enhanced quality of strategic decision making, and decreased operational risk. Salkind (2020) mentions these advantages of digital transformation for financial companies.

The relationship between digital transformation and various economic variables

Digital transformation is a game-changer for economies, as this new way of thinking about and using technology has drastically changed how businesses operate and created new ways to improve productivity, create new services and products, and increase the volume of sales. Digital transformation will create more skilled workers, but the jobs they are creating will be different than those found in the traditional economy due to the creation of new types of jobs that require new skills to perform. Digital transformation is also influencing how businesses spend their money on research and development by providing new opportunities to invest in innovative technology companies (such as fintechs) and generate new ways to create revenue through eCommerce and online payment processing.

Digital transformation is a process that will continue to evolve and will likely create even more job opportunities, particularly for people who have the required skills. This process will also have a positive impact on the flexibility and adaptability of the workforce as more companies move toward digitization of the workplace. Digital Transformation will continue to impact all sectors of the economy and will drive innovation, growth, and profitability across all sectors of the economy, and will continue to provide an opportunity for businesses and their employees to grow and compete effectively.

The increased efficiency of the utilization of resources from digitizing the economic transactions of individuals increases the effectiveness of their utilization through the digitization of those economic transactions. Digital technology has allowed for the creation of new ways to connect people and businesses, allowing them to be connected to one another through new and innovative means.

Digital transformation presents SMEs with an avenue for entering international markets through the creation of digital platforms for cross-border electronic commerce. In fact, online platforms provide the facility to operate in more than one country without the burden of high overhead costs.

The Internet of Things has enabled better visibility and tracking of products and goods within global supply chains. By using these technologies, organizations can know in real time where their products are and how they are being treated as they move down the supply chain. This improved visibility and tracking capability provide the ability for organizations to respond quicker to marketplace demand, with greater accuracy and the ability to reduce costs associated with delays in product delivery.

With digitization of their transactions, individuals and businesses are more capable of paying their taxes and joining the formal economy. Digital payments and the documentation associated with them give the government the ability to collect taxes while providing access to financial products to individuals and businesses.

Digitization is increasing efficiency in the economy and the level of economic productivity. Businesses moving into a formalised economy from an informal economy will be using electronic modes of payment and keeping electronic records, thereby giving increased access to these services to their customers, which in turn will drive the growth of the digital economy.

Moreover, digital transformation enhances the quality of data that will be available to business leaders and enables government leaders to better implement their fiscal and monetary policies. While there are significant economic benefits arising from this digital transformation, it has also given rise to a new set of problems that governments and other actors need to address, such as the possibility of cyber-attacks against financial systems. This calls for the development of relevant regulatory and legislative frameworks to protect the digital economy for its long-term sustainability.

The relationship between digital transformation and economic growth

A close relationship exists between Digital Transformation and Economic Growth according to economic studies, the adoption of Digital Technologies improves all three factors of Production (Labour, Capital, & Technology). Digital Transformation increases productivity for workers due to the digital tools supplied to them that allow them to complete their complex tasks faster, with less error, and more flexibility at work. Digital Transformation also contributes to the creation of high-quality jobs in areas that have high value and require high-level skill sets, such as programming, data analysis, cybersecurity and digital experience design. (Werth, 2020)

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Digital Transformation provides Capital with better use of assets by utilising newer technologies to provide efficiency through reducing excess and improving Predictable Maintenance of the equipment, leading to the equipment having a longer useful life and reduced replacement costs. Digitisation allows markets to re-direct Capital towards areas of higher added value; for example, developing Digital Products and Service has been developed, invest within Smart Analytics, and encourage Digital Subscription Business Models.

