QATAR UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

ROADMAP FOR DIGITAL BUSINESS MODEL TRANSFORMATION: THE CASE OF

AL-JAZEERA FINANCE (AJF)

BY

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ABSTRACT

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Title: Roadmap for Digital Business Model Transformation: The Case of Al-Jazeera Finance (AJF)

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This study aims to craft a comprehensive roadmap for transforming a physical business model into a digital business model for SMEs of financial services, enabling an effective and efficient transformation. The COVID-19 pandemic showed the substantial need to accelerate the transformation of physical business models into digital models for SME financial businesses to achieve efficiency, agility, and survival. This study adopted the interview qualitative research methodology for a deep understanding of a situation, then action research methodology due to the practice context of the research that enables testing the results. This is due to the design of the action research in an iterative and emerging manner where the outputs of each stage determine the direction of the next step until no further changes are required to the results. The key findings of this study are threefold. First, although a fully digitalized model is feasible for the SME financing services sector, in many cases, a hybrid business model (physical and digital) is still required to have a successful business. Second, the firm's dynamic capabilities of human capital, innovation, and change management are crucial enablers to effectively transform into a digital business model, however, the involvement of the firm's Board of Directors and CEO as sponsors and leaders of the transformation program is a vital success factor. Third, realized challenges for successful digital transformation can be divided into internal (e.g. culture and cost) and external (e.g.

regulations and suppliers' capabilities). This research paper is among the few addressing the SME context and the importance of financial services in the market of Qatar. Moreover, it is a practical tool for testing existing published related frameworks.

Keywords **-** Business Models; Innovation; Digital transformation; Hybrid; SME; Financial services; Qatar.

DEDICATION

My thanks and gratitude to God Almighty who guide and help me,

To my dear parents, may God have mercy on them,

To my wife and companion,

To my beloved sons and daughters,

To my dear brothers and sisters,

To my dear friend Muhammad Al-Haifi

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"I would like to acknowledge the support of Qatar University for providing all the needs to achieve the requirements of this study"

My special thanks go to my professor, Dr. Ramdani who did not skimp on me with sincere guidance and support throughout the project period.

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CHAPTER 1: INTRODUCTION

According to market trends and customer expectations from the SME Financing Services industry to offer digital products and services via a digital business model, which in turn, enables the firm to enhance the business performance from different aspects such as cost cuts, sustainable innovation, and improved productivity (ULAS, 2019). Additionally, the impact, of COVD 19 pandemic accelerates the need for digitalization in many aspects of our lives including shifts of payment behavior to online instead to cash (Mckinsey, 2021).

Accordingly, crafting a comprehensive and effective roadmap for transforming a physical business into a digital business model for SME financing services requires understanding the business and customer expectations from this transformation.

Initially, it is very appropriate to understand the customer expectations from the financial services firms and then from digital services. The recommended twelve ways banks/financial services can exceed customer expectations (IBM, 2015), which represent customer perception of financial services firms' expectations in general, are summarized below:

> *"Find me, Ask me, Advise me, Know me better, Stick with me, Excite me, Compare me, Trade with me, Educate me, Alert me, Let me choose, and Protect me."* (IBM, 2015)

Furthermore, according to (Ravi Padaki, 2015) the customer expectations from the digital model are:

> *"Goal to accomplish, anytime, anywhere, any service, simplify the security process, don't make them think, omnipresence, "You must know me by now", rethinking the WHOLE process, speed… and they get it! augment hybrid experiences (channels and branch visits), and a digital user expects you to be there for him/her (human relationship)."* (Ravi Padaki, 2015)

The targeted transformation is an aspect of innovation for a business model; the **driver** and the added value of innovation are for achieving faster growth (Pohle, 2006) by growing to new markets, operation competition based on low-cost, and technology best use (Teece, 2009). Additionally, as mentioned COVD 19 pandemic accelerates the need for digitalization innovations in many aspects of our lives and shifts payment behavior to online instead to cash (Mckinsey, 2021). Innovation generally increases competitiveness and improves brand recognition and value, achieving new partnerships, increasing turnover, and improving profitability (nibusinessinfo, 2022).

The expected **outcomes** from digital transformation are to boost business growth, access to the global market, improve market intelligence, sustain protection against digital disruption, faster and more successful innovation, and a new revised business model. Moreover, a significant competitive advantage, greater customer interaction, and collaboration (VERINA, 2019).

Regarding the research context as business model innovation, the business model needs to be **represented** appropriately to identify the business dimensions of innovation and the components/elements under each dimension. After that, choose the appropriate innovation model **framework and/or approach** that fit the business model for the targeted innovation by clearly enabling the demonstration of the business values, navigating, and integrating them during the innovation journey (Ramdani, 2019).

Moving forward, explore the **forces** that impact the innovation and manage them, which may be classified as drivers, enablers, risks, and challenges/barriers. Then moving to the practical question of **how** to carry out the innovation, considering how to deal with all forces that impact the business innovation during the novelty journey. Furthermore, if the adopted innovation strategy is to achieve continual innovation to achieve a

sustainable competitive advantage, it is recommended for firms establish and cultivate their **dynamic capabilities** to sustain their performance while innovating their business models (Demil, 2010).

Based on the above this study aims to craft, adopt, and test a comprehensive roadmap for transforming a physical business model into a digital business model for SMEs of financial services, which will enable an effective and efficient transformation. This study, in its turn, will **contribute to the literature** as a practical test of the Business Model Innovation Analysis Framework (Ramdani, 2019) and Digital transformation framework (MIT, 2011) in the Al-Jazeera Finance company as representative of SMEs financial services industry services in Qatar. Moreover, this study could apply to other similar financial companies such as financing, investment, insurance, money exchanging, and trading platforms. The other essential contribution of this study is exploring the required dynamic capabilities for achieving continuous innovation for sustainable competitive advantage aligned with a business strategy as illustrated above.

1.1. SMEs Finance in Qatar

Three finance companies are licensed in Qatar to operate under the supervision of the Central Bank, Al-Jazeera Finance, First Finance, and Qatar Finance House. All of which are providing SMEs and personal finance. They are categorized under SMEs according to Qatar's definition announced in November 2015 through the Global Entrepreneurship Week (GEW) event (QDB, 2020). These companies are:

i. **Al-Jazeera Finance**: Al Jazeera Finance (AJF) was established in 1989 as a finance company that provides products and services in compliance with Islamic Shari'ah for SMEs and personnel. By the end of 2019, the shareholders' equity of

the Company accounted for 917 million Qatari Riyals. This study has been conducted for Aljazeera Finance only.

ii. **First Finance Company**: First Finance Company (FFC) was established in 1999. In 2010, Barwa Bank acquired 100% of the Company's shares. First Finance Company provides financial products and services in compliance with Islamic Shari'ah principles for personnel and SMEs. At the end of 2019, shareholders' equity in the Company accounted for 1.6 billion Qatari Riyals.

iii. **Qatar Finance House**: Qatar Finance House was established in 2006 as a private Qatari shareholding company licensed by Qatar Central Bank, to provide personal and SME finance, by Islamic Shari'ah principles. At the end of 2019, shareholders' equity accounts for 131 million Qatari Riyals.

1.2. Background on Al-Jazeera Finance

Al-Jazeera Finance is a national financial institution that targets SMEs, and personal finance specializing in Islamic finance. It was established in 1989 as a limited liability company with its headquarters in Doha, State of Qatar. Over the years, Al-Jazeera Finance has enjoyed a period of constant growth and has expanded its operations by opening a total of 3 branches in prime locations across the capital city (Doha) to become a notable player in the local market. In 2019, more than 100 people worked at the company and its financial assets exceeded QAR 1.2 billion (USD 330 million). The Net Operating Income accounted for approximately QAR 109 million (USD 30 million) (b-mashura, 2019).

Aljazeera Finance has initiated the digital transformation program from 2017 to 2024 to accomplish the total digital transformation, this study covers a roadmap for the full transformation and covers the activities between mid-2021 and mid-2022.

1.3. Research Gap

Based on the conducted literature review, the author argues a shortage of comprehensive approaches or a roadmap for a physical business model transformation into a digital business model for SMEs in the financial services sector. The required roadmap for business model transformation needs to address both digital transformation and business model innovation concepts. The second gap found was about performing a practical test related to published frameworks such as MIT (2011) and business model innovations such as Ramdani et al. (2019). Thirdly, available studies have not dived deeply into the business' activities level covering all the addressed business/industry dimensions.

Accordingly, to fill the knowledge gap the below research question was crafted:

How to move from a physical business model into a digital business model for an SME operating in financial services?

1.4. Research Objectives

To achieve the aim of this study and answer the above research question, I intend to:

i.   Explore and represent the business model dimensions and elements that constitute business model innovation.

ii. Outline critical activities of business model elements that enable conducting effective business model transformation from physical to digital for a financial service SME.

iii. Explore how the digital ecosystem of a financial service SME contributes to the success of business model transformation from physical to digital.

iv. Determine the internal and external challenges of business model transformation for a financial service SME.

1.5. Research Rational

The study will contribute to filling the gap and the need of designing and testing a comprehensive and clear digital transformation roadmap for SMEs' financing services. Moreover, the study has a respectable contribution demonstrating the influence of scientific research as an action methodology in the practical world by realizing the contribution to achieving an effective and efficient digital transformation.

This efficiency that reduces the risk of failure and is considered a key success factor will be achieved through

   i.   The ability to develop an accurate, dynamic, and interactive implementation plan for a long-term digital transformation journey,

  ii.   Attracting the digital transformation investors to sponsor and support,

 iii.   Utilizing and benefiting from all related parties' expertise,

 iv.   Identifying, establishing, and cultivating the firm's dynamic capabilities.

CHAPTER 2: LITERATURE REVIEW

There are several business model innovation frameworks and approaches for digital transformation. However, based on the analysis of existing literature on the topic, there is a lack of approaches used by SMEs to transform their Business Model from Physical to Digital.

Thus, the targeted literature review and articles have to include the knowledge areas of business models and forces that impact the transformation which include the related definitions, business model innovation drivers, digital transformation drivers, digital transformation enablers, business model innovation challenges, business model innovation frameworks digital transformation frameworks, business model innovation, digital transformation roadmaps, and finally digital transformation outcomes.

2.1. Definitions

The study strategy is to select the most appropriate definition for this research topic and context as illustrated in Table 1.

Table 1: Definitions of Study Key Terms

Term	Definition	Reference
Business Model	"Defines the way the enterprise creates and delivers value to customer … and how it will capture a portion of the value that it delivers ... and then captures a portion of this value … to make a profit and grow."	Teece, (2010)
Digital Transformation	"Is the application of technology to build new business models, processes, software and systems that result in more profitable revenue, greater competitive advantage, and higher efficiency".	Schwertner, (2017)

Term	Definition	Reference
Business Model Innovation	"Is a better way to create, deliver and capture value".	Kaplan, (2012)
Small and Medium Enterprises (SMEs)	"Are the companies registered in accordance with the laws of the State of Qatar, where the number of labor force does not exceed two hundred and fifty (250) employees and with an annual turnover that does not exceed one hundred (100) million Qatari Riyals"	QDB, (2015)

2.2. Business Model Innovation Drivers

According to market trends and customer expectations from the SME financing services industry to offer digital products and services via a digital business model, which in turn, enables the firm to enhance the business performance from different aspects such as cost cuts, sustainable innovation, and improved productivity (ULAS, 2019). Additionally, the impact, of COVD 19 pandemic accelerates the need for digitalization in many aspects of our lives including shifts of payment behavior to online instead to cash (Mckinsey, 2021).

The targeted transformation is an aspect of innovation for a business model; the **driver** and the added value of innovation are for achieving faster growth (Pohle, 2006) by growing to new markets, operation competition based on low-cost, and technology best use (Teece, 2009).

Ramdani et. Al (2019) explored the business model innovation drivers as internal drivers such as top management capabilities and growth directions. Secondly, organizational culture such as strategic flexibility, employees' commitment to adventure, and acquiring solid platforms. On the other hand, the external drivers explored are regulations, client demand, new technologies, competitive pressure, industry demands, and service providers.

