

Student Name:	Abhishek ishvarbhai Goyani	Student No:	2230880
Programme of Study:	MBA	Campus:	Swansea business campus
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Dissertation Supervisor:	Daniela Hellyer
Programme Manager:	Marie Pitson

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Abstract

Digitalisation has come to the world of multinational corporations (MNCs), necessitating new thoughts on their strategies, operations and competitiveness in many global markets. This research, therefore, seeks to analyse digital transformation within MNCs, focusing on how it affects strategic planning, operationalisation efficiency and market ranking. It uses a literature review to understand the complex relationship between digital innovation and international business strategy; hence, it appreciates how cutting-edge technologies will shape future businesses.

Chapter 2 extensively examines the literature concerning its theoretical foundations regarding digital transformation and its impact on business strategies. This section discusses some examples of companies that have ventured into the digital space, giving insights into the practical implementation of ‘born-digital’ initiatives. The analysis points out various paths different industries take as they undertake their digital transformation; thus, it stresses the requirement for unique strategies tailored towards each MNC’s challenges and prospects.

Chapter 3 explains the methodology by adopting a secondary data-based qualitative approach. With this methodology, one can address the subject as closely as possible to understand where globalisation is headed through a nuanced view of what occurs across borders.

Chapter four contains findings about how MNEs cope with this change at managerial levels and operationally. Technology continues to be a key driving force behind sustainable development through improvements. Furthermore, MNEs need help integrating digital technology into central strategy themes.

This study argues that going forward, no MNC operating on these platforms would afford to ignore the imperative of digital transformation. It demystifies the complexity of navigating shifts associated with digitisation while offering helpful advice on how companies like MNCs can effectively leverage digital technologies for strategic gains. Finally, various areas have been suggested as possible subjects for future studies so that further research can shed more light on the International Business Strategy that occurred due to the diverse sectoral nature or geographical locations during the digital transformation.

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“An Analysis of the Impact of Digital Transformation on International Business Strategy”

Chapter 1 Introduction

1.1 Background

The commencement of the 21st century marked the advent of an age characterised by unparalleled technological expansion. During the first years of the 21st century, significant changes were occurring in worldwide environments, influenced mainly by advancements in digital technology. Various industries spanning healthcare, banking, retail, and manufacturing have seen essential transformations, necessitating the revaluation of existing operational approaches and the conceptualisation of new business frameworks. At the core of this technological revolution lay the concept of digital transformation. Digital transformation has emerged as a significant facilitator of company development and competitiveness, extending beyond being only a popular term (A new Edge Architecture for AI-IoT Services deployment, 2020). The phenomenon goes beyond the simple incorporation of digital technologies; it signifies a comprehensive shift in how organisations address their business challenges, provide to their clientele, and attain their goals (Williamson, 2020). The transformation process is not confined to incorporating new technology but encompasses reconfiguring organisational cultures, strategies, and the fundamental principles underpinning corporate operations.

Moreover, the domain of international commerce has provided a distinct array of obstacles and possibilities within this framework. Multinational businesses (MNCs) face the challenge of adapting to diverse technical standards and customer behaviours across numerous markets, often exhibiting conflicting characteristics (Alabbasi and Sandhu, 2019). Navigating the complexities of varied cultural subtleties, varying legal frameworks, and diverse market dynamics has gotten more difficult in the era of digitalisation. Digital transformation is critical for global organisations since it encompasses more than technology competition. Instead, it is deeply intertwined with their strategic navigation of the worldwide marketplace. The intricate connection between digital transformation and its impact on international business, it becomes apparent that this association is complex, affecting various aspects such as operational effectiveness, strategic anticipation, competitive stance, and global value generation.

1.2. Importance of the Study

Multinational companies (MNCs) have developed as prominent entities within the intricate fabric of global business, serving as critical participants that connect markets, cultures, and economies. Due to their extensive scope and significant impact, these firms are at the core of an unyielding whirlpool of competition, swiftly changing customer preferences and a complex network of varied regulatory environments. In the middle of this ever-evolving context, a prominent and compelling factor emerges: the phenomenon of digital transformation (Aljahdaly and Balubaid, 2020). Digital transformation extends beyond the simple adoption of contemporary software or hardware, including a holistic change of corporate operations, strategy, and consumer involvement. Multinational corporations (MNCs) face increased levels of risk and importance. The task at hand encompasses the integration of cutting-edge digital innovations and ensuring their compatibility with the diverse intricacies of various locations, given the widespread presence of activities across continents. Hence, deliberately incorporating digital tools and methodologies is a fashionable decision and essential to sustain and expand organisations in an evolving digital-centric society. The significance of this research becomes more evident when considering the rapid rate at which technical advancements are occurring (Alreshidi, 2019). Throughout a very short period, advancements such as Artificial Intelligence (AI), the Internet of Things (IoT), and blockchain have transitioned from theoretical ideas to practical instruments, significantly transforming established corporate frameworks. The impact of these technologies extends beyond mere alterations to corporate operations, as they fundamentally reshape whole sectors, introduce novel business frameworks, and cause shifts in power relations within the global market (Bugrov, W. Sitnicki and Serbin, 2021). This study endeavours to elucidate the complex interplay between digital transformation and international business strategy to offer valuable insights to multinational corporations (MNCs). The acquired insights will guide these organisations in navigating the complex landscape of digital integration and enable them to use the promise of digital breakthroughs actively (Zhou *et al.*, 2019). Moreover, this research has significant value for stakeholders, politicians, and strategists in the international business domain. It is a contemporary and indispensable resource, encapsulating the prevailing spirit of a technologically changing period.