Digital Transformation is a significant factor for Growth in terms of Technology by Increasing Innovation by providing Businesses with the tools necessary to build New Business Models using Products and Services That Were Never Possible Before. Digital Transformation allows for Businesses to use Intelligent and Flexible Manufacturing Techniques That Utilise Data to Make Decisions via Artificial Intelligence. This Increases Economic Growth by Increasing Productivity in Key Economic Sectors such as the Manufacturing, Services, Finance and ECommerce Industries. Digital Transformation also Impacts National Productivity, as Studies Indicate Countries That Make Investments in Digital Infrastructure and Digital Human Capital Develop Higher Economic Growth Rates than Countries That Do Not Implement Digital Strategies. The Digital Economy Provides Improved Access to Information and Reduces the Costs of Access to Information; this supports The Development of More Efficient Business Environments, and therefore Assists Companies in Their Operations/Expansion and Supports New Innovations.

Digital transformation and the impact of economic growth are of special significance for developing countries because it provides access to new economic opportunities, financial service access, and government & administrative efficiencies via the establishment of Digital Government (Digital Gov) services that enhance the connection of officials and citizens. These means of digital transformation will ultimately enable the growth of sustainable and inclusive economic development (Weritz·2024).

The Digital Transformation of Financial Services

Over the last decade, financial services have changed critically based on advances in Financial Technologies (FinTech) and increasing consumer demand, along with a requirement for faster, flexible, and secure financial services. With the Digital Transformation of Financial Services, the nature of Financial Services has changed, how we deliver these services has changed, customers' experience with the services we offer has been improved, and our Operating Costs (OC) have decreased.

The Digital Transformation of Financial Services is about how to deliver Financial Services through Advanced Digital Technologies (ADT) such as e-payments; Online Banking; Mobile Banking; Digital Investment; Digital Insurance; Automated Lending; Algorithmic Wealth Management (robo-advisors); and all the other various ADT methodologies used to enhance Financial Services. Additionally, financial unique technologies include: Artificial Intelligence (AI)-used to evaluate customer wealth, understand their behaviours, predict their requirements, and Recommend Financial Products (RFPs) that fit their needs.

The introduction of financial technology (FinTech) has increased competition among banks and other financial institutions. FinTech Companies offer new and easier ways to manage your money via eWallets, Crowdfunding, Digital Currency, and Open Banking. This has caused better-established companies to increase the speed of their digital transformation process to maintain competitiveness.

Financial technology has provided improved financial inclusion in that it lets people and small businesses have access to low-cost financial products and services no matter the geographical location or income earned. Using digital financial services allows people to take control of their own finances, while at the same time providing access to services such as instant funds transfer, electronic payments, and digital savings.

Furthermore, in terms of risk management, digital technologies have greatly enhanced the efficiency of operations within financial institutions. Technologies like data analytics have allowed for improved fraud detection, enhanced assessment of creditworthiness, and increased regulatory compliance in a streamlined manner. Blockchain technologies also enhance the transparency and security of transactions through creating immutable records of all transactions.

Some of the more significant ones that the Digital Transformation of Financial Services will pose for financial institutions include the following: increased Cyber Risk, new regulations regarding marketing and provisioning, and protection regarding customer data. Additionally, it is imperative for financial institutions to establish a culture of digital trust in their customers. Therefore, this will imply that a series of advanced security strategies will be established and developed along with the creation of specific positions such as Cybersecurity and Data Management. It will support economic competitiveness and innovation, promote financial inclusion, and improve services for individuals and businesses. In this way, the digital transformation of financial services will provide people's digital empowerment in economic and social development through higher levels of innovation than any other single sector.

Study Procedures

This present study follows a clear scientific methodology in a sequential manner to test the research hypotheses and achieve its main objectives. The procedures to be followed in this study include: the theoretical preparation and conceptual framework stage, the methodological design stage, the preliminary data collection stage, the data analysis and statistical processing stage, and finally the results interpretation and recommendation extraction stage. These were meant to be integrated and consistent with the nature of the research problem and the nature of the society under study.

Study Methodology

The descriptive analytical approach was adopted for this study because this approach befits the nature of the research topic. The approach makes the phenomenon describable as it is in reality without interference or modification; thus, accuracy in depiction of the prevailing situation and identification of the nature of the relationship between the variables, where digital transformation represents the independent variable, and financial strategies represent the dependent variable, is achieved. This approach provides a rich insight into the implications that digital transformation has on the performance and strategies of financial companies due to the systematic description made of actual reality concerning prevailing digital practices in the financial sector.