2.3. Digital Transformation Drivers

The top findings of business expectations or drivers for the digital model of SMEs Financing Services according to the conducted middle-market survey (BDO, 2019) were:

i. The highly anticipated returns/ROI, (71%) participants believe that businesses have experienced a revenue increase from digital initiatives

ii. Operational efficiency, (72%) of participants say replacing or upgrading legacy IT systems is critical for boosting business efficiency

iii. Improving customer experience, (16%) of customers consider addressing customer experience as the prim priority, while (17%) of customers consider poor customer experience is considered the main threat.

iv. Empower shifting from a reactive to a predictive approach through utilizing the Internet of Things (IoT), and Artificial Intelligence (AI) as Robotics & Blockchain.

v. Cultivates employees' experience and matures business decisions based on strong data analytics.

vi. Satisfy the need for cyber security, data privacy, product agility, and compliance with regulatory and governance standards.

Hence after, key strategic business directions and priorities for an effective digital business model for the coming three years include mastering digital marketing, improving product agility, launching open banking, and directing customers toward digital services (NTT-DATA, 2019).

2.4. Digital Transformation Enablers

This part of the literature review explores the digital transformation enablers, which consist of strategic approaches (Donovan, 2020) and a digital ecosystem including a digital platform/infrastructure (UN, 2019).

Strategic approaches and directions are required to build a financial services platform that involves sourcing the right talent and implementing agile at a firm's scale not only IT and keeping the customer at the center of focus. In addition, utilizing the right data at the right time, fast comprehensive innovation, partnership, and open platforms (Donovan, 2020).

The United Nations (UN, 2019) defined the Ecosystem components as follows:

> *"The ecosystem of digital financial services consists of consumers, businesses, government agencies, and non-profit organizations that need digital and interoperable financial products and services; the financial services providers that serve them; the infrastructure through which services are delivered; and government policies, legal frameworks, and regulations"* (UN, 2019)

Andreas Hein, (2019) concluded that various digital platform ecosystems differ based on three core building blocks: platform ownership, value-creating mechanisms, and complement autonomy.

Based on the above, the author argues that it is convenient to explore the key required platform components to be reflected on the constructed digital platform that can integrate and utilize the digital ecosystem as specified below:

i. **Omni-channels** achieve single customer experiences across channels and devices mainly for retail customers (Saghiri, 2017) and also achieve a unified customer experience, integrated data analytics, and an effective supply chain - adapted from National Retail Federation - (Jocevski, 2019).

ii. **Modular product** adoption to suit the business needs is a key component in the design to best fit and utilize any ecosystem that satisfies constant innovation (Weill, 2018).

iii. **Middleware** is the key feature gained by open financial services such as Application Program Interfaces (APIs), that is to achieve efficiency, customer-oriented solutions, and easy integration with other solutions including FinTech, Digital Payment Systems, and data standardization and control while sharing (NTT-DATA, 2019).

iv. **Data analytics** is an essential tool for superior business decision-making such as developing customer retention and acquisition plans, managing risks, marketing ideas, and effective advertisement, direct product development, innovation, and enhancing the management of the supply chain (Compunnel, 2020). Considering that, the sources of data could be various for example, Self-Generated, Existing Data, Free Available, Customer Provided, and Acquired data (Brownlow, 2015).

v. **Clouding services** empower digitalization from different important angles: scalability, reliability, competitiveness, security, affordability, and accessibility (Attaran, 2018).

vi. **FinTech** technology utilization such as Blockchain, AI, IoT, And Robotics. Blockchain (BC) will increase transparency, accurate tracking, and permanent and cost ledger. Artificial intelligence (AI) will be a key forecaster of profitability and revenue growth, a repository for huge quantities and structured and unstructured data varieties. Developments in AI), robotics, and capacities will become trustworthy alternatives for many workers (PWC, 2020). Since 2008 FinTech entered the financial services in many offerings including Bitcoin,

Crowed investment, Robo advisory platform, and High-frequency trading (Alt, 2108).

vii. **Security** represents a crucial challenge for digital transformation from different views, mainly dealing with cryptocurrencies is the most critical challenge, especially with the level of uncertainty regarding the regulatory environment, capabilities, and contribution (Breidbachetal, 2020).

In summary, mentioned drivers in sections 2.2 and 2.3 demonstrate the business benefits of Business Model Innovation (BMI) and digital transformation such as achieving more investment returns and customer satisfaction. The mentioned enables in section 2.4, in its turn represent mainly the firm's capabilities that empower conducting efficient Business Model Innovation (BMI) and digital transformation such as strategic approaches and digital platforms.

2.5. Business Model Innovation Challenges

Bashir, (2021) based on a systematic review has concluded multiple barriers or challenges to business model innovation were classified into the following:

i. **Cognitive** barriers are represented by a lack of managerial know-how and the complexity of the business model (Foss, 2016).

ii. **Organizational** barriers are represented by leadership gaps and organizational resistance to business transformation and innovation (Foss, 2016).

iii. **Institutional** barriers represented business strategy, lack of funds, systems, policies, and procedures (Lopez, 2019).

iv. **Market** barriers are represented by a Lack of information, monopolies, and relative cost of labor (Lopez, 2019).

v. **Behavioral** barriers are represented by a Lack of attention, lack of perceived control, and lack of information (Lopez, 2019).

vi. **Technological** barriers are represented by the technical know-how cost of technology, and unable to support technology (Lopez, 2019).

Ramdani, (2020) argues internal challenges are top management, and organizational culture in contrast the external challenges are crises, regulations, client demands, new technologies, competitor pressure, industry demand, and services providers.

2.6. Business Model Innovation Frameworks

Teece (2010) states that the firm's exploration of new approaches to determine value propositions and create and capture values for customers and partners is an organizational innovation. In his article Amit (2013) argued that duplication of an activity that is novel is seen often more complex for competitors to imitate a certain product or process. Therefore, the innovative business model (IBM) will lead to a persistent competitive advantage so reviewing business model innovation frameworks is required to test and enhance the study outcomes for the business benefits.

Antikainen's (2016) business model innovation framework consists of three layers illustrated as the business ecosystem layer (Trends and drivers, stakeholder involvement), business level (partners, resources, activities, value proposition, customer relationships and collaboration, channels, revenue streams, customer and stakeholder identification, and understanding), and sustainability impact (requirements and benefits) as illustrated in Figure 1.
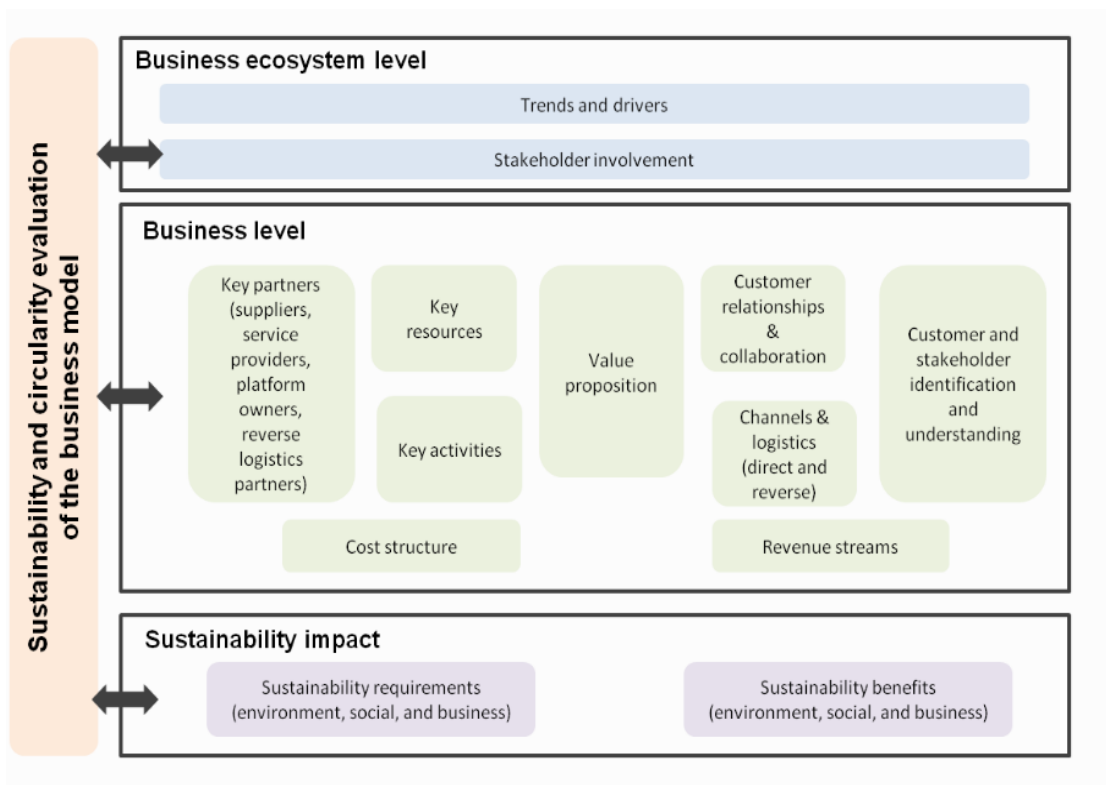
Figure 1: The Framework for Sustainable Circular Business Model Innovation
(Antikainen 2016)

The main advantage of Antikainen's framework is the inclusion of three key
dimensions which are the business ecosystem, business, and sustainability impact as
shown in Figure 7. However, the business model did not dive deeply into the business
activities level for conducting the innovation.

According to Ramdani et al. (2019), the four dimensions of the business model
innovation analysis framework are value proposition, operational value, human capital,
and financial value. Each dimension has four elements that are relevant to business
model innovation as shown in figure 2.

Figure 2: Business Model Innovation Analysis Framework (Ramdani, 2019)

Ramdani et.al (2019) framework effectively considered the industry side and concepts covering why, what, who, and how. However, the how was not comprehensive in terms of considering all key business activities such as organization strategies and human capital acquisitions.

The Business Model Innovation could be resulted from developing a conceptual framework which is describing the firm's way of transforming digitally their business model elements by below mentioned constructed map (i) existing strategy to a digital business strategy, (ii) existing customers to digital customers, (iii) existing product offering to a digitally infused product offering, (iv) existing resources to incorporate digital technologies and (v) existing capabilities to digital capabilities (Tonder, 2020) as shown in Figure 3.
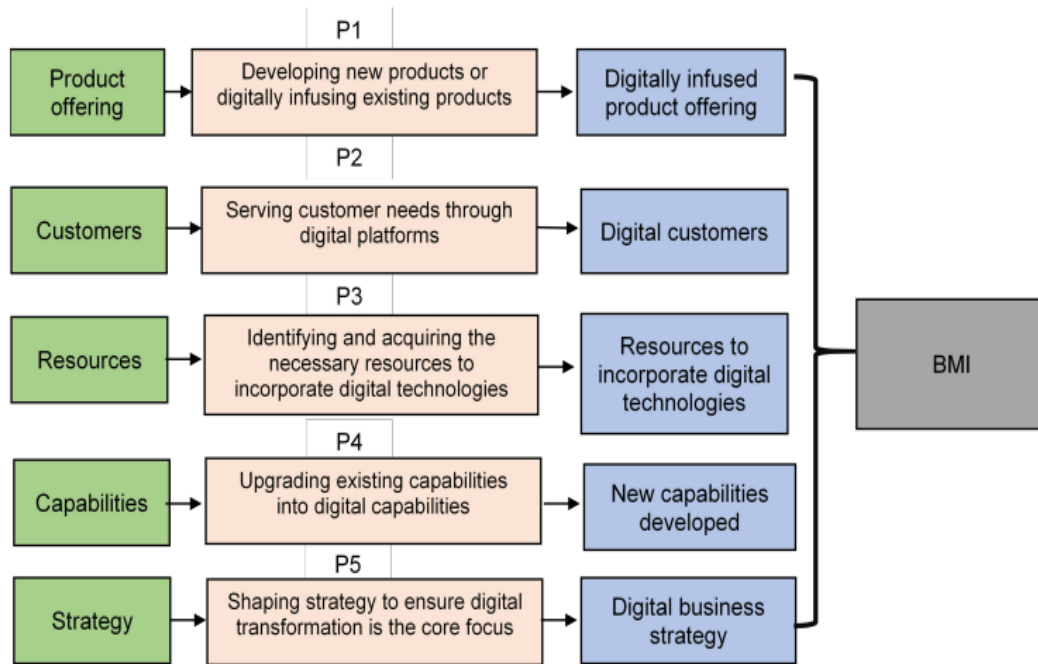
Figure 3: Conceptual framework indicating how to digitally transform elements of the business model (Tonder, 2020)

Tondor (2019), identified the components part of business model innovation and incorporated at a high level the how to include digital technologies into existing business models. However, the framework contribution is at a very high level and does not include the key business activities.