1.3 Scope of the Study

In the modern era, international companies have had to adopt information technology to be competitive in the global business environment. This dissertation explores how digitalisation has influenced strategy development and MNC's operational efficiencies by focusing on the

adaptability required for survival in technological advancements. Such automated and simplified procedures affect the world's productivity, efficiency, and business results (Chiang & Zhang, 2016; Demsetz & Lehn, 2020). As a result, this research will provide insights into dynamic changes and challenges MNCs face, further enlightening the significance of digital transformation in shaping global business strategies.

This is important for the dissertation, and several case studies will illustrate how global business strategies have successfully incorporated digital transformation. In this regard, real examples from a few MNCs will be given on how they achieved their digital transformations (Enterprise analytics: optimise performance, process, and decisions through big data, 2013). This research project will also explore the problems of spreading digital transformation among MNCs (Verma *et al.*, 2022). After that, there is an explanation of other ways to resolve these issues and navigate effectively across them. Finally, it aims to have insight into the latest trends in the field of digital transformation; hence, it can establish current changes in global business and determine what lies ahead over the following years. This research focuses on Asia and Europe's digital transformation processes, looking at their strategies, operations and competitive positioning to ensure their relevance to the stakeholders in the digital age.

1.4 Rationale

The corporate sector has seen a significant change in the last ten years, mainly due to digital innovations known as the digital renaissance. This transformation has changed how traditional businesses have worked with companies, such as e-commerce developments, digital supply chains, and AI-fuelled customer analytical tools that have shaped the industry's future (Khanchel 2019; Lim 2022). On the other hand, multinational corporations (MNCs) must satisfy the global market while adhering to local nuances, which are increasingly difficult to understand in the fast-paced digital world (MacCallum 2022). In a digitised global economy, these companies' successful strategic models may no longer be pertinent (Mesanovic 2020). Although there is abundant research on digital transformation, there seems to be an incomplete analysis of various strategies for MNCs' survival in different markets during digital disruption. This article seeks to bridge this gap by shedding light on how worldwide business strategy can be impacted by digital transformation while offering insights on what firms can do to handle such challenges and benefit from the growing online marketplace.

1.5 Research Gap

Several other investigations have already been done on how digital transformation impacts global enterprises. However, comprehensive research is needed on the strategies of multinational corporations (MNCs) in different geographies during the era of disruptive technologies. Such a gap underscores the need for an inquiry to explain the challenges MNCs face in the digital economy and recommend strategic adaptations they must undertake to remain competitive within various digitally driven global markets.

1.6 Problem Statement

In the contemporary and dynamic digital environment, Multinational Corporations (MNCs) face the challenge of effectively incorporating digital transformation into their global business plans (Mintzberg, 2020). The digital revolution presents many prospects for worldwide market development and increased efficiency. However, it also brings up a multitude of intricate obstacles. Multinational corporations (MNCs) face the challenge of integrating various technical advancements into several geographic markets, each characterised by distinct cultural, legislative, and consumer factors. The absence of a cohesive framework or complete comprehension of the strategic integration of digital transformation frequently leads to fragmented methodologies, overlooked prospects, and significant determinants in terms of competitiveness (Musik, 2014). Given the rapid acceleration of the digital shift, it is crucial to acknowledge the strategic mismatch and provide multinational corporations (MNCs) with the required insights and tools to use the potential of digital transformation in international commerce effectively.

1.7 Structure of the Dissertation

The present dissertation has been methodically organised to provide a coherent and complete investigation of the influence of digital transformation on the strategies used by worldwide businesses. Every chapter fulfils a specific objective, guaranteeing a cohesive and systematic development of ideas.

Chapter 1: Introduction is the first section of the research, providing readers with a comprehensive understanding of the history, significance, and justification for the study. The introductory section defines the contextual framework and provides a foundation for the following chapters.

Chapter 2: Literature Review delves into existing academic and industry literature, surveying the current knowledge related to digital transformation in the global business landscape. This

study's primary objective is to discover gaps within the current body of literature and to emphasise any areas of disagreement or agreement among scholars (Özdemir and Hekim, 2018).

Chapter 3: Methodology elucidates the research methods employed in the study. The document offers comprehensive information on the methods used for data collecting, the design of the research study, and the analytical tools utilised, assuring the strength and credibility of the research (Sow and Aborbie, 2018).

Chapter 4: Findings and Results This paper expositions the unprocessed data and observations acquired throughout the study. The provided analysis presents a neutral perspective on the results, establishing a foundation for further analysis and understanding.

Chapter 5: Discussion delves deeper into interpreting the results, connecting the findings with existing literature, and drawing meaningful insights (Vance *et al.*, 2015). This study provides a critical analysis of the significance of the findings within the framework of international business strategy.

Chapter 6: Conclusion and Recommendation Synthesising the whole study entails integrating and analysing the results and conversations to derive overall conclusions. Additionally, this study provides practical suggestions for multinational corporations (MNCs), legislators, and other relevant parties, offering a comprehensive plan for effectively incorporating digital transformation into global business plans. [OBJ]

Chapter 2: Literature Review

2.1 Introduction

As a result of the relentless march of technological progress, digital transformation has become an absolute necessity for businesses worldwide. This transformation involves more than digitalisation; it encompasses integrating digital technology into all business operations and strategy elements, significantly changing how organisations offer value (Kotarba, 2018). These changes are expected to have a significant impact. According to Kraus *et al.* (2022), these trends are significantly more apparent when seen in the context of global business. Multinational corporations, which have operations across several different nations and cultures, are confronted with various opportunities and challenges brought about by the digital revolution (Isensee *et al.*, 2020). This literature review tries to disentangle the intricate connections between digital transformation and international business strategy by drawing on the findings of various scholarly publications and practical investigations.