Indeed, this approach goes beyond description to the analysis and interpretation of data for the purpose of showing patterns, relationships, and logical connections between variables. It combines the theoretical aspect based on explanation and interpretation with the quantitative aspect related to statistical data analysis. This allows for an integrated picture of the phenomenon under study, whether through the analysis of theoretical concepts and models or through the application of field research tools based on figures and statistical data.

It also follows that the descriptive-analytical approach fits well with the main objectives of the present study, which seeks to measure the impact of digital transformation and understand the nature of its relationship with financial strategies. This calls for the use of quantitative tools such as questionnaires that present data amenable to statistical analysis. Through appropriate statistical methods like regression analysis, the strength and direction of the relationship among the variables can be determined. All this supports the accuracy and objectivity of the results. Furthermore, this approach is compatible with most prior studies related to the topic of digital transformation and strategies, thus giving this research a solid methodological framework in keeping with recent scientific trends in this domain.

Study population This target population involves those who fit the parameters of this study and are expected to give information and data that will be needed for this study. The population under study for this research includes all employees of Financial Institutions located in The Kingdom of Saudi Arabia, having direct knowledge and understanding of the Digital Transformation process and providing practical data about the Financial Strategies used by their Organisations. The population also entails personnel from various sections within the Financial Institutions, including those dealing with Digital Transformation and Information Technology, Financial Management, Strategic Management, Risk Management, Development and Innovation Management, and Operations Management. It is within the work environment of this population that the primary source of data on Organisation adoption of digital transformation processes and how Financial Strategies are implemented in actual practice can be obtained; as such, it becomes paramount that the researcher gets a comprehensive and detailed grasp of the issue being studied.

Study sample

Due to both the broad nature and the considerable number of people in the research community, obtaining a thorough investigation was difficult. Thus, researchers chose a representative sample from among the research community.

Selection method: A simple random sampling method, which gives every member of the research community an equal chance of being chosen, was used to select project participants. This method helped eliminate bias and increase the possibility of applicability of the results.

Sample size: A total of 84 participants were selected from the financial sector in the Kingdom of Saudi Arabia.

Dependent Variable:

The assumption underlying the research is that the dependent variable (the Financial Companies' Strategies) will be influenced by an independent variable (the result or effect). Therefore, the dependent variable for this study is Financial Companies' Strategies.

In other words, Financial Companies' Strategies can be described procedurally as those programs and activities implemented by the company to achieve its goals and objectives. Financial Companies' Strategies can also be broken down into sub-dimensions including: (1) Financial Goal Setting Strategies, which measure how much of an organisation's access to digital tools (e.g., KPIs, financial analysis software and predictive analytics) assists in determining the financial goals of organisations accurately; and (2) Financial Services Strategies.

Product and service development strategies relate to how much the company develops and innovates new products and services using digital technologies, such as mobile applications, agile development methodologies, and user experience analysis.

Risk management strategies relate to how much the company uses digital tools, such as fraud detection systems, encryption technologies, and blockchain technology, to manage the risks associated with the digital environment.

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Investment and financing strategies relate to how much the company uses digital analytical tools, such as big data analytics, fintech applications, and crowdfunding platforms, in making investment and financing decisions.

Overall performance improvement strategies relate to how much the company uses digital systems and tools, such as enterprise resource planning (ERP) systems, digital collaboration tools, and interactive dashboards, to increase efficiency and overall performance.

All four dimensions and the dependent variable are measured through respondents' perspectives with a set of weighted statements in the questionnaire.

Study Model

The conceptual model of the study illustrates the assumed relationship between variables and facilitates their testing. The model of this study represents a unidirectional effect relationship from the independent variable (digital transformation) to the dependent variable (corporate financial strategies) in its various dimensions.