2.7. Digital Transformation Frameworks

VERINA (2019) proposed that digital transformation in the border context evolves around "organizational change, cultural transformation, and moving towards customer-centric approach" and not only the use of IT-based solutions. Therefore, there is a vital need to understand the digital transformation frameworks that include all the above-mentioned dimensions.

MIT (2011) developed a Digital transformation framework that identified three key enterprise areas that need to be transformed digitally which are customer experience, operational processes, and business models. That can be achieved through developing digital capabilities as a base across the three identified areas. Furthermore, MIT's framework identified eight strategic assets for transformation, including brand, products and content, product innovations, sales force, customer knowledge, partner network, point of sales and distribution channels, and culture as illustrated in Figure 4.
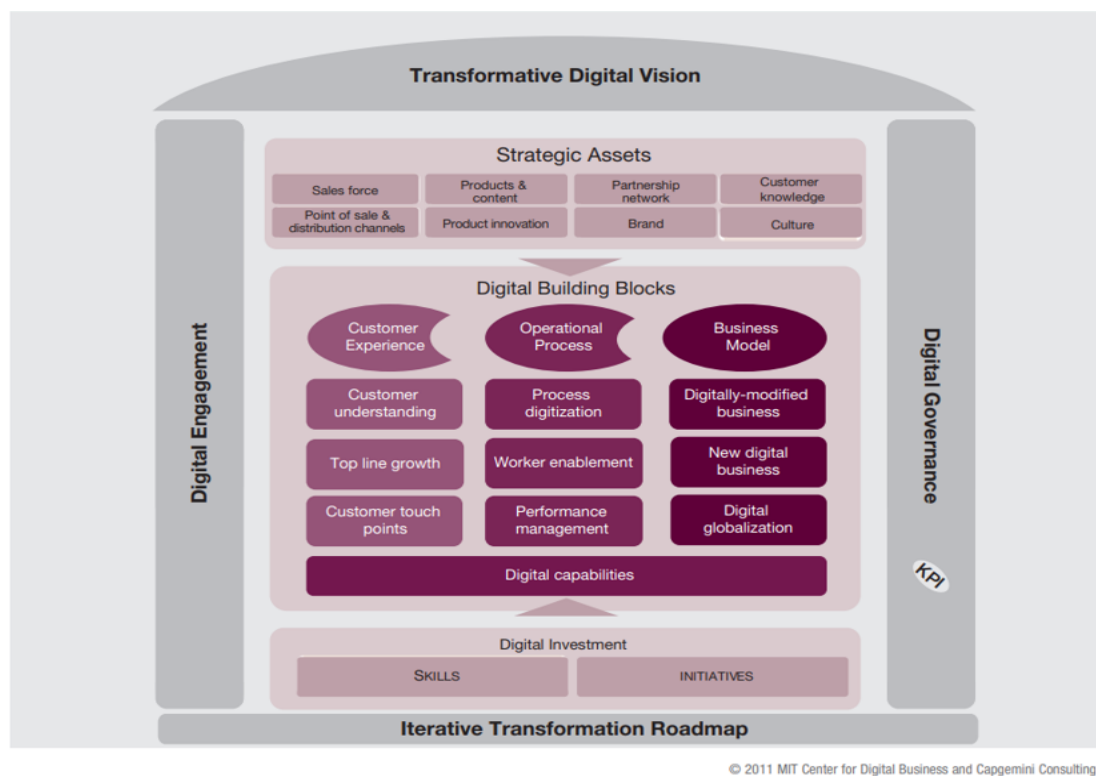
Figure 4: Digital Transformation Framework (MIT, 2011)

Cognizant (2014) claims that the four dimensions of the Digital Transformation Framework are Customer Experience, Product and Services, Process and Systems, and Digitize the Organization as illustrated in Figure 5.
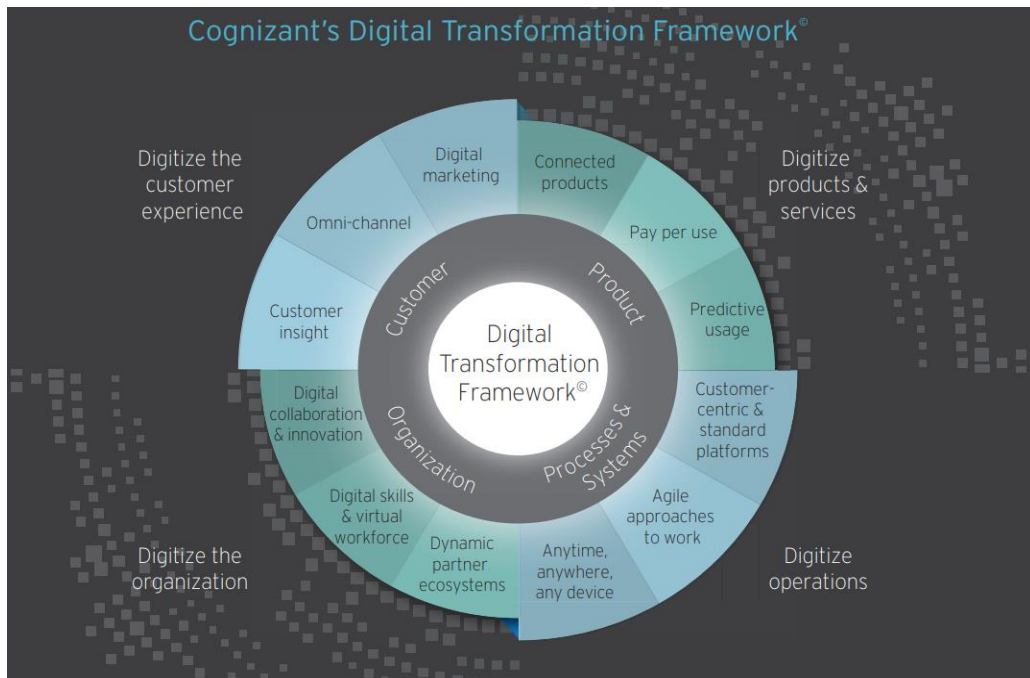
Figure 5: Digital Transformation Framework (Cognizant, 2014)

The core elements of the Digital Transformation Conceptual Framework are Technology, Management, and People as illustrated in Figures 6 and 7 (Verin, 2019).
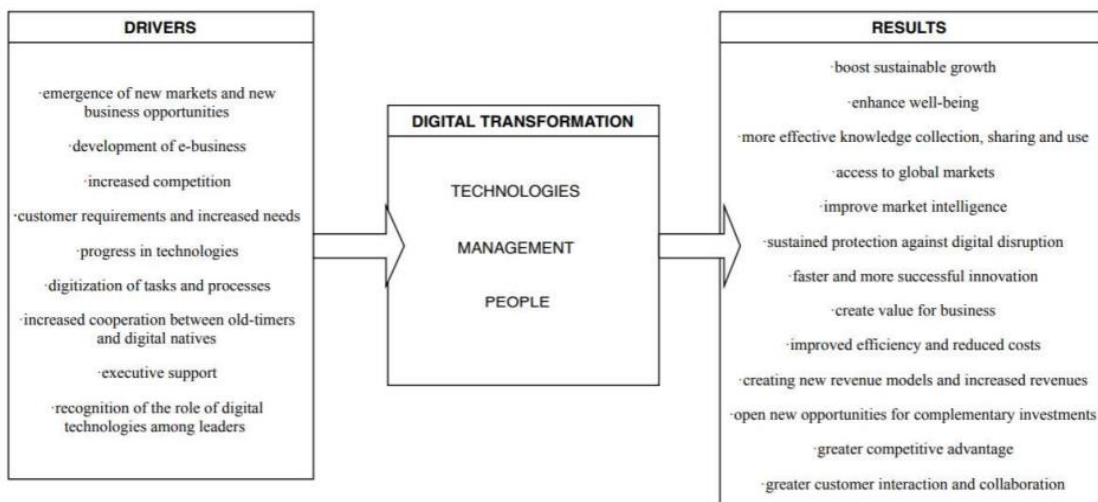
Figure 6: The core elements of the Digital Transformation Conceptual Framework are Technology, Management, and People (VERINA, 2019)

Technologies	Management / Processes	People
– Data – Big data – Cloud – Mobile devices – Social media – Software – Analytics – Embedded devices – Artificial intelligence – The Internet of Things – Cybersecurity – App marketplaces	– Business models – Operating models – Operational processes – Strategies – Business activities – Organizational structure – Organizational culture – Coordination mechanism – Products – New services	– Customers – Employees / workforce / people – Managers – Executives – Talents – Owners – Suppliers – Partners – Stakeholders – Competencies

Figure 7: Categories of the concept of "Digital transformation" and the elements (VERINA, 2019)

Veldhoven, (2019) developed The Digital Transformation Framework which represented three axes business, digital technologies, and society as illustrated in Figure 8.
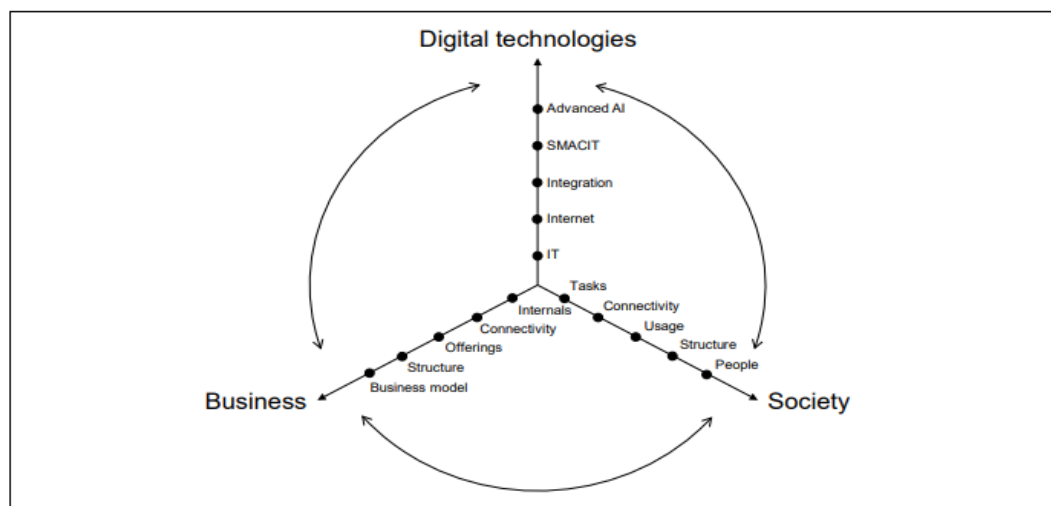
Figure 8: The Digital Transformation Framework (Veldhoven, 2019)

Zaoui (2020) crafted a framework for a Strategic Digital Transformation which includes Digital Strategy, Enablers/Capabilities, and Building Digital Business (Processes,