2.2 Theoretical Framework: Digital Transformation and Business Strategy

2.2.1 The Nature of Digital Transformation

Digital transformation is a pivotal moment that cannot be overlooked within the dynamic realm of corporate operations. The advent of the digital age is marked by cutting-edge technology and its deep integration into all facets of business. To underscore this point, Schallmo & Williams (2021) characterise digital transformation as a drastic change that radically modifies the operational paradigms of firms and establishes new standards for value generation (Cijan *et al.*, 2019). It becomes imperative to place this transition within a larger theoretical framework to fully appreciate its breadth and significance. The Resource-Based View (RBV) is a helpful framework in this situation. RBV clarifies the crucial role that a firm's distinctive internal resources play in defining its competitive advantage. It was first proposed in the fundamental research of Kodua (2019) and then expanded upon by The RBV viewpoint, which has a strong resonance in the digital space. These essential intangible resources include modern technologies ranging from complex data analytics to the vast Internet of Things (IoT). Schallmo & Williams (2021) do, however, highlight the crucial realisation that having these digital devices alone is insufficient. When they are strategically entwined with a company's core strengths and incorporated into its bigger operational plan, their full potential becomes accessible. This concept is consistent with Teece's (2017) explanation of dynamic capabilities, emphasising how quickly a company may use its resources to adapt to the changing digital landscape. As such, the central theme of the digital transformation story revolves around judgment.

Both Cuthbertson *et al.* (2022) and Richey & Ponte (2021) focus on digital transformation, and they present examples that show a fundamental division in strategic frameworks used by companies in different sectors. On the other hand, Starbucks' social-economic move in Kahawa Bora contradicts its digital innovation ideas, as seen through technology moguls like Alibaba and Google. Therefore, this demonstrates that there are various things to describe, such as digital transformation, while also stretching the boundaries of competition strategy and social responsibility.

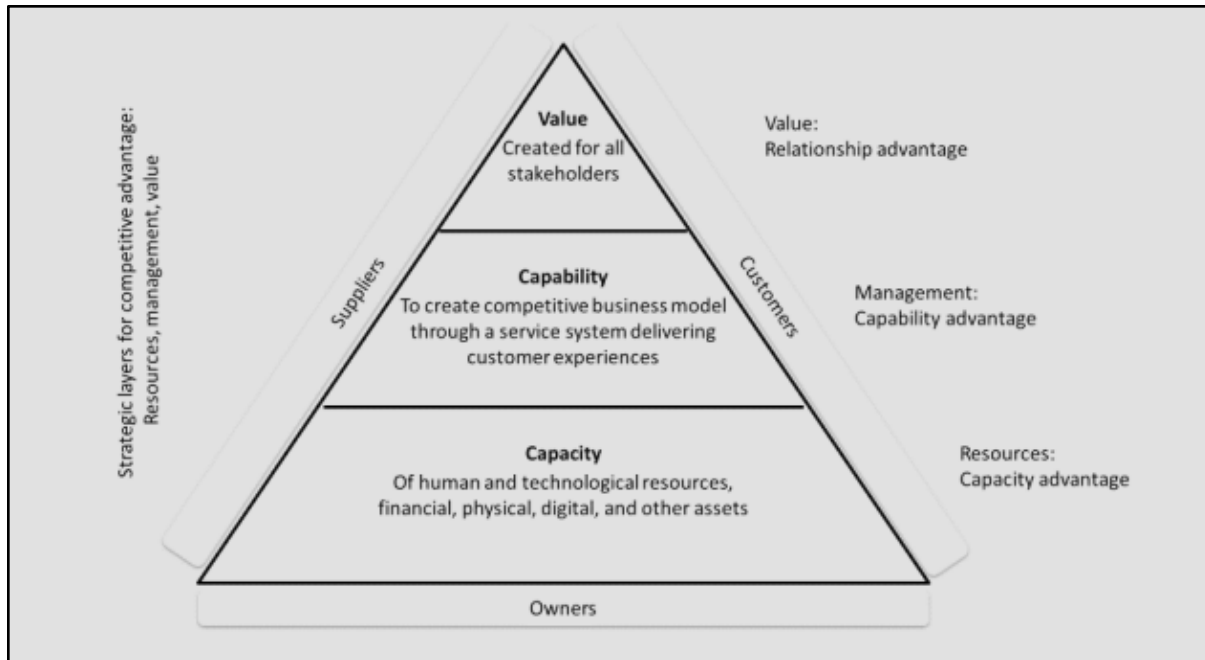


Figure 1: Value-Capability-Capacity Triangle
(Source: Cuthbertson *et al.*, 2022)

This article provides insights on the shift in technology companies from a traditional resource-based view (RBV) grounded on physical assets towards digital resources and innovation-based as a source of competitive advantage; the authors highlight the changes in RBV and KBV theories that consider the relevance of digital resources in today's business setting. In addition, they have endeavoured to merge their core operations and plans with new technologies centred on digitisation. Introducing this move by these firms helps them realise more value for their stakeholders within their sector by redefining innovation, thus positioning themselves differently from other actors.