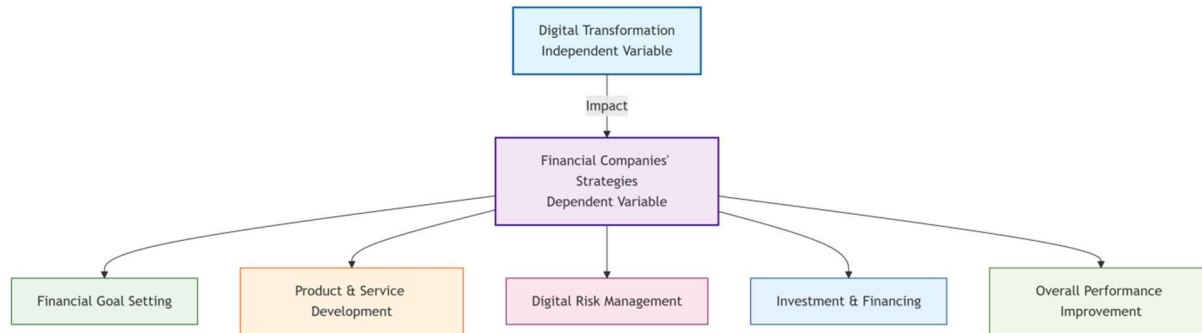


Figure (1): Study Model

Study Tools

The study relied primarily on a questionnaire to collect preliminary data from the study sample (employees in financial companies). This tool was chosen because it is the most suitable for collecting quantitative data from a relatively large and geographically dispersed sample, and it allows for the collection of data that can be analyzed statistically.

Questionnaire design:

The researchers employed three primary areas of interest for their survey and utilized a single scope and time frame (utilizing a closed response question format on a 5 point scale) to gain insight into participants' perceptions, opinions, and attitudes toward the proposed research.

Theme 1: Digital transformation (independent variable)

- **Objective:** determine how much the financial institution utilizes digital tools in their business operation.

- **Sample statements include:** "A large portion of our operations depend on digital tools such as CRM systems," and "We analyze customer information using A.I. technology."

Second axis: Financial company strategies (dependent variable)

- Purpose of Strategy: Measure how much different businesses have adopted digital financial strategy. Five measures are used to assess adoption of digital financial strategy:

1. Create Financial Objectives (For Example "Our Company Uses Digital Financial Analysis Software To Create Accurate Financial Objectives.")
2. Develop Products and Services Like (For Example: "Our Company Utilizes Mobile Applications To Offer Innovative Financial Products.")
3. Manage Risk (For Example: "Our Company Uses Digital Fraud Detection Systems.")
4. Invest And Fund (For Example "Our Company Utilizes Digital Investment Analysis Tools To Evaluate Investment Opportunities.")
5. Improvement of Competitive Performance Of the Firm (For Example: "Our Company Uses Enterprise Resource Planning (ERP) Systems To Improve The Efficiency Of Our Internal Business Processes.")

Third axis: Demographic data

The intent of the study is to gather demographic information about survey respondents as a means of evaluating whether demographic differences exist in how the respondents answered.

Variables measured in the study include gender, age, educational level, position, experience level, and the type of organization/department in which the survey respondent is employed.

Validity and Reliability of the Survey Instrument

Validity – A panel of experienced arbitrators, consisting of university professors who have expertise in financial management and IT, reviewed the survey instrument prior to its administration to ensure that the questions were clear and relevant for measuring the aforementioned variables.

Reliability – The reliability of the survey was assessed with the use of Cronbach's Alpha. The Cronbach's Alpha for all of the variables together was found to be an adequate level (greater than 0.70), which indicates that the survey instrument has a high level of reliability; therefore, the data collected from the survey instrument can be considered reliable.