Products, & services). In addition to two catalyzers adopting ICT Culture and new value proposition innovation as illustrated in Figure 9.
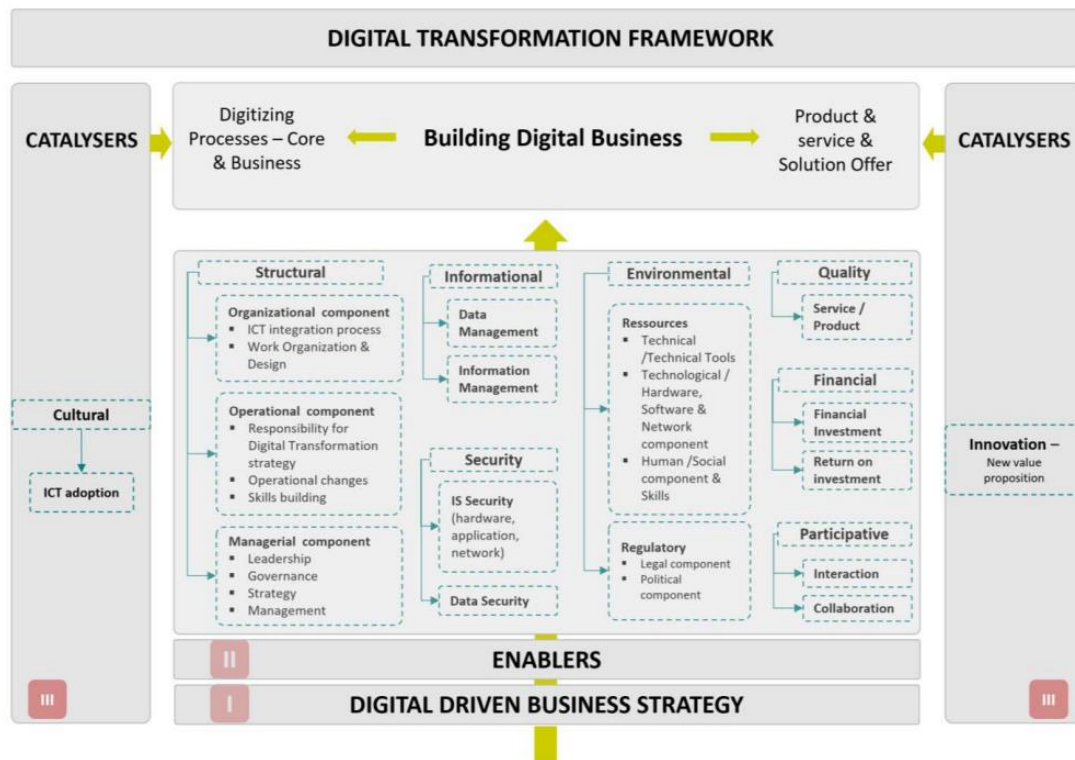
Figure 9: Framework for a strategic digital transformation by (Zaoui, 2020)

All the above frameworks have explored most of the key dimensions and components of building digital transformation frameworks. However, one can argue that they lack addressing how to guide and direct the process towards the end-to-end transformation implementation. Moreover, the frameworks' consideration of the different types of businesses and related aspects were not reflected.

Having the authors of the above framework address the HOW To implement would have enhanced the practical side of the digital transformation process. By introducing the appropriate digital transformation roadmap considering the different business sectors would have reflected the important association between business and

digitalization.

2.8. Business Model Innovation and Digital Transformation Roadmaps

Velu, (2016) classified the scope of innovations related to the business model as evolutionary or revolutionary. Furthermore, multiple different levels of innovation vary from altering a single component and modifying multiple components concurrently including the connections among components of the business model.

The marriage between technology and business considerations based on a common language for the field experts are all required to fulfill the needs of digital transformation concepts such as the Digital Key Elements, Enterprise View, Digital Value Drivers, and Strategic Focus Areas (Blaschke, 2017).

The roadmap for digital transformation is composed of three stages: the evaluation, defining the orientation setting of strategic goals, and finally the implementation (ZAOUI, 2020)

Furthermore, Balakrishnan, (2020) has identified the centric concepts under four dimensions to reorganize a firm's digital transformation which are Organization, Technology, Strategy, and External stakeholders.

The three layers of the Business Model Innovation Roadmap for The Digital Transformation Process of any German SME are **Digital Technologies** (data, automation, customer access, network) as the top layer, then **Business Model** (value proposition, value creation, value delivery, value network, and value capture) the as middle layer, and finally **Resources** (internal and external) as bottom layer (Schaller, 2021) as illustrated in Figure 10.
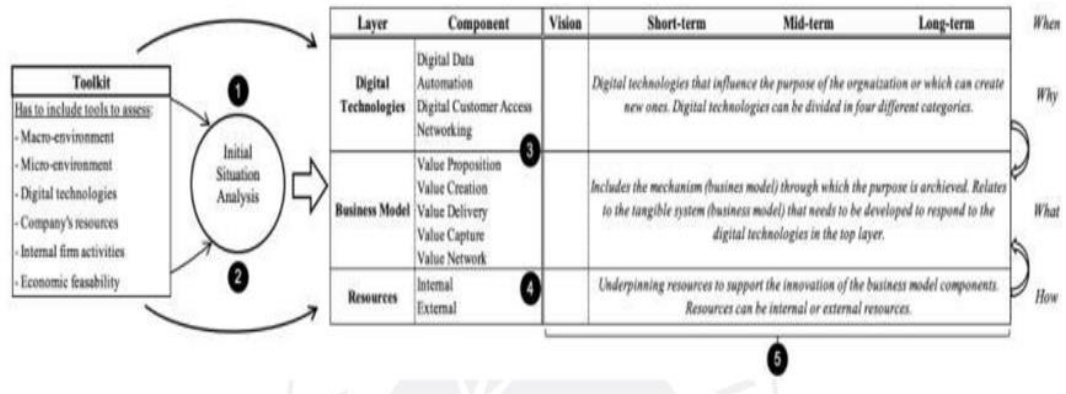
Figure 10: Business Model Innovation Roadmap for The Digital Transformation
Process of any German SME (Schaller, 2021)

The above innovation roadmaps successfully considered the dimensions and industry-
side concepts covering why, what, who, and how. However, the HOW was more
general and not comprehensive in terms of considering the key business activities for
more practicality.

2.9. Digital Transformation Outcomes

Verina (2019) found the anticipated results from digital transformation can lead to:

i. Improvement of business growth by easily reaching a wide range customer base
and serving them with consistent standard and smooth services and information.

ii. Entry to the international market where digital applications can easily be
downloaded and utilized.

iii. Boost market intelligence by digitizing the processes and services such as
automating the Know Your Customer (KYC) process, product selling, and
customer services.

iv. Maintains a defense against digital disruption by utilizing firm digital capabilities to build solutions and uphold continuous development of digital products and services.

v. Faster and more successful innovation whereas having dynamic capabilities of digital services innovations by itself is considered as a sustainable market competitive advantage.

In practice, digital transformation contributes to achieving a new revised business model, better competitive advantage, more customer interaction, and collaboration. Furthermore, innovation generally strengthens competitiveness and improves brand recognition and value. Achieving new partnerships increases turnover, and improves profitability (nibusinessinfo, 2022).

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Background

This study adopted both interview qualitative research methodology and action research methodology. As Aljazeera Finance has planned and initiated the digital transformation program from 2017 to 2024 to accomplish the total digital transformation to achieve business model innovation. For convivence, this study adopted the interview qualitative research method for the first phase of the transformation journey which was conducted in the period between 2017 to mid-2021 that was dedicated to back-office digital transformation. Accordingly, the crafted research interview questions were based on the conducted literature review of previous researches and directed by research objectives for collecting the related data to explore the business areas and key activities of innovation in the first phase of the digital transformation journey. This methodology was very informative and highly contribute to understanding deeply the situation and then representing the target firm's (AJF) business model.

Moreover, in the period between mid-2021 to mid-2022 action research as an academic and practical methodology was chosen for conducting this study because the researcher is part of phase two of this digital transformation program. Considering that the action research design is an iterative and emerging manner, where the outputs of each stage determine the direction of the next step until no further changes are required, so gain knowledge that could be applied and tested in multiple rounds.

3.2. Rational

To serve the purpose of knowing and understanding what and how things happen for the first phase of the transformation journey of Al-Jazeera finance which was conducted

in the period between 2017 to mid-2021, the interview qualitative method was adopted to deeper understand a situation how (process) and why (meaning) things happen (Cooper,2014). Additionally, action research is selected for the second phase to conduct this research in the period between mid-2021 to mid-2022 due to the depth and practice nature of the research context (Cooper, 2014). It is very suitable to link the action research methodology of digital transformation with digital innovation where the association between academic and practical relevance is vital in innovation management (Ritala, 2018). Furthermore, action research is compatible with the "How" research question, it enables the testing of research outcomes and presents the potential informed and appliable results. Additionally, the action research design is iterative and emerging, where the output of each stage is stating the direction for the next step until no further changes are required to the outcomes (Cooper, 2014). Furthermore, it utilizes the gained knowledge in the target environment and tests out the applicability, limitations, challenges, and future research areas.

Nevertheless, action research is generating rich insights and knowledge for both rigorous theory development and change in practice. Such contribution is due to researcher involvement and intervention in the organizational setting which generates rich insights about processes, practices, and people in innovation management (Ollila, 2020)

Recent studies have used action research. For example, Athanasopoulou et al. (2018) in his article utilized and provide recommendations for future business model tooling by action research for understanding business model innovation where Action Design Cycles regarding business model exploration are proposed such as " (a) to start with an initial business model even if the final offering is not clear, (b) to create alternative business models and explore their potentials, and (c) use tools or practices that can

contribute on the decision making regarding BMI". Moreover, Baskerville (1999) recommended that action research can be used when the researcher actively participates in the project, to gain knowledge that could be applied directly, and by doing so it merges theory and action.

3.3. Data Sources

This study was performed through direct interviews with participants (20 interviews) representing the digital ecosystem of the SME Financial Services industry in Qatar. Secondly, attending transformation workshops (12 workshops) within the targeted institution. Thirdly, reviewing the internal and other related documentation (5 documents) concerning policies, procedures, digital business requirements, and business solutions hands-on. Finally, Attended related meetings (20 meetings) of the digital transformation program within the targeted institution.

Following the action research methodology, this study performed three rounds to test the output of each stage, then directed to the next stage until the targeted transformation roadmap is finetuned and achieved.

Therefore, the outcome of the first round has gone for testing second and third rounds with related participants to improve the findings and update the results according to the practical results of current and previously implemented digital transformation projects and planned future digital transformation initiatives.

3.4. Data Sources Utilization

Based on the performed efforts of the conducted literature review of previous research, themes of semi-structured questions were developed. In addition to craft and standardized open-end questions.

The data analysis depends mainly on understanding and judgment of the ideas of obtained answers and views by conducting a content analysis of the collected data. In addition to the new insights that have been raised from the answers to the open-ended questions which represent key added values to the research. Due to the small number of interviewees, it was a smooth mission to utilize themes analysis for free text answers and then group them into a thematic category to end up with clear output and findings from the study.

Sources of details and data were classified into four categories semi-structured interviews, workshops, meetings, and internal documents as demonstrated in the below table:

Table 2: Utilized Data Sources Between the Years 2021 and 2022

Sr	Source of data	Type of details	Use in the analysis
1	Semi-structured, Open-ended questions interviews	20 interviews	Interview internal & external related parties to understand & represents the business model, the expectations of digital transformation, the innovation capabilities, and the type of required changes.
2	Workshops	12 workshops	Understand new digital business model aspects, new activities, and new opportunities for new digital business model dimensions
3	Meetings	20 meetings	How business decisions were taken based on business cases, benefits and returns analysis, and challenges overcome. Then, how the transformed program is going to be managed.

Sr	Source of data	Type of details	Use in the analysis
4	Internal documents	5 documents (Policies, Procedures, Regulations, Business requirements, and hands-on).	Deeply understand the business details and key activities which will be transformed from physical to digital.

3.5. Study Participants

Twenty participants holding expertise in their respective dominos from the targeted firms, front and back-office users, compliance, legal, information technology, and top management, in addition to the firm's digital platform vendors, open finance partners, and customers representatives as detailed in table 3 and (interview questions is a part of Appendix I).