Nevertheless, Richey and Ponte (2021) present an alternative perspective on Starbucks' involvement in the Kahawa Bora project in Congo DR. The move encompasses Brand Aid and VCDI to devise a Digital Transformation Strategy that integrates corporate strategy with tangible social outcomes. Starbucks is not just a digital company; it also invests in upgrading the coffee value chain and farmers' livelihoods there. The public benefits from an industrial edge through this, which finally brings about sustainable change at the neighbourhood level.

2.2.2 Beyond Technology

Even though it is closely linked to technology developments, digital transformation presents an argument beyond introducing new digital instruments. It reveals a more comprehensive tale of organisational growth in which an organisation's ethos, culture, and technology significantly

change (Gillpatrick, 2019). This significance is succinctly expressed by Bharadwaj *et al.* (2016), who emphasises that the digital transformation process involves more than just a technology overhaul; it also involves a comprehensive organisational culture and attitude change. To investigate this aspect further, the Organisational Culture Theory provides a valuable perspective (Nanayakkara & Wilkinson, 2021). This theory emphasises the need for a harmonious and supportive organisational culture. It is based on the notion that an organisation's ethos, which consists of its values, beliefs, and underlying standards, acts as the compass directing its many actions and choices. This cultural environment is what frequently forms the cornerstone of effective change in the field of digital transformation.

Open, flexible, and agile cultures provide an ideal atmosphere for assimilating and optimising digital projects. However, adopting digital transformation requires a more significant and deliberate cultural shift than just having an open culture. An atmosphere that values and actively promotes innovation must be established (Isensee *et al.*, 2020). It talks about creating an environment at work where taking calculated chances is the rule rather than the exception and where established ideas are regularly reassessed and when needed, challenged. A change in culture like this guarantees that a company is actively directing its course rather than just responding to the waves of digital disruption. The speed and scope of digital innovations make this shift in culture and thinking more critically. No matter how ground-breaking, technologies are still only tools. Their existence alone does not unleash their potential; their deployment strategy and the larger organisational ecology in which they function also play a crucial role (Feliciano-Cestero *et al.*, 2023). According to Bharadwaj *et al.* (2016), even the most cutting-edge digital technologies may still need to be utilised and realise their revolutionary potential with a supportive cultural framework that encourages experimentation, iterative learning, and a forward-thinking mentality.

2.3 The Convergence of Physical and Digital Worlds

The convergence of digital and physical domains is not only an observable trend but a revolutionary force transforming the patterns of trade and industry in the context of the ever-changing global business environment (Karki & Porras, 2021). Integrating this kind denotes a comprehensive reorientation of how firms conceive, plan for, and carry out their activities. It goes beyond introducing technology into procedures; instead, it replaces those methods entirely. This transition has been painstakingly emphasised by Porter and Heppelmann (2017), highlighting its enormous consequences for fundamental corporate strategy.

Clayton Christensen first proposed the Disruptive Innovation Theory in his landmark book "The Innovator's Dilemma" (Christensen, 2013). This theory is of critical importance to this discussion. According to theory, there are times when some innovations shake up the dynamics of an existing market to such a degree that they remove established market leaders along with the goods or services they have cultivated over time. A culture that fosters ongoing education, supports experimentation and maintains flexibility in the face of change should be cultivated in commercial settings. In today's nonstop digital disruptions, complacency may be dangerous for any person or organisation. As one investigates more, one becomes aware of the revolutionary influence that digital and physical technologies have on the complex machinery of corporate operations, known as the value chain. The Value Chain Analysis, developed by Michael Porter, is a foundational piece of the literature on strategic management. It enables companies to dissect their operations and learn how each section contributes to the development of total value. But as Porter and Heppelmann (2017) explain, this traditional value chain is being rebalanced with the advent of the digital era (Kontić & Vidicki, 2018).

For instance, in the field of inbound logistics, innovations like the Internet of Things (IoT) and Artificial Intelligence (AI) are revolutionising traditional processes by enabling real-time tracking, proactive maintenance, and autonomous inventory management. These advancements can potentially transform the industry entirely (Oh, 2019). The transformation of traditional manufacturing facilities into "smart factories" in which machines can interact with one another and optimise workflows is now underway (Shrouf, Ordieres & Miragliotta, 2014). E-commerce, drone deliveries, and digital tracking systems are becoming more prominent because of the impact that digital integrations have had on the outbound logistics industry. The power of the digital environment is most clearly shown in the areas of marketing and sales. These services were once dependent on human intuition. Still, today, they use data analytics and prediction algorithms to provide real-time marketing plans uniquely suited to each customer. This digital overlay gives a window into client behaviours, needs, and issues that have never been seen before, enabling companies to fine-tune their products and services with a precision that has never been seen before.

2.4 Digital Strategy

Business strategy is no longer limited to the constraints of conventional markets or linear procedures in today's hyper-digital environment. Instead, a massive transition occurs as companies negotiate huge, complex digital ecosystems where value is created via direct transactions and a broad network of collaborations, partnerships, and interactions. The Network Theory argues that

things, whether firms or people, get their worth from their place within an interconnected network rather than their independent traits, which find resonance in this expanding digital world (Eslick, 2018). This viewpoint completely changes the way firms think about creating value. Instead of seeing their activities as simple supply-demand equations or isolated silos, companies should see themselves as essential nodes within dynamic digital networks. Here, the focus switches to establishing connections, using data flows, and arranging oneself to use network advantages fully. In addition, the Dynamic Capabilities Framework provides an additional perspective on comprehending the digital strategy. No matter how strong, businesses cannot depend on their current skills in a constantly changing environment (Strange, Chen & Fleury, 2022). They must be agile enough to change, adjust, and turn, using what they already know and adding new skills simultaneously. In the digital era, such dynamism becomes the cornerstone of competitive advantage, determining a firm's position in the global arena.