Based on the data contained in the research file, here are the complete statistical analysis tables, based on the study model and specific dimensions: *Table (1): Description of the demographic sample (n=84)*

<i>Variable</i>	<i>Category</i>	<i>Count</i>	<i>Percentage %</i>
<i>Gender</i>	<i>Male</i>	75	89.30%
	<i>Female</i>	9	10.70%
<i>Age</i>	<i>Under 25 years</i>	5	6.00%
	<i>25 - 34 years</i>	19	22.60%
	<i>35 - 44 years</i>	45	53.60%
	<i>45 - 54 years</i>	12	14.30%
	<i>55 years and above</i>	3	3.60%
<i>Education Level</i>	<i>High School</i>	2	2.40%
	<i>Diploma</i>	6	7.10%
	<i>Bachelor's</i>	47	56.00%
	<i>Master's</i>	23	27.40%
	<i>PhD</i>	6	7.10%
<i>Job Level</i>	<i>Employee</i>	7	8.30%
	<i>Supervisor</i>	34	40.50%
	<i>Department Head</i>	26	31.00%
	<i>Executive Manager (Manager and above)</i>	17	20.20%
<i>Years of Experience</i>	<i>Less than 5 years</i>	12	14.30%
	<i>5 - 10 years</i>	14	16.70%
	<i>11 - 15 years</i>	20	23.80%
	<i>16 - 20 years</i>	24	28.60%
	<i>More than 20 years</i>	14	16.70%

Sample Distribution by Age Group

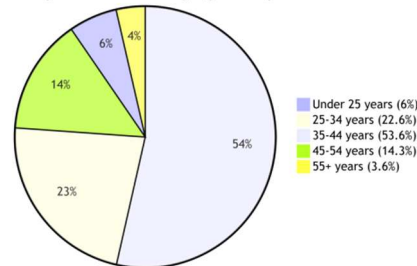


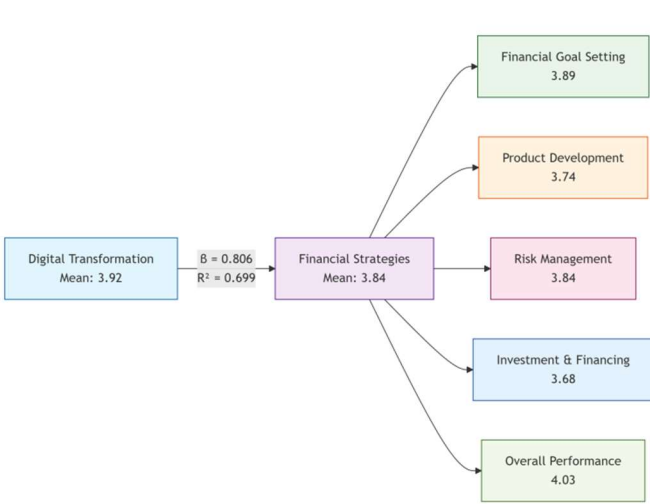
Figure (2): Demographic Breakdown of the Sample by Age
Table (2): Results of the descriptive analysis of the main variables

<i>Variable / Dimension</i>	<i>Number of Items</i>	<i>Overall Mean</i>	<i>Overall Standard Deviation</i>	<i>Verification Level</i>

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First: Digital Transformation (Independent)		8	3.92	0.69	High
Second: Companies' Strategies (Dependent)					
1. Financial Goal Setting		5	3.89	0.69	High
2. Product & Service Development		5	3.74	0.76	High
3. Risk Management		5	3.84	0.22	High
4. Investment & Financing		5	3.68	0.85	High
5. Overall Performance Improvement		5	4.03	0.82	Very High
Overall Mean of Strategies	25	3.84	(derived)	High	

Figure (3): Digital
Impact on Financial
Table (3): Simple linear
to test the main



Transformation
Strategies
regression analysis
hypothesis

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Value	Significance (Sig.)
Regression	24.883	1	24.883	174.338	0.001
Residual (Error)	10.705	75	0.143		
Total	35.588	76			