Table 3: Study participants list

Sr	Company	Position	BMI Role
1	AJF	Chief Executive Officer	Head of Steering committee
2	AJF	PMO Manager	AJF DT PMO Manager
3	AJF	Chief Operations Officer	AJF DT Steering Committee Member
4	AJF	Chief Risk Officer	AJF DT Steering Committee Member
5	AJF	Chief Finance Officer	AJF DT Steering Committee Member
6	AJF	Chief Business Officer	AJF DT Steering Committee Member
7	AJF	Compliance Manager	AJF DT Steering Committee Member
8	AJF	IT Manager	AJF DT Manger
9	AJF	Head of Application	AJF DT Team Member
10	AJF	Head of MIS	AJF DT Team Member
11	AJF	IT information security	AJF DT Team Member

Sr	Company	Position	BMI Role
12	AJF	Head of IT infrastructure	AJF DT Team Member
13	KPMG	Information Security Expert	AJF DT Consultant
14	Islamic Bank	Digital Transformation Manager	AJF DT Consultant
15	Islamic Bank	Business Analyst	AJF DT Consultant
16	Multimedia	Digital Transformation Manager	AJF DT Consultant
17	ITS	Customer Engagement Manager	AJF DT Vendor
18	ITS	Mobile App Product Manager	AJF DT Vendor
19	ITS	Mobile App Project Manager	AJF DT Vendor
20	ITLinx	General Manager	AJF DT Vendor

CHAPTER 4: DATA ANALYSIS AND REPRESENTATION

4.1. Business Model of Al-Jazeera Finance in Qatar

The business model of the firm under study (Al-Jazeera Finance in Qatar) has been represented for SME financing services incorporating the business model dimensions and components as illustrated in (Figure 1), whereas the targeted digital transformation is mapped to the business model innovation.

In a broad view and from a convenience perspective, the proposed business model has been divided into two main parts, the front office, and the back office. The front-office dimensions are firstly Targeting & Attracting, secondly, Engaging & Onboarding, and thirdly, Sales and Services. The back-office dimensions are first, Operations & Analytics, secondly, Human Capital & Leadership, and thirdly, Performance & Decisions. Each dimension includes at least five components/elements (sub-dimensions) as illustrated in (Figure 11).
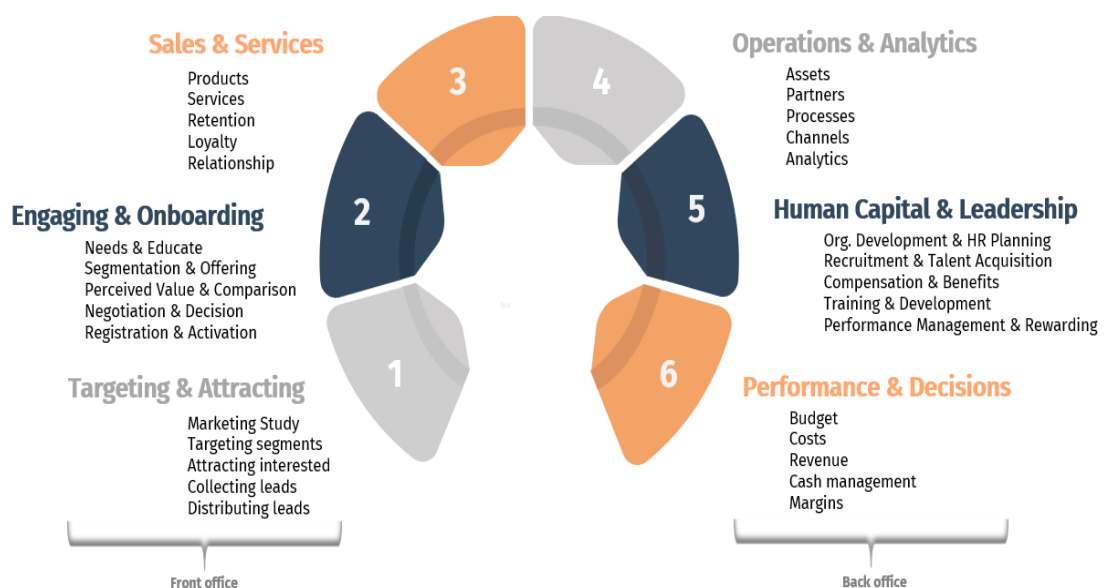
Figure 11: The Business Model of Al-Jazeera Finance in Qatar

4.2. Key Activities of the Physical Business Model

The purpose of this section is to demonstrate the key activities under each business model components which by turn represent the real elements of digital transformation where each physical activity is supposed to be replaced with digital activity to perform the same functionality as illustrated in the following sections.

1. Targeting and Attracting

This business dimension is the first part of the value proposition that relates to conducting the market study to understand the targeted customer base distribution, then segment and attract them. Hence after, collecting leads and distributing them between salesforces. The key activities can be classified under each business component as below:

- **Marketing study:** Gathering market details from traditional manual printed sources relies on published articles, Government Statistics, Questioners, Scientific Published Research papers, and Human performance analysis.

- **Targeting segments:** Advertising by Newspapers, TV, Radio, Brochures, and Banners.

- **Attracting interested:** Word of Mouth, Ads. Design, Attractive Discounts and Offers, Partners and Suppliers' Recommendations, Seminars, Conferences, and Events.

- **Collecting leads:** Walk-ins, Calls, Referrals, and Demo Requests. The mentioned collected leads are then Manually stored in Excel format and /or Database.

- **Distributing leads:** Manual Distribution.

2. Engaging and Onboarding

This business dimension is the second part of the value proposition is to carry out the study of customers' needs and then educate them before segmentation and offering suitable products along with applicable comparisons for best the perceived value. After that, negotiate the customer's financial terms to enable him to take the desired decision. Accordingly, the customer can be formally registered to the system by the concerned employee. The key activities can be classified under each business component as below:

- **Needs and Educate:** Direct Meetings, Phone Calls, and Direct Demos.

- **Segmentation and Offering:** Manual Customer Segmentation and Manual Offering.

- **Perceived Value and Comparison:** Manual Comparisons with competitors' available data.

- **Negotiation and Decision:** Phone Call and Direct Visit.

- **Registration and Activation:** Manual Registration.

3. Sales and Services (Core Offering)

This business dimension is the third part of the value proposition and is concerned with the core offering to the customers, including the products and services. It also considers the retention and loyalty relationship during the engagement journey. The key activities can be classified under each business component as below:

- **Product Applications:** Physical Application and Contract., Fees and advance Cash Payments.

- **Services Applications:** Physical Application, and payment of cash payment of Fees.

- **Retention:** Word of mouth.

- **Loyalty:** Physical Offering and Rewarding.
- **Relationship:** Personal & Manual Relationship Management.

4. Operations & Analytics

This business dimension is related to value creation (What) which includes Acquiring and utilizing the assets, dealing with partners for the complementary services and supplies, Operating the defined firm's different processes, Utilizing the proper channels, and finally, Conducting the required analytics which enables for taking the informed decisions. The key activities can be classified under each business component as below:

- **Assets:** Buildings, Furniture, IT Infrastructure, and Capital
- **Processes:** Manual Application Processing, Cash Payments, Manual Bank Transfers, Manual Sign Off (contracts, …etc), and Manual Collaterals Pledge & Release.
- **Partners:** Manual Bank Transfers, Cheque Clearing, Manual Credit Bureaus Report, Manual Insurance, Manual AML inquiry, and point of sale POS.
- **Channels:** Call Center and Branches.
- **Analytics:** for Existing Data and whatever data provided by Customers

5. Human Capital & Leadership

This business dimension is considered value creation (who) and includes multiple key components such as organization development and human resources planning, then talent acquisition and recruitment, offering competitive compensation and benefits, keep providing the required training and development, and finally conducting performance appraisal and rewarding. The key activities can be classified under each business component as below:

- **Organizational Development & HR Planning:** Professional Qualifications and Customer Support Expertise.

- **Recruitment & Talent Acquisition:** HR and Recruitment Agencies

- **Compensation & Benefits:** Maximum Benefits and Attractive Packages

- **Training & Development:** Required Job Training, On the Job Training, User Manuals, Reports, and Knowledge Sharing documents

- **Performance Management & Rewarding:** Cash Incentives (Periodically), and Performance Schemes.

6. Performance & Decisions

This business dimension is involved in value capture (How) and includes multiple components such as budgeting, costs, revenue, margins, and cash management. The key activities can be classified under each business component as below:

- **Budget:** Estimations (Internally & Externally).

- **Costs:** Direct and Indirect costs.

- **Revenue:** Net Profit Margin, Fees, and Commissions.

- **Margins:** Cost-Based Model.

- **Cash management:** Equity and Borrow from Lending Institutions.

4.3. Key Activities of the Digital Business Model

The purpose of this section is to demonstrate the key activities under each business model components which by turn represent the real elements of digital transformation where each digital activity is supposed to replace physical activity to perform the same functionality as illustrated in the following sections.

1. Targeting and Attracting

This business dimension is the first part of the value proposition that relates to conducting the market study to understand the targeted customer base distribution, then segment and attract them. Hence after, collecting leads and distributing them between salesforces. The key activities can be classified under each business component as below:

- **Marketing Study:** Social Media Data, Formal Websites, and Platforms, Digital Questioners, Digitally Published Researchers, and Digital Analyses Tools & Techniques.

- **Targeting Segments:** SMS, Emails, Social & Digital Presence (Marketing Platforms), Supplier's Digital Sites, and Digital Affiliate Networks.

- **Attracting Interested:** Digital Advertisement Design, Digital Discounts, Digital Offers, Digital Partners Recommendations, Search Engine Optimization (SEO) which works as Website Ranking, Apps Ratings and Reviews, Social Media Feedback, and Digital Seminars and Events.

- **Collecting Leads:** Sign Up to Receive Content, Web and Contact Form, Web Demo Requests, and Customer Relationship Management (CRM) System Database updates.

- **Distributing Leads:** Customer Relationship Management (CRM) System Distribution.

2. Engaging and Onboarding

This business dimension is the second part of the value proposition is to carry out the study of customers' needs and then educate them before segmentation and offering

suitable products along with applicable comparisons for best the perceived value. After that, negotiate the customer's financial terms to enable him to take the desired decision. Accordingly, the customer can be formally registered to the system electronically. The key activities can be classified under each business component as below:

- **Needs & Educate:** Virtual Visits, Chatbots/WhatsApp, Online/Video Demo (Interactive Video).

- **Segmentation & Offering:** Digital Customer Segmentation, Digital Offering, and Bundling (Funnel).

- **Perceived Value & Comparison:** Digital Comparisons with similar market offerings.

- **Negotiation & Decision:** Chatbot, WhatsApp, AI Platform, and Virtual Visits.

- **Registration & Activation:** Electronic Identification Verification (eIDV) and Registration, then Digital Activation.

3. **Sales and Services (Core Offering)**

This business dimension is the third part of the value proposition and is concerned with the core offering to the customers, including the products and services. It also considers the retention and loyalty relationship during the engagement journey. The key activities can be classified under each business component as below:

- **Product Applications:** Digital Application, Digital Contracting, Digital Fees, and Advance Payments.

- **Services Applications:** Digital Application and Digital Fees Payments.

- **Retention:** Digital Offering and Rewarding.

- **Loyalty:** Social Media Comments, Digital Referrals, and Application Rating and Recommendations.

- **Relationship:** Customer Relationship Management (CRM) system, Artificial Intelligence (AI) Chatbot, Interactive Voice.

4. Operations & Analytics

This business dimension is involved in value creation (What) which includes acquiring and utilizing the assets, dealing with partners for having the complementary services and supplies, operating in the different processes, utilizing the proper channels, and finally, conducting the required analytics which enables for taking the informed decisions. The key activities can be clarified under each business component as below:

- **Assets:** Acquiring and Utilizing the Digital Platform and Capital.