2.5 Implications for International Business Strategy

Multinational companies (MNCs) strategy orientations are intricately affected by the ubiquitous nature of digital change. These multinational firms operate in several jurisdictions, presenting complex difficulties and possibilities influenced by the disparate digital environments across nations (Shahi & Sinha, 2020). One perspective through which to view these difficulties is the Institution-Based View (IBV). Meyer *et al.* (2017) state that multinational corporation's function in complex institutional settings. Regional differences are notable regarding the preparedness of digital infrastructure, legal requirements, and socio-cultural inclinations towards technology. For example, whereas a digital project may be implemented without problems in a technologically developed nation, it can face opposition in a less developed one because of regulatory obstacles or cultural concerns. Due to these institutional heterogeneities, MNCs must take a more sophisticated and region-specific approach to their digital initiatives to align them with the local institutional fabric. Moreover, by using the Uppsala Internationalisation Model, multinational corporations may gain vital experience as they navigate the road of digital transformation across different geographies (Coviello, Kano & Liesch, 2017). Multinational corporations (MNCs) can use the digital lessons they have learnt in one market to inform and improve their digital endeavours in another, as businesses adapt their internationalisation plans based on information accumulated from prior market engagements.

3. Impact on Strategy Formulation and Implementation

In addition to completely changing the operational aspects of firms, digital transformation has drastically changed the strategic elements. Multinational firms' strategic paradigms are undergoing radical change due to the increasingly complex and globalised environment in which they operate (Kotarba, 2018). According to Kane *et al.* (2019), there has been a significant shift in MNCs' strategic focus. The days of seeing digital projects as auxiliary tools for the primary company strategy are long gone. In the current digital world, they are fundamental to strategic thinking. The significant sums of money that multinational corporations invest in cutting-edge digital technology are evidence of the strategic importance of digital transformation. For example, big data analytics gives businesses previously unheard-of insights into customer behaviour, market trends, and competitive environments (Pereira *et al.*, 2022). Equipped with this detailed data, multinational corporations (MNCs) may make better judgments, more precisely adapt their services, and anticipate market issues. This strategic advantage is further enhanced by artificial intelligence (AI). Algorithms powered by artificial intelligence (AI) and machine learning models improve forecast precision, automate repetitive operations, and stimulate creativity by spotting trends and insights that would escape human scrutiny (Ryman-Tubb, Krause & Garn, 2018). MNCs are streamlining their operations and setting the stage for future innovations and market supremacy by integrating these technologies into their overall strategy.

However, the speed at which digital change occurs has its difficulties. According to Ross *et al.* (2020), businesses must include agility in their strategy DNA due to the rapid evolution of digital technologies and their ability to redefine market dynamics. With the ever-changing digital world, the time-tested practices of carefully crafting a multi-year-long strategy often need to be revised (Preindl, Nikolopoulos and Litsiou, 2020). The long-term vision is still alive. Instead, it highlights the need for adaptability while implementing strategies. Here, frameworks for adaptive strategies are highlighted. Companies are increasingly using iterative strategy cycles in place of static strategic blueprints. Regular recalibrations, ongoing feedback loops, and shorter periods distinguish these cycles. Using a modular and dynamic approach, businesses may quickly adjust their tactics in reaction to new possibilities, unanticipated market upheavals, or emerging digital trends (PETZOLT *et al.*, 2022).

4. Digital Technology's Ramifications on Company Models and Operations

The digital age has brought about a revolutionary change in how firms conceptualise their models and operations. In the face of widespread digital disruptions, traditional business axioms—

anchored on physical assets and linear production processes, are being reevaluated. Nambisan *et al.* (2017) highlight the rise of platform-driven business models to capture this transformative journey. The platform models centre on the coordination of interactions and exchanges, in contrast to the traditional models where value generation was inextricably linked to the ownership of resources and assets. Examples of this include Uber and Airbnb. These giants have not only carved out large market shares but also redefined industry norms, all while not owning the primary assets (cars or buildings) that support their services. Their secret to success is to use digital platforms to make it easier for service providers and customers to engage smoothly. They get revenue from these planned transactions rather than from asset ownership.

Operational domains have also been affected by this significant transition from "ownership" to "orchestration." Fitzgerald and colleagues (2016) explain how digital transformation has improved customer-centricity and operational agility. Integrated and proactive models are replacing the formerly isolated and reactive operational frameworks. Today's supply chain is a perfect example of this. Supply chains are now more than just logistics managers because of the introduction of real-time data analytics. These days, they are powerful strategic instruments that provide companies with an instantaneous understanding of market dynamics. Advanced analytics, for example, may sift through enormous information to identify new consumption patterns, forecast demand surges, or even spot logistical bottlenecks. Equipped with this knowledge, companies may adjust their product offers, optimise their transportation routes, and make anticipatory inventory choices. The resulting operating structure is more efficient and highly responsive to customers' demands and preferences. Increased customisation is also made possible by this operational dynamism. Businesses can now precisely adjust their products to each consumer as they get more detailed insights into their preferences. This leads to increased customer engagement and loyalty.