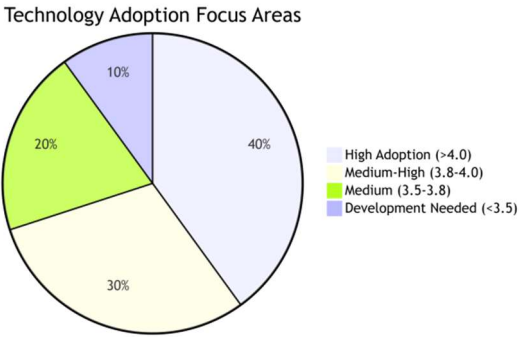


Figure (4): Technology Adoption Gaps Analysis

Table (4): Regression Coefficients (B, β) and Statistical Significance

Variable	Unstandardized Coefficient (B)	Standard Error	Standardized Beta (β)	t Value	Significance (Sig.)
(Constant)	0.689	0.243		2.835	0.006
Digital Transformation	0.806	0.061	0.836	13.204	0.001



Figure (5): Strategic Priority Analysis

Table (5): Analysis of differences between means according to demographic variables (T-test and one-way analysis of variance)

Demographic Variable	Groups	Mean Digital Transformation	Mean Strategies	Test Used	Significance Value (Sig.)	Conclusion (at $\alpha \leq 0.05$)
Gender	Males (75)	3.94	3.85	Two-sample T-test	0.112	No statistically significant differences in estimating both variables between males and females.
	Females (9)	3.78	3.72			
Job Level	Executive Manager (17)	4.12	4.01	One-way ANOVA	0.023	Statistically significant differences exist. Executive managers perceive higher levels in transformation and strategies compared to lower levels.
	Department Head (26)	3.95	3.88			
	Supervisor (34)	3.85	3.81			
	Employee (7)	3.65	3.6			
Years of Experience	Less than 5 years (12)	3.7	3.65	One-way ANOVA	0.085	No statistically significant differences attributed to years of experience in estimating the variables.
	5-10 years (14)	3.88	3.8			
	11-15 years (20)	3.95	3.87			

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	16-20 years (24)	3.98	3.9			
	More than 20 years (14)	3.94	3.85			

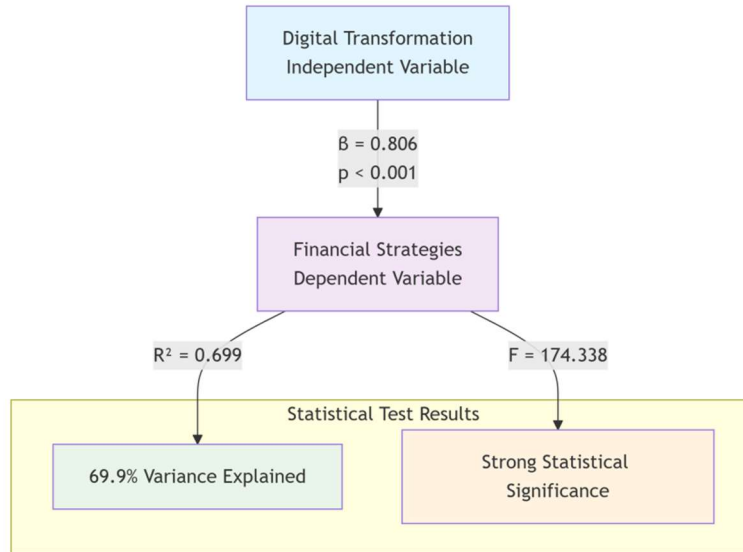


Figure (6): Regression Analysis Visualization

Results of the study data analysis

Based on the analysis of the questionnaire applied to a sample of 84 employees in Saudi financial companies, and using descriptive and analytical statistical methods such as arithmetic means, standard deviation, and linear regression analysis, the main results can be presented as follows. **First**, regarding the extent to which financial companies rely on digital technology as an independent variable, the overall arithmetic mean for the axis was 3.92 on a five-point Likert scale, with a standard deviation of 0.69, indicating a high degree of reliance on digital technology. The highest averages focused on security and services, with information security systems recording the highest level of dependence with an average of 4.37, reflecting the top priority of data protection, followed by customer relationship management (CRM) systems with an average of 4.06, highlighting the importance of improving the customer experience, and then training employees on modern technology with an average of 4.01, indicating companies' awareness of the importance of human capital.