- **Partners:** Digital Bank Transfers & Electronic Chq. Clearing (ECC), Digital Credit Bureaus Reports, Digital Insurance, Digital Anti Money Laundry (AML) Verification, and Digital Payments through Payment Gateways.

- **Processes:** Digital Application Processing for both products and services, Digital Payments, Online Bank Transfers, Digital On-Time Notifications and Receipts, Digital Signoffs (Contracts, Guarantees, …etc), and Digital Collaterals Pledge & Release.

- **Channels:** Serving the customer through Mobile Applications and Online Portals/Sites.

- **Analytics:** Self-Generated, Free Available, Acquired Data, Existing Data, Customer Provided, and Decision Support System (DSS).

5. Human Capital & Leadership

This business dimension is considered value creation (who) and includes multiple key components such as organization development and Human Resource (HR) planning, then talent acquisition and recruitment, offering competitive compensation and

benefits, keep providing the required training and development, and finally conducting performance appraisal and rewarding. The key activities can be classified under each business component as below:

- **Organization Development & HR Planning:** Professional Qualifications, IT Experts, and Fintech Expertise.

- **Recruitment & Talent Acquisition:** Professional social media Portals.

- **Compensation & Benefits:** offering Low-cost job Benefits and minimal Packages.

- **Training & Development:** External Training, Personal Development Training, Online communities, and Analytics capabilities

- **Performance Management & Rewarding:** High Cash Incentives and Cash Rewards

6. **Performance & Decisions**

This business dimension is involved in value capture (How) and includes multiple components such as budgeting, costs, revenue, margins, and cash management. The key activities can be classified under each business component as below:

- **Budget:** Digital Data Gathering, Analytics, and Artificial Intelligence (AI) estimation.

- **Costs:** Low Direct and Indirect Costs.

- **Revenue:** Net Profit Margin, Fees, and Commissions.

- **Cash management:** Equity and Borrow from Lending Institutions

- **Margins:** Competition-Based Model

4.4. The Business Model of Al-Jazeera Finance Including Business Processes

Moreover, for more comprehension of the SME financial industry process types, the business processes sub-dimension under Operations & Analytics dimensions has been represented into eight business areas as illustrated in (Figure 12).

The eight business areas that need to be included to comprehend all business aspects are described below:

i. **Strategy and Business:** strategy represents the firm's vision and initiatives for at least five years, whereas the business represents the type of current and future businesses such as retail financing, SME financing, and investments.

ii. **Compliance and Governance:** Compliance represents the firm's commitment to all regulations and instructions of both regulators and internal policies, whereas governance represents the establishment and the obligation to the approval matrixes for all business decisions such as committees of crediting, purchasing, policies and procedures, human resources, and information technology.

iii. **Security and Audit:** corporate security includes the physical protection for employees and all assets such as guaranties, checks, contracts, and data, whereas audit is a responsibility to measure the compliance to policies and procedures and to discover and follow up on any reported weak areas either in policy or its execution.

iv. **Risk and Legal:** risk processes are classified into operational risks which involved all firm procedures, credit risk takes care of financial analysis, evaluation, and credit recommendations, and administrational risks take care of collecting and protecting all financing data, documents, and approvals, whereas

legal processes are responsible for firm's legal activities with all related parties such as courts, police, contracts …etc.

v. **Review and Quality:** the review responsibility is mainly to validate all financing steps before the deal outcomes are delivered to the customer such as vehicle or cash whereas quality policies and procedures are responsible to put quality assurance standards and make sure that they are committed.

vi. **Innovation and Change Management**: The innovation process is considered part of business model innovation which includes digital transformations and process enhancements to any business component such as attracting the customer via social media and delivering the services digitally. However, change management plays a critical role in implementing business innovations, including changing the internal culture and customer awareness and obtaining management approval and support.

vii. **Products Development and Delivery Channels:** product development is required to satisfy customer needs and satisfaction, which may achieve via offering new products and services in addition to   improving service processes, and financing terms, whereas delivery channels includes introducing new communication channels with customers such as mobile applications, portals, and call centers.

viii. **Supply Chain & Inventory Management**: supply chain represents mainly the goods and services obtained generally by long-term agreements with product providers such as the agents of vehicles and machinery, whereas inventory management represents the capabilities of the firm's systems and physical stores to guarantee the best performance in delivering products and services to the

customers.

However, these process types will be represented only at this stage to understand the industry process precisely and will not be taken forward further for consistency purposes.
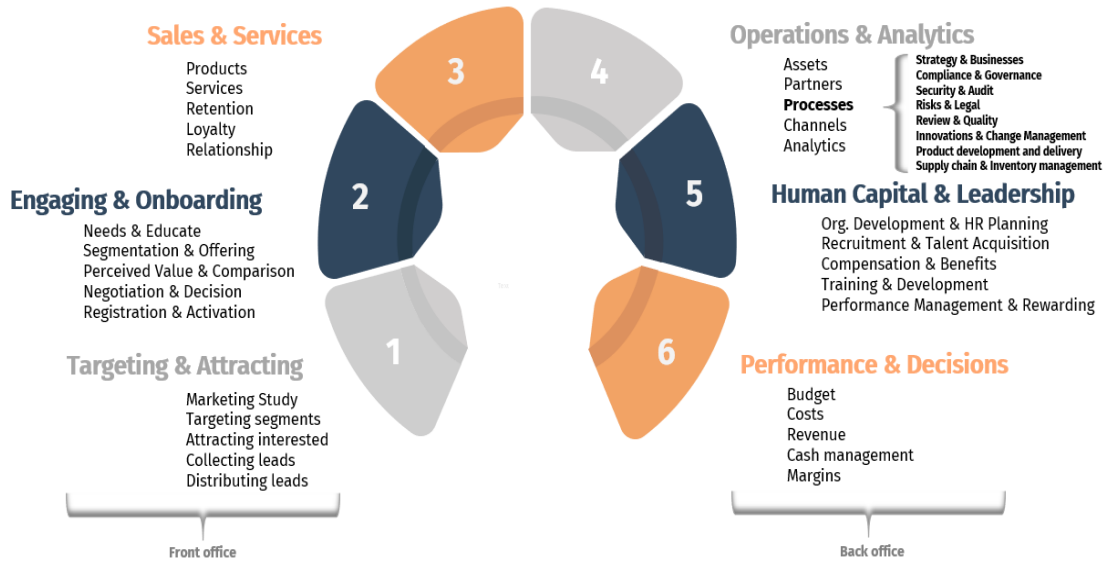
Figure 12: The Business Model of Al-Jazeera Finance Including Business Processes

CHAPTER 5: FINDING AND DISCUSSION

5.1. The Roadmap for the Transformation of the Al-Jazeera Finance Business Model

An additional found advantage of the mentioned above business model is that demonstrates the business values and enables navigating between them during the innovation journey. Furthermore, if the adopted innovation strategy is to achieve continuous innovation for achieving a sustainable competitive advantage, it is suggested for firms identify, establish, and cultivate their dynamic capabilities and adopt the most appropriate dynamic innovation framework and/or methodology. This has been shown under Human Capital & Leadership dimension.

Accordingly, to empower designing a comprehensive roadmap for evolving transformation of business model from physical to digital by utilizing the above business model representation, the proposed methodology has included the following to become a digital transformation roadmap,

 i.   The business values include value proposition (Why), Value Creation (What & Who), and value capture (How & When).

 ii.   The key innovation enablers added to the model under the operation and analytics dimension such as platform, open finance, and decision support systems (DDs).

 iii. Identifying the business elements related to building the firm's dynamic capabilities under Human Capital and Leadership dimension so human capabilities can be identified, established, and cultivated as shown in Figure 13.

 iv.   Linked to the proposed roadmap the key activities map of the physical business model to the digital business model for each component as described in section

4.5 and illustrated in Figure 14. For Example, the component channels under the operations and analytics dimension, the call center and branches activities were mapped to mobile and online digital services activities.
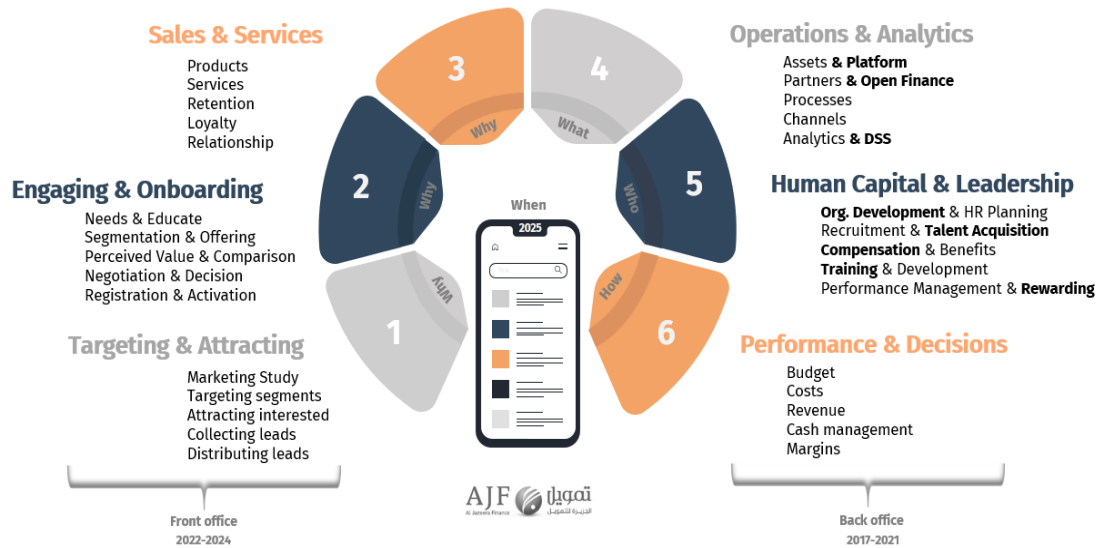
Figure 13: The Roadmap for the Evolving Transformation of the Al-Jazeera Finance Business Model

Ultimately, the outcome of integrating and optimizing the above-mentioned enablers with the dynamic capabilities will contribute toward a sustainable competitive advantage as part of the firm's strategy.

5.2. Mapping Key Activities of Physical Model to Digital Model

Moving forward, Figure 14. Identifies the key activities under each business model element of each dimension in both physical and digital models. For example, the targeting Segment elements Under the Targeting and attracting dimension in the physical model using Newspapers, TV, Radio, Broachers, and banners. Whereas the digital model utilizes, SMS, Emails, Social and digital presence, Supplier's digital sites, and digital affiliate networks.