5. Case Studies: Using Digital Transformation to Inform Worldwide Strategies

A detailed case study evaluation of digital transformation shows a complex battleground with various strategies implemented in separate industries. Gilch and Sieweke (2021) examine Volkswagen's approach to using technology to recruit employees under its global digitisation strategy. This perspective takes an issue-oriented stand; nevertheless, the greatest challenge is acquiring the appropriate skills required for this changeover.

However, it differs from what Lang *et al.* (2021) said, who tackle Tesla and take a different angle towards digital transformation. The carmaker starts incorporating digital technologies at the root level, making it a natural proactive innovation instead of a reactive one. Consequently, this implies

that Tesla does not see digital transformation as an obstacle but instead as a part of its business model and strategic vision so much that they cannot be separated.

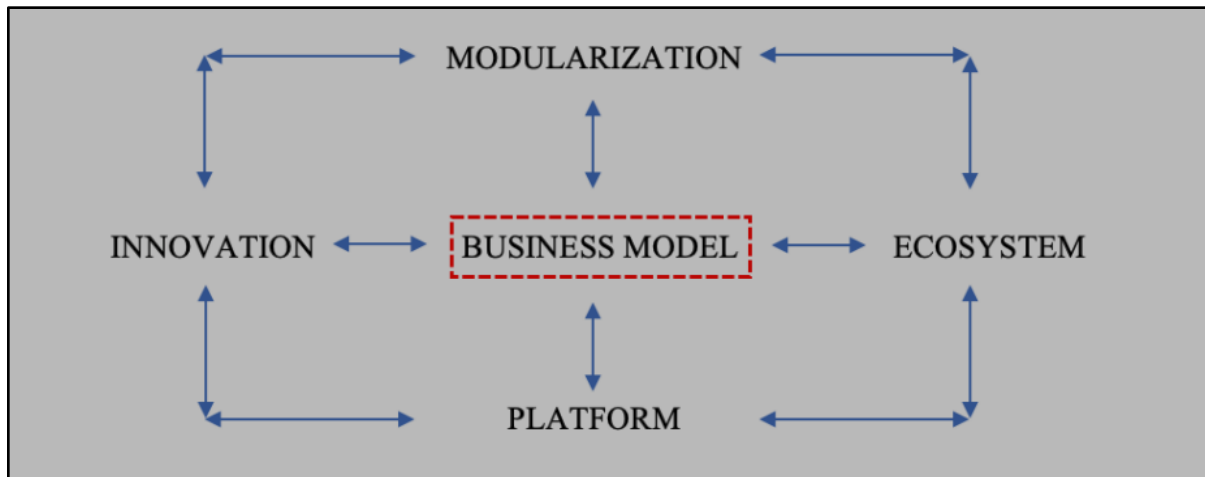


Figure 2: Nexus of combinatorial elements that permit business model value creation and value capture
(Source: Lang *et al.*, 2021)

Kim *et al.* (2024) focus on the financial sector in South Korea and provide an example of digital transformation at the corporate level. This point emphasises systemic changes and embracing digital lives as a total strategy. It differs from Volkswagen's position, which was focused on individual abilities but suggests that change in finance must be broader and more global **[Refer to Appendix 1]**.

Cui and colleagues (2023) have outlined Xiaomi's strategy, which they argue differs from others due to its concentration on management philosophy and creating an intelligent ecosystem chain. For Xiaomi, digital transformation is not centred on technology or talent but on management philosophy, where core values and strategic decisions are essential in framing the company's digital journey trajectory.

The case studies reveal a broad range of digitalisation features, such as Volkswagen's recruitment challenges for their digital employees, Tesla's seamless combination of digital technologies with its day-to-day operations and strategic changes at the corporate level in the South Korean financial sector, and Xiaomi's management rooted in philosophy. However, these different strategies demonstrate no universal approach or "one size fits all" perception when transforming a company into a digital firm. Enterprises select their ways based on industry nature, pre-existing corporate culture, strategic priorities and specific problems they are dealing with. For example, Volkswagen believes that digitally inclined people's competitive advantage is driven by digital innovation, which is why it treats this gap differently than the other. This suggests that rather than just

technology or human resource development, Kim *et al.* (2024) and Cui *et al.* (2023) could imply that successful organisation transformations are more about overall strategic vision and corporate culture integration than anything else.

Many new and old businesses have had to adjust their strategy to fully use the promise of digital technology have entered the digital age. A thorough examination of case studies clarifies the subtleties of this revolutionary journey and provides a model for other businesses on the verge of digital transformation. One of the leading players in the global industrial scene, Siemens, tells a compelling story about digital transformation. Siemens undertook a complete digital transformation journey, rethinking its conventional business paradigms, as explained by Cozmiuc and Petrisor (2020). This was a comprehensive strategy change rather than just adding digital technologies. Siemens enhanced its range of products by using digital technology, including automation, IoT, and sophisticated analytics, to provide solutions that are not only practical but also anticipatory (Preindl, Nikolopoulos & Litsiou, 2020). This proactive strategy gave its international clients access to solutions that reduced operational errors, maximised energy efficiency, and expedited logistics. At the end of the trip, Siemens established itself as a leader in digital industrial solutions and a supplier of industrial solutions, strengthening its position as a competitor in international markets (Ghosh *et al.*, 2021).