The score for artificial intelligence and machine learning applications was in the lowest range. They received a 3.52 out of 5 on average. This reflects an opportunity for increased utilization of advanced technologies and predictive analysis in Saudi financial services firms. It appears that the use of advanced technology is growing, but at a slow pace as more focus has been on the operational aspect of their operations and security before considering the usefulness of advanced digital technologies, such as artificial intelligence and advanced analytical tools.

The second dimension of the results indicates that companies in Saudi Arabia are utilising various and advanced digital strategies to achieve success through differing levels of maturity, security, operational efficiency, and customer service via basic digital channels. However, there are good opportunities to grow further using advanced digital technologies such as blockchains and AI-based solutions and growing the adoption of new models for funding and investing on a larger scale.

Thirdly, based on our findings about the main hypothesis using simple linear regression analysis, it can be concluded that digital transformation has a statistically significant impact on the strategies of financial companies. The null hypothesis, which states that there is no statistically significant impact from digital transformation, was rejected and it supports the theory of a positive statistically significant association between digital transformation and the financial strategy of firms in Saudi Arabia. Therefore, in this context, the relationship between digital transformation and firm financial strategies is not only correlational but rather causal, as digital transformation accounts for much of the variability in firm financial strategies.

Lastly, throughout the examination of the data, the study produced results that support how Saudi Arabian companies' priorities coincide with the global digital transformation trends; the top three digital goals among the Saudi Arabian

financial sector are Cybersecurity, Enhanced Customer Experience and Improved Internal Efficiency. Furthermore, these results demonstrate that Saudi Arabian financial service organisations are further along the path of "operational digitisation" than other industries, and have begun to invest heavily in "true digital transformation", particularly with regards to Product Innovation and use of Redefined Technology. Lastly, because of the significant differences in means amongst the different levels of the job continuum (whereby Senior Management demonstrated an even greater level of progression), it was shown that the level of commitment and awareness among Senior Leadership will determine whether a financial institution's transformation efforts are successful or not. There was also statistical agreement with the study hypothesis which indicates that digital transformation should not be viewed as simply a technical alternative, but rather as a major strategic investment that is necessary for creating value throughout an organisation's operations.

Discussion of Study Findings

The findings of this research mirror the current state of digital transformation in Saudi Arabia's financial services industry. Moving forward, the findings open up avenues for academic and practical discussion around the scope and impact of digital transformation.

Based on the theoretical framework and existing literature, the findings will be summarised in the following way:

Regarding the current level of digital dependence, there is a uniform & high level of dependence on Digital technology, with an average score of 3.92, which aligns with Vision 2030 of the Kingdom which prioritises Digital Transformation as a leading economic priority.

The high score of 4.37 for Internet Security Systems & the focus on these systems reflect a proactive approach to increasing Cyber Risk challenges, as supported by previous studies (Al Enezi, 2020).

An average score of 4.06 for Customer Relationship Management (CRM) systems demonstrates a transition from the traditional business approach to a customer-centric business model. Additionally, the lower average score of 3.52 regarding Artificial Intelligence & Machine Learning technologies indicates that organisations are still developing the stage of fully leveraging predictive analytics and intelligent operations and presents an opportunity for organisations to gain a competitive advantage by accelerating the adoption of these technologies.

The second part of the analysis looked at the types of digital finance strategies companies have in place and the key themes that emerged from the study. Specifically, in relation to Financial Goal Setting Strategies, companies tended to be very advanced in terms of key Performance Measure Maturity Digital Media Usage (4.10), as well as how they use digital capabilities (i.e., Data and Information) to monitor and track progress toward their ultimate financial goals. However, the substantially lower level of Predictive Analytics (3.77) reflects the fact that the majority of companies are still using Historical Data to forecast future trends and make Financial Planning decisions, thus indicating an area for investment and enhancement that will yield value in the future. In relation to Product and Service Development Strategies, the high percentages of mobile applications (4.00) confirm the increasing importance of using Digital Channels to engage with Customers and are consistent with the increasing Global trend in Financial Services across the globe.