Table 1

Dimension	Sub-dimension	Physical Model	Digital Model
Targeting & Attracting	Marketing Study (Data gathering & Analysis)	Printed Research details; Printed Government statistics; Printed questioners; Printed published researchers; Human analysis	Social media; Formal websites and platforms; Digital questioners; Digital published researchers; Digital analyses tools & techniques
	Targeting Segments	Newspapers; TV; Radio; Brochures; Banners	SMS; Emails; Social & Digital Presence (marketing platforms); Suppliers Digital Sites, Digital Affiliate Network
	Attracting Interested	Word of Mouth; Ads. design; Discounts & Offers; Partners Recommendations; Seminars and events	Digital Ads. design; Digital Discounts & Offers; Digital Partners Recommendations; SEO (Search Engine Optimization) (website ranking); App Ratings, Reviews, Social Media Feedbacks; Digital Seminar and events
	Collecting leads	Walk-in; Calls, referrals; Demo Requests; xls/Database update	Sign up to receive content; Web & contact form; Web Demo Requests; CRM/Database update
	Distributing Leads	Manual distribution	CRM Distribution
Engaging & Onboarding	Needs & Educate	Direct Meeting; Phone call; Direct Demo	Virtual Visits; Chatbots/WhatsApp; Online/Video Demo (interactive video)
	Segmentation & Offering	Manual Customer Segmentation; Manual Offering	Digital Customer Segmentation; Digital Offering and bundling (funnel)
	Comparison & Perceived Value	Manual comparisons	Digital Comparisons
	Negotiation & Decision	Phone call; Direct visit	Chatbot, WhatsApp, AI Platform; Virtual Visits
	Registration & Activation	Manual Registration	eIDV & Registration & Digital Activation
Sales & Services	Product Applications	Physical Application; Physical Contract; Fees & Advance Cash Payments	Digital Application; Digital Contract; Digital Fees & Advance Payments
	Services Applications	Physical Application; Fees Cash Payments	Digital Application; Digital Fees Payments
	Loyalty (Advocacy & Referral)	Word of mouth	Social Media comments & Digital Referral; Application Rating & Recommendations
	Retention (Grow & Reward)	Physical Offering & Rewarding	Digital Offering & Rewarding
	Relationship	Personal & Manual RM	CRM system, AI chatbot, interactive voice

Table 2

| Dimension	Sub-dimension	Physical Model	Digital Model
Operations & Analytics	Assets	Buildings & Furniture & IT Infrastructure; Capital	Platform; Capital
	Processes	Manual Application processing; Cash Payments; Manual Bank Transfers; Manual sign off (contracts, ...etc); Manual Collaterals Pledge & Release	Digital Application processing; Digital Payments; Online Bank Transfers; Digital on-Time Notifications & Receipts; Digital sign-offs (contracts, ...etc); Digital Collaterals Pledge & Release
	Partners	Manual Bank Transfers & CC; Manual Credit Bureaus Report; Manual Insurance; Manual AML inquiry; POS	Digital Bank Transfers, ECC; Digital Credit Bureaus; Digital Insurance; Digital AML; Payments Gateways
	Channels	Call Center; Branches	Mobile; Online
	Analytics	Existing Data; Customer Provided	Self-Generated, Free Available, Acquired data, Existing Data, Customer Provided, DSS
Human Capital & Leadership	Org. Development & HR Planning	Professional Qualifications; Customer Support expertise	Professional Qualifications; IT experts, Fintech expertise
	Recruitment & Talent Acquisition	Recruitment agencies	Professional social media
	Training & Development	Required Job Training; On The Job Training; User Manuals & Reports; Knowledge Sharing documents	External Training; Personal Development Training; Online communities; Analytics capabilities
	Compensation & Benefits	High cost; Maximum benefits packages	Low cost; Minimal benefits packages
	Performance Mang. & Rewarding	Cash Incentives (Periodically); Benefits schemes	High cash incentives; Cash Rewards
Performance & Decisions	Budget	Estimations (Internally & Externally)	Data gathering, Analytics, & AI
	Cost	Direct cost; Indirect cost	Low Direct Cost; Low Indirect Cost
	Revenue	Net Profit Margin; Fees; Commissions	Net Profit Margin; Fees; Commissions
	Margin	Cost-based model	Competition-based model
	Cash Management	Equity; Borrow from lending institutions	Equity; Borrow from lending institutions

Figure 14: Key Activities Map of Physical Business Model vs Digital Business Model

5.3. Hybrid Business Model

Although a fully digitalized model is feasible, the SME financing services sector in the market of Qatar still requires the **hybrid** business model to have an effective and successful business. Consequently, business needs should redirect the transformation target to a hybrid business model instead of a fully digital business model. To elaborate more, personal financing for instance needs to be fully digitalized. however, SME financing needs human intervention physical visits for assets and process evaluation and qualifications as per credit risk internal policies and/or regulations. Accordingly, many activities are required to be maintained from the physical business model hand in hand with the new activities of a digital business model (as illustrated in Figure 15 the hybrid activities).

Sub-dimension	Physical Model	Digital Model
Marketing Study (Data gathering & Analysis)	Printed Government statistics Printed questioners Human analysis	Social media Formal websites and platforms Digital questioners Digital published researchers Digital analyses tools & techniques
Targeting Segments	Newspapers Brochures Banners	SMS Emails Social & Digital Presence (marketing platforms) Suppliers Digital Sites, Digital Affiliate Network
Attracting Interested	Word of Mouth Seminars and events	Digital Ads. design Digital Discounts & Offers Digital Partners Recommendations SEO (Search Engine Optimization) (website ranking) App Ratings, Reviews, Social Media Feedbacks Digital Seminar and events
Collecting leads	Walk-in Calls, referrals	Sign up to receive content Web & contact form Web Demo Requests CRM/Database update
Distributing Leads	Manual distribution	CRM Distribution
Needs & Educate	Direct Meeting Phone call Direct Demo	Virtual Visits Chatbots/WhatsApp Online/Video Demo (interactive video)
Segmentation & Offering	Manual Customer Segmentation Manual Offering	Digital Customer Segmentation Digital Offering and bundling (funnel)
Comparison & Perceived Value	Manual comparisons	Digital Comparisons
Negotiation & Decision	Phone call Direct visit	Chatbot, WhatsApp, AI Platform Virtual Visits
Registration & Activation		eIDV & Registration & Digital Activation
Product Applications		Digital Application Digital Contract Digital Fees & Advance Payments
Services Applications		Digital Application Digital Fees Payments
Loyalty (Advocacy & Referral)	Word of mouth	Social Media comments & Digital Referral Application Rating & Recommendations
Retention (Grow & Reward)	Physical Offering & Rewarding	Digital Offering & Rewarding
Relationship	Personal & Manual RM	CRM system, AI chatbot, interactive voice

Dimension: Targeting & Attracting; Engaging & Onboarding; Sales & Services

| Dimension	Sub-dimension	Physical Model	Digital Model
Operations & Analytics	Assets	Buildings & Furniture & IT Infrastructure Capital	Platform Capital
	Processes	Manual Bank Transfers Manual sign off (contracts, ...etc) Manual Collaterals Pledge & Release	Digital Application processing Digital Payments Online Bank Transfers Digital on-Time Notifications & Receipts Digital sign-offs (contracts, ...etc) Digital Collaterals Pledge & Release
	Partners	Manual Bank Transfers & CC POS	Digital Bank Transfers, ECC Digital Credit Bureaus Digital Insurance Digital AML Payments Gateways
	Channels	Call Center Branches	Mobile Online
	Analytics		Self-Generated, Free Available, Acquired data, Existing Data, Customer Provided, DSS
Human Capital & Leadership	Org. Development & HR Planning		Professional Qualifications IT experts, Fintech expertise
	Recruitment & Talent Acquisition	Recruitment agencies	Professional social media
	Training & Development	Required Job Training On Job Training User Manuals & Reports Knowledge Sharing documents	External Training Personal Development Training Online communities Analytics capabilities
	Compensation & Benefits		Low cost Minimal benefits packages
	Performance Mang. & Rewarding	Cash Incentives (Periodically) Benefits schemes	High cash incentives Cash Rewards
Performance & Decisions	Budget	Estimations (Internally & Externally)	Data gathering, Analytics, & AI
	Cost		Low Direct Cost Low Indirect Cost
	Revenue		Net Profit Margin Fees Commissions
	Margin		Competition-based model
	Cash Management		Equity Borrow from lending institutions

Figure 15: The Key Activities of the Hybrid Business Model

For further elaboration about the hybrid business model and the key activities under each business model components where in some cases digital activity is recommended to be companied with physical activity to perform an equivalent functionality, for instance, call center and branches from physical system need to continue providing the services hand by hand with mobile and online digital services to manage different business situations such as:

i. Unfamiliarity with digital services by some customers,

ii. Issues or complications of the digital platform's process that mandates uploading a huge number of required documents,

iii. Inability to utilize some digital functionalities or features due to the approvals

delay of digital solutions by regulators and/or legislation parties such as digital signoffs.

iv.   To obtain deep details about SME business requested financing which in turn contributes to making correct financing decisions through utilizing the key resources and expertise such as customer relationship managers and credit analysts.

Above mentioned benefits of the hybrid business model direct the SME financing services toward achieving business goals in terms of customer satisfaction, minimizing risks, and making the right decisions.

5.4. Organizational Capabilities

Based on the digital maturity levels of organizations' capabilities, customer experience, and ecosystem, the transformation program of the business model for SME financing services could take a long-period journey to be achieved comprehensively. However, short, med, and long-term milestones need to be specified and implemented during the transformation journey.

The efficiency and accuracy of a digital transformation program depend on Organization's capabilities which can be classified into technical, human, process, and financial. The digital transformation program for Al-Jazeera Finance was planned for seven years, the first four years for the back office included infrastructure, internal systems, culture, policies and procedures, and human capabilities. The latter three years were planned for digitizing the front office including the digital platform and custom applications such as the mobile application and internet portal.

Organizational **capabilities** of human capital, innovation, and change management are

crucial contributors to effective and efficient business model transformation. However, the sponsorship of transformation programs by the firm's **leadership** is a key success factor for the achievement of business model transformation. This study asserted that leadership contribution is vital in many key aspects such as budget approvals, culture change, time commitment, and talent acquisitions.

5.5. Challenges

Challenges for successful transformation can be divided into internal and external according to the source of the challenge and ability to control. The identified dimensions of internal challenges in this study are culture, leadership, investment return, capabilities, cost, and service availability. On the other hand, the dimensions of the external challenges are legalities, regulations, customer experiences, market competition, technology, and vendors' capabilities.

5.5.1. External challenges

i. **Legislations** constraints where certain key documents still need to be physically signed such as financing contracts and guaranties to be considered and accepted by government agencies such as courts. As one important milestone of the transformation program, Al-Jazeera finance has automated many of the activities and still waiting for related government agencies to approve some key digital solutions such as digital signatures which are going to be utilized for the digital financing contracts signoffs.

ii. **Regulations** restrict some processes such as the mandatory requirements of face-to-face meetings and physical signatures such as the Know Your Customer (KYC) process. Al-Jazeera finance has implemented an advanced solution that enables utilizing trusted digital technologies based on best practices that have been

authorized by the regulator (Central Bank of Qatar).

iii. **Customer experience** as mentioned previously improved in many aspects due to market trends and the impact of coved 19 pandemic. However, scanning, classifying, and uploading bulk of related papers to requested products or services still require training, familiarization, and support. As the first phase, Al-Jazeera finance initially launched retail financing and services under the category of (salary guarantees) to build the customer experience and enhance the internal culture with the firm's digital services before it moves to other products including such as SME financing.

iv. **Digital competition** in the financial sector is booming where continuous improvement in the introduced and enhanced digital services is compulsory. Al-Jazeera finance has benefited from the launched digital services by competitors and managed to obtain the most appropriate solutions, in terms of technology, cost, time, and duration. For instance, utilization of an open financing capability such as insurance, mortgage pledge and release, payment gateways, and ID card verification. In contemporary financing business, the above is considered a vital factor for a sustainable competitive advantage and protection against disruptions.

v. **Digital Technologies** such as cyber security, cloud hosting, different platforms, and multiple integrations and operating systems represent a practical challenge in many aspects such as cost, time to establish, stability, and perfection. Al-Jazeera finance has utilized digital transformation in a relaxed approach i.e distribution of the planned budget over a period of seven years to build and keep enhancing Digital Technologies, capabilities, and competencies s in a steady and gradual progression manner.

vi. **Vendor Capabilities** related to the different digital specializations represent a key challenge because some advanced products or services either to be locally unavailable or unaffordable due to high cost and resource limitations. Though Al-Jazeera finance has signed with the best suppliers in the market, yet those suppliers tend to lose their qualified resources easily which in turn impacts Al-Jazeera in keeping the required quality of service.

5.5.2. Internal Challenges

i. **Moving to digital Culture:** familiarization with different systems and digital communications is needed across the firms and for decision-making. Which has time and effort implications. To face this challenge, Al-Jazeera finance started the digital transformation internally with back-office processes and applications for around three years which resulted in experiencing smooth digital interactions with customers

ii. **Leadership and top management support** are having a crucial contribution to overcoming most challenges and catching any opportunity whenever available. For example, hiring capable teams, acquiring systems, and changing policies and procedures. This study concluded that the main expected and required contributions toward digital transformation programs from the firm's leadership are budget approvals, culture change, time commitment, and talent acquisitions. Al-Jazeera finance formed a digital strategy committee led by the CEO and has planned a weekly meeting for morning and direction. One of the major roles of the committee was to obtain the board of directors' approval and support of the digital strategy budget, scope, and time.

iii. **Digitalization investment** normally has Low investment returns in the short term.