Haizar *et al.* 's (2020) account of Samsung's journey highlights the need for a robust digital ecosystem. As a significant electronics player, Samsung has many products and solutions. Still, it was a strategic coup to connect these dissimilar gadgets into a unified environment. Samsung created an environment where devices talked with one another, exchanging data, streamlining processes, and improving user experience via integrated platforms and seamless connection solutions (Teichert, 2019). This went beyond simple tech integration to include the development of comprehensive solutions that addressed a range of client demands, including automation, productivity, and entertainment. By creating a sticky client base, this ecosystem strategy strengthened Samsung's value offer and guaranteed ongoing engagement and loyalty. These case studies provide insightful information that other businesses may use to manage the digital world. Digital transformation is a strategic paradigm change that requires reevaluating operational frameworks, business models, and consumer interaction tactics. It is not only a tactical manoeuvre.

6. Obstacles and Remedies in Incorporating Digital Transformation

Although digital transformation can change how organisations function, it has challenges and issues. When multinational businesses (MNCs) embark on this journey, they often encounter problems that might impede their advancement.

6.1. Obstacles

a) Resistance to Change: Verhoef *et al.* (2021) identified resistance to change as one of the biggest obstacles. It may be difficult for staff members used to old working practices to adjust to new digital tools and approaches. This reluctance might also result from perceived complexity, anxieties about job stability, or a preference for current procedures. It only sometimes results from needing more knowledge (Karki & Porras, 2021).

b) Lack of Digital Literacy: As technology advances at a never-before-seen pace in the modern world, there is a growing skill gap. Many workers may need more abilities or understanding to use new digital technologies efficiently, which might result in mistakes and inefficiencies. The difficulty is heightened for multinational corporations (MNCs) operating in multiple locations due to the disparities in digital literacy levels across various nations and cultures (Ulas, 2019).

c) Cybersecurity Threats: As digital technologies are used more often, there is a greater chance that cyber risks may arise (Almaiah *et al.*, 2021). MNCs are easy candidates for ransomware attacks and data breaches because of their extensive data repositories and integrated business activities. A single breach may negatively affect one's reputation and cause financial loss.

6.2. Remedial Measures

a) Continuous Employee Training: To tackle resistance and the issue of inadequate digital literacy, it is essential to provide employees with ongoing training. MNCs should fund frequent workshops, seminars, and training sessions to keep staff members abreast of the newest technological advancements and industry best practices. In addition to being technical, these training sessions must include the "why" of the change, ensuring staff members comprehend the overarching strategic goal (Kontić & Vidicki, 2018).

b) Creating an Innovative Culture: Promoting an innovative, experiment-friendly culture minimises resistance. Ataei and Sadegh Sharifirad (2012). Employees are more inclined to accept new working practices when they believe they are a part of the change and that their opinions are respected. This fosters an atmosphere where creativity is encouraged, and failure is seen as a teaching tool.

c) Investing in Cybersecurity Infrastructure: Defending against online attacks is vital. Modern cybersecurity infrastructure must be an MNC's top priority (Rajasekharaiah, Dule, & Sudarshan, 2020). This requires people and procedures in addition to technology. Aside from owning the newest firewall or encryption technology, regular audits, threat assessments, and staff awareness programmes on cybersecurity best practices are as important (Kerfoot, 2012).

7. Trends and Future Developments

The digital environment constantly shifts, and new technologies continually develop, potentially radically transforming international commerce. For organisations to succeed in this climate, they need to be flexible, forward-thinking, and ready to realign their plans in reaction to the occurring adjustments. Quantum computing is one of the most exciting and potentially game-changing technologies that is already beginning to gain momentum (Moller & Vuik, 2017). Quantum computers employ quantum bits, also known as qubits, to process information in binary, unlike regular computers, which use bits to process information in binary (Upama *et al.*, 2022). This allows quantum computers to process enormous quantities of data at rates never seen (Upama *et al.*, 2022). This quantum jump in computing capability will have repercussions that span a broad spectrum. For example, the banking industry might profit from risk evaluations that are faster and more precise.

In contrast, enterprises in the logistics industry could optimise their routes and supply chains in real time. Another innovation that is expected to influence the future of international business is augmented reality (AR) (Sahin & Togay, 2019). AR, or augmented reality, is a technology that projects digital information onto the natural environment, as explained by Alimamy & Al-Imamy (2021). For example, AR may give consumers immersive and interactive shopping experiences in the retail industry. This enables customers to virtually "try on" items or see how furniture would appear in their house before purchasing. AR can also give buyers a more accurate representation of the product's size and colour. This translates to improved customer involvement, more opportunities for individualised service, and higher enterprise revenue.

Blockchain technology, which is most often linked with cryptocurrency, has larger applications that have the potential to revolutionise the way international commerce is conducted. According to Kim (2019), blockchain technology is fundamentally a decentralised ledger system that ensures the integrity and safety of financial transactions. It has a wide range of potential uses in international business, including verifying the genuineness of items, simplifying transactions across international borders, and preventing fraudulent activity. In addition, as globalisation and

the complexity of supply chains continue to increase, maintaining openness and trust is more important than ever. Blockchain technology has the potential to play a significant role in this context by providing traceability for items from their point of origin to the final customer (Wamba & Queiroz, 2020). A buyer in Europe, for instance, can purchase a product with complete confidence, knowing that it was obtained ethically from a supplier in Asia since the records stored on the blockchain are tamper-proof and transparent (Biggs *et al.*, 2017). It is abundantly evident that the landscape of international business will change significantly as these technologies develop and become more incorporated into companies' operations. For firms to properly exploit new technologies, they need to be proactive and invest in research and development, improve the skills of their personnel, and forge collaborations with other organisations. However, difficulties arise with introducing each new technical innovation (Dutta *et al.*, 2020). Concerns about data privacy and security, as well as the prospect of human employment being eliminated by technological advances, will need to be addressed by businesses. Businesses can handle these hurdles and capitalise on the enormous promise of modern technologies if they maintain an educated and adaptable state.