The utilization of the Agile Development Methodologies (3.68) demonstrates an organization's embrace of a more fluid workplace culture and greater ability to rapidly react to market demands and conditions. The average use of artificial intelligence in providing financial advisory services (3.55) has highlighted that there is still a need to improve the level of personalization and intelligence of the services provided by financial advisors. The focus on encryption and security in relation to Risk Management Strategies (4.06) has been identified as a direct response to the risk associated with operating in a Digital Economy; however, the under-utilization of Blockchain Technology (3.43) in providing Crisis Management Solutions highlights that organizations need to adopt Blockchain Technology to provide customers with increased levels of transparency and to mitigate operational risks when performing International Trade Finance or Remittance Activities.

Third, the relationship between digital transformation and financial strategies was explored in this study. The analysis indicated a substantial positive causal connection between these two elements, with an R^2 value of 0.699. As indicated by the R^2 value, digital transformation does not only act as an enabler of financial strategies, but also serves as a major determinant for the relaying of those financial strategies. These findings provide quantitative evidence that supports the assertion made by Ramzani & Zhang (2024) about the positive impacts of digital transformation on the performance of institutions. Therefore, the findings of this study present strong quantitative evidence for financial leaders in Saudi Arabia to invest in digital infrastructure as a means of enhancing their strategic competitiveness.

The fourth point of focus is on Financial Inclusion. While there is no specific section devoted to financial inclusion, the findings related to the increase in mobile application usage and the simplification of digital services implicitly demonstrate that Digital Transformation can help to enhance Financial Inclusion because it creates wider and less expensive financial options and services. This is consistent with the findings of the Abu Al-Ezz (2021) study. However, the findings suggest that there needs to be a stronger focus on the development of targeted strategies for

reaching communities that are currently under-represented, using advanced demographic and behavioural analysis tools.

Finally, the findings indicate that there are some issues with the implementation of new, transformative digital financial models (i.e., through the use of advanced technologies such as Artificial Intelligence and Blockchain), particularly in comparison to their basic equivalents (i.e., the use of Security, Customer Relationship Management and Enterprise Resources Planning systems). In addition, it also identifies the differences in maturity between different strategic dimensions and how these can lead to a lack of uptake for new digital financial models, such as Crowdfunding, which may stifle innovation in the areas of funding and investment.

Sixth and finally, these findings suggest that Saudi Arabia's financial sector is in an advanced stage of digital transformation, having already successfully implemented "Operational Digitization" as a means of improving efficiency and security, while also being on the verge of completing a complete Strategic Digital Transformation where organisations will redefine their business models and value propositions. The strength of the association between strategic digital transformations and organisations' strategies that was evident in the regression analysis indicates that continued and increased Investment by organisations in digitisation and the enhancement of their capabilities as a function of that investment will be the determining factor for success or failure in the future Saudi financial services market. These results demonstrate that what is occurring in Saudi Arabia is consistent with what is occurring globally, thereby providing policymakers and practitioners with a guideline to identify their strengths that can be enhanced, and the opportunities that need to be addressed quickly.

Statistical Testing And Suggested Future Studies

The Hypothesis was tested statistically in this manner:

- **Null Hypothesis H_0 :** The effect of digital transformation is not statistically significant ($\alpha \leq 0.05$) on financial companies' strategies in Saudi Arabia.
- **Alternative Hypothesis H_1 :** The effect of digital transformation has a statistically significant effect ($\alpha \leq 0.05$) on financial companies' strategies in Saudi Arabia.

The results of the statistical tests show that the significance level (0.001) was lower than the significance level stated in the hypotheses (0.05), leading to the rejection of H_0 and acceptance of H_1 . Therefore, a strong statistical effect was established between digital transformation and financial strategies for companies operating in the Kingdom of Saudi Arabia.

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