That represents a key challenge because digital services are expected to achieve a reasonable return in the mid and long term. Al-Jazeera Finance managed to obtain, the approvals for the digital transformation program based on a business survival strategy to overcome the risk of nonexistence in the market and to achieve sustained protection against digital disruption and industry competition.

iv. **High anticipated cost:** multiple direct and indirect (unseen) costs related to building the internal capabilities before moving to develop the customer front office system. For instance, Information Security is one major source of huge costs that need to be considered carefully. Moreover, keeping the momentum of satisfying the customer needs and expectation are another source of continuous cost raiser. The selected solution to face this challenge in Al-Jazeera Finance is to distribute the cost over the digital transformation period which is around seven years.

v. **Building a firm's capabilities** is another key challenge. These capabilities include Human Capital, Process, Systems, and Acquiring Data continuously. Furthermore, these capabilities need to be identified, acquired, cultivated and retained to achieve the targeted benefits and expectations. In many cases, Al-Jazeera Finances depended on vendor capabilities to cover their limitations and shortage of qualified resources by having professional services or outsourcing in addition to hiring qualified personnel and providing proper training including knowledge sharing and transfer.

vi. **Service availability** and commitments to customer service level agreements represent another challenge because Financing decisions for the SME industry are based on human actions, accordingly, utilizing robotics for taking decisions as a replacement for human-based decisions is not yet feasible. This challenge was

partially resolved through an automated process for many aspects of the business such as validating financing conditions. Nevertheless, human intervention is still required in many cases precisely SME financing processes.

CHAPTER 6: CONCLUSION AND IMPLICATION

6.1. Concluding Remarks

This study aims to craft a comprehensive roadmap for transforming a physical business model into a digital business model for SMEs of financial services, enabling an effective and efficient transformation. The aim has been accomplished by achieving the key defined objectives detailed in section 1.4.

This study adopted the qualitative research methodology then accompanied by action research methodology due to the practice context of the research that enables testing the research results. This study was performed through direct interviews with participants (20 interviews) representing the digital ecosystem of the SME Financial Services industry in Qatar. Secondly, attending transformation workshops (12 workshops) within the targeted institution. Thirdly, reviewing the internal and other related documentation (5 documents) concerning policies, procedures, digital business requirements, and business solutions hands-on. Finally, Attended related meetings (20 meetings) of the digital transformation program within the targeted institution. Following the action research methodology, this study performed three rounds to test the output of each stage, then directed to the next stage until the targeted transformation roadmap is finetuned and achieved as detailed in Methodology sections 3,3.1, and 3.2 above.

The main outcome of this study crafts a practical and comprehensive roadmap for transforming a physical business model into a digital business model for SMEs of financial services, which enables an effective and efficient transformation in the market of Qatar.

The introduced transformation roadmap works as a direction and navigation map for

both managers and researchers of digital transformation. It is comprehensive in terms of business values which include value proposition, value creation, value capture, and the timeframe of the transformation program. Moreover, the roadmap design enabled the targeted firms to explore and examine the firm's internal capabilities such as platform and human capital then the external factors and forces of the digital ecosystem such as integration capabilities with government institutions and payment gateways.

This study has outlined the critical activities of business model elements that enable conducting effective and efficient business model transformation from physical to digital for SMEs of financial services. Additionally, part of these activities has been tested by applying an action research methodology. The concluded result is that a reasonable part of physical activities needs to remain along with the new proposed digital activities for having successful businesses. Accordingly, this study recommends a hybrid business model which includes both digital and physical activities.

Furthermore, the study has explored various challenges of digital transformation which can be classified into internal challenges represented by culture, leadership, investment return, capabilities, cost, and service availability. On the other hand, the external challenges are legalities, regulations, customer experiences, market competition, technology, and vendors' capabilities.

Moreover, the introduced and utilized methodology has a high contribution to reducing the risk of failure and is considered a key success factor which was achieved through:

   i.   The ability to develop an accurate, dynamic, and interactive implementation plan for a long-term digital transformation journey,

  ii.   Attracting the digital transformation investors to sponsor and support,

 iii.   Utilizing and benefiting from all related parties' expertise and capabilities,

iv.   Identifying, establishing, and cultivating the firm's dynamic capabilities.

In Summary, in this study, the researcher managed to come up with a mechanism/methodology for institutions and practitioners to transform from physical to digital business models and can be utilized as an enabler/tool to explore and examine the forces that impact the digital transformation program during the journey of business model innovation.

6.2. Theoretical Implications

The study introduced a comprehensive, clear, and well-understood digital transformation roadmap based on the firm's dynamic capabilities of humans and technology across the full business dimensions and processes. Moreover, the introduced digital transformation roadmap by this study has theorized contribution to the business model innovation methodologies.

The available published digital transformation frameworks and business models innovation frameworks such as MIT (2011) and Ramdani (2019) have undergone practical testing and the concluded gaps had been fulfilled for a specific industry (SME financing services) in the market of Qatar.

The study also highlighted the limitation of the existing frameworks/methodologies in the context of the SME financing services industry, and it contributes to filling the gaps as illustrated below:

i. Proposing a comprehensive and detailed digital transformation roadmap for SMEs' financing services.

ii. Respectable contribution demonstrating the influence of scientific research as an

action research methodology in the practical world by realizing the contribution to achieving an effective and efficient digital transformation.

iii. Identifying the key faced internal and external challenges specifically for the SME financing industry. In addition to "How," the firm under study overcomes these challenges.

6.3. Practical Implication

This study is a keen mechanism to attract digital transformation investment by the firm's decision-makers. Also, it enabled achieving an effective and efficient digital transformation. Below is a summary of the key found practical implications of this study:

i. Although a fully digitalized model is feasible, this study emphasized the importance of the hybrid business model that could be the best fit for business success in the SME financing services sector.

ii. It proved that sponsorship and leadership are key success factors for achieving the targeted digital transformation program, particularly, on vital dimensions such as budget approvals, culture change, time commitment, and talent acquisitions.

iii. This study explored the impact of the Ecosystem's maturity on the success of the digital transformation journey such as legalities, regulations, integration capabilities with the government, complementary service providers such as payment gateways, insurance, anti-money laundry, credit bureau, …etc.

iv. The study has the potential to attract digital transformation investment and sponsorship. Furthermore, the proposed comprehensive roadmap contributes toward the reduction of the implementation risks.

In summary, this study proved that the action research methodology has a strong contribution to the theory and practical world. The contribution to the theory by testing the relatively developed frameworks and crafting a new enhanced digital transformation roadmap. On the other hand, the practical contribution through introducing a comprehensive digital transformation roadmap guarantees the effectiveness and efficiency of the digital transformation for SMEs' financial services.

6.4. Recommendations

As a result of this study below are the key suggested recommendations to be considered for the digital transformation of the SME financing industry:

6.4.1. Key Theoretical Recommendations

i. This literature is industry and country-specific and conducted in an emerging market, due to the importance and countable benefits. It is recommended that new research in the same field be expanded to include other markets.

ii. Digitalization comprehensive roadmap up to activity level can be generalized and replicated in similar countries and economies because it brings about substantial benefits such as efficiency, and cost-effectiveness and provides good ground for a gradual shift from physical to digital business practices.

6.4.2. Key Practical Recommendations

i. Link digital transformation goals and initiatives to the firm's strategic goals, therefore obtaining smooth top management support and sponsorship, such as

considering digital transformation initiatives as a vital factor for a sustainable competitive advantage and protection against digital disruptions

ii. Gradually launching digital services to enable building digital customer experiences, the firm's culture, and internal capabilities. For example, starting digital transformation with simple processes and then moving forward to the more complex ones. In addition to benchmarking the firm's digital offerings and capabilities with competitors to make sure that they are aligned with industry standards and able to satisfy customers' expectations.

iii. Finance organizations are recommended to formally adopt digital solutions such as digital signatures and the electronic Know Your Customer eKYC process as a part of the digital transformation roadmap. However, firms need to carefully consider the ecosystem capabilities and limitations which are mainly regulations and legislation

iv. Choose the best fit digital vendor and services providers based on long-term partnerships and a win-win situation for both parties. Meanwhile, consider the budget and human capital limitation of the digital transformation program by having proper short and long planning, KPIs, and goals.

v. Finally, targeting a hybrid business model (Physical and Digital) for efficient and successful SME financing businesses

6.5. Limitations and Future Research

These study limitations are the time constraints that did not allow the researcher to test all the activities during the digital transformation journey for the targeted firm because the research was accomplished in approximately one year whereas the targeted

program's planned duration is for seven years. The second limitation has focused on one firm in one single country.

For generalization purposes, future research could look into the following recommendations:

i. To be conducted on a similar research approach comprising other and multiple other financial services SMEs such as investment, insurance, and money exchange companies.

ii. Explore more case studies in multiple countries.

iii. Considering longitudinal to cover the full transformation journey.

iv. Cross-sectional for more cases for the same period.

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APPENDIX I: INTERVIEW RESEARCH QUESTIONS

The purpose of this study is to craft a comprehensive roadmap for transforming a physical business model into a digital business model for SMEs of financial services, which in turn will enable achieving an effective and efficient transformation. Accordingly, we were inspired by the below questions based on the conducted literature review which covered business models and digital business models definitions, digital business model transformation and innovation definitions, business models frameworks and dimensions, business model innovation frameworks including the key activities under each dimension, and then roadmaps and methodologies for the digital transformation of business models. Then we moved deeply to understand the nature of the digital transformation of SME financial services by extending the literature review to explore the drivers, enablers, outcomes, challenges, and traps of digital transformation.

Questions are constructed to be compatible with all business areas of SME's financial services, so the targeted business team member can answer the questions from their point of view, expertise, and a domain:

1. What are the key activities of your business area:

    i.   will continue without any change in both business models physical and digital?

    ii. will be introduced in the digital business model?

    iii. will disappear in the new digital business model?

2. For the activities that already transformed to digital, do you suggest a better way if you asked to do the transformation again?

3. What are the required changes to the current processes to be compatible with the digital business model?

4. What are the required human capital levels of expertise and competencies to achieve a successful transformation from a Physical to a Digital Business Model and then operate it?

5. To what extent do the digital capabilities of related third parties of SME Financing Services contribute to the success of business model transformation from physical to digital?

6. What are the expected changes to the offering and promotions of products and services to the customers due to the new proposed digital business model?

7. Outline the internal and external challenges that were faced, or expect to be faced during the business model transformation journey from the physical to the digital business model?

CONSENT FORM
ROADMAP FOR DIGITAL BUSINESS MODEL TRANSFORMATION: THE CASE OF AL-JAZEERA FINANCE (AJF)

Principal Researcher: Ibrahim Al-Mesbahi, MBA Student, Qatar University.

Faculty Advisor: Boumediene Ramdani, Professor, Qatar University.

You are invited to participate in a research study about the Roadmap for Transforming Business Model from Physical to Digital for SME Financing Services.

If you agree to be part of the research study, you will be asked to answer the list of the attached questions for one to two hours for up to three rounds of meetings.

The benefit of the research is to craft a comprehensive roadmap for transforming a physical business model into a digital business model for SMEs of financial services, which in turn will enable achieving an effective and efficient transformation.

The required approval for your participation has been collected from your organization's HR department/authorized party.

Participant identity information for up to 20 participants will not be shared with any other party, meetings will be audio-recorded (if applicable).

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to answer any research question or not to continue with the interview for any reason.

As part of the research, we may not tell you everything about the purposes or procedures of the research. At the conclusion of the study, we will provide you with that information, and research results will be shared with you and your organization as well.

If you have questions about this research study, you can contact the research advisor Prof. Boumediene Ramdani, b.ramdani@qu.edu.qa.

Thank you for participating in this study.

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