Literature Gap

There are still a lot of unresolved questions about this investigation regarding the way advanced change affects multinational companies (MNCs) in various locations. Like Kotarba (2018) and Kraus *et al.* (2022), some compositions have global business recommendations resulting from the advancing instability. In any event, during this cycle of change, improved practices from MNCs when they are relocating across different countries with different organisations and societies. Isee *et al.* (2020) examined potential openings and challenges as part of their research focused on advanced transformations. In the meantime, further research was anticipated to cover specifics related to these concerns about operations, frameworks, and social aspects in large multinational companies.

Schallmo and Williams (2021) examined the drawbacks of businesses operating beyond national borders that may affect MNCs' ability to adapt to developments in technology. Also, Bharadwaj *et al.* (2016) and Nanayakkara and Wilkinson (2021) emphasise organisational culture fit, and mindset shift during the digital transformation age. However, more research is needed on whether global MNCs with diverse cultural orientations can effectively handle these changes in their international operations.

Karki and Porras (2021) and Porter and Heppelmann (2017) have shown that combining the virtual and natural would be better. Therefore, scholars must investigate how companies operating in different markets can join their global operations. Nevertheless, the literature must highlight how MNCs can solve this by stating their tactics for closing gaps between different market contexts with varying degrees of digitalisation. However, more literature is required to analyse critically the specific approaches MNCs use when dealing with this complicated digital transformation matter. In addition, further studies should look at international business makeovers that take on digital technology among enterprises that may need to respond to cultural concerns or face legal barriers from various countries.

Chapter 3: Methodology

3.1 Introduction

In this crucial chapter, the fundamental objective of research, which is to analyse and assess the impact of digital transformation on the strategic planning, operational dynamics, and competitive positioning of multinational firms in the global marketplace. The objective of this study is to shed light on the many dimensions of the influence of digital transformation, with a specific focus on its effects on strategy development and execution, the evolution of organisational structures, and the incorporation of digital advancements into global corporate plans (Joensuu-Salo *et al.*, 2018). The choice of approach significantly influences the integrity and validity of research outcomes. The compass metaphorically serves as a guiding tool throughout study expedition, ensuring that each undertaken action is deliberate and by overarching goals. research methodology uses a qualitative approach, explicitly emphasising secondary data sources. This strategy enables to conduct an in-depth analysis of the current literature and case studies available. This methodology offers a holistic comprehension of the topic, facilitating the derivation of profound insights and conclusions deeply embedded in the surrounding circumstances and practical implementations. The present chapter serves the purpose of delineating the data collection and analysis techniques while emphasising the underlying justifications for these methodological decisions. Comprehending the rationale behind method is as crucial as the procedural aspect, as it offers clarity and validation for chosen approach. The interpretation of study results is strengthened by this basis, which guarantees their robustness, credibility, and relevance within international business strategy (Aazam, Zeadally and Harras, 2018).

3.2 Research Aim

To be critical, this paper aims to scrutinise the effect of digital transformation on the way strategies are formulated, operating processes and competitiveness in market contexts where transnational companies operate.

3.3 Research Objectives

- Examine how digital innovation affects strategy formulation and implementation in multinational companies.
- Examine the impact of digital technologies on global business models and operational frameworks.
- Evaluate real-world examples of organisations incorporating digital transformation into their worldwide corporate strategies.

- Determine and analyse obstacles and advice for implementing electronic change in international company policies.
- Investigate current practices and predict prospects of the development of digital transformation in terms of global business practices.

3.4 Research Questions

1. What is the impact of digital transformation on multinational strategic planning processes?
2. How do digital advancements affect operating efficiencies and global company business designs?
3. What problems are corporate entities grappling with whenever they try to incorporate digitalisation into their strategies, and what can be done to tackle them?
4. Which tendencies in digital transformation from today's international trade strategies, and what will happen next?

3.5 Research Onion Framework

In the Research Onion Framework by Saunders, Lewis and Thornhill, there is a logical way to conduct research. It is considered a hierarchical pyramid that guides different research phases (Saunders *et al.*, 2007). The outermost layer of this model starts with the choice between various research philosophies, such as positivism or interpretivism, which form the basis for any study. Moreover, researchers are also stuck with the problem of whether to use deductive or inductive approaches to meet their goals while investigating. The following essential aspect lies in selecting appropriate investigation methods, following what statistics tell, such as quantitative surveys and controlled experiments or qualitative interviews and observational fieldwork. The researchers also need to decide on the timing of their research, choose between a cross-sectional snapshot or longitudinal study, and then select data collection methods, which can be qualitative, quantitative, or both. This systematic methodological path ensures that each stage of investigation corresponds to the initial subject of the study, enabling the formulation of a well-structured plan for the performance of research works (Saunders *et al.*, 2007).

First and foremost, it is necessary to stress why different research philosophies and methods are highlighted in the research onion framework concerning the feedback. As a result, why may a study prefer a qualitative approach instead of a quantitative approach, or by what logic can a longitudinal time frame be selected, thus endowing some sense of the plausibility of the research design used. These justifications enable to understand how these decisions are related to the thesis objectives; hence, this model becomes more consistently applied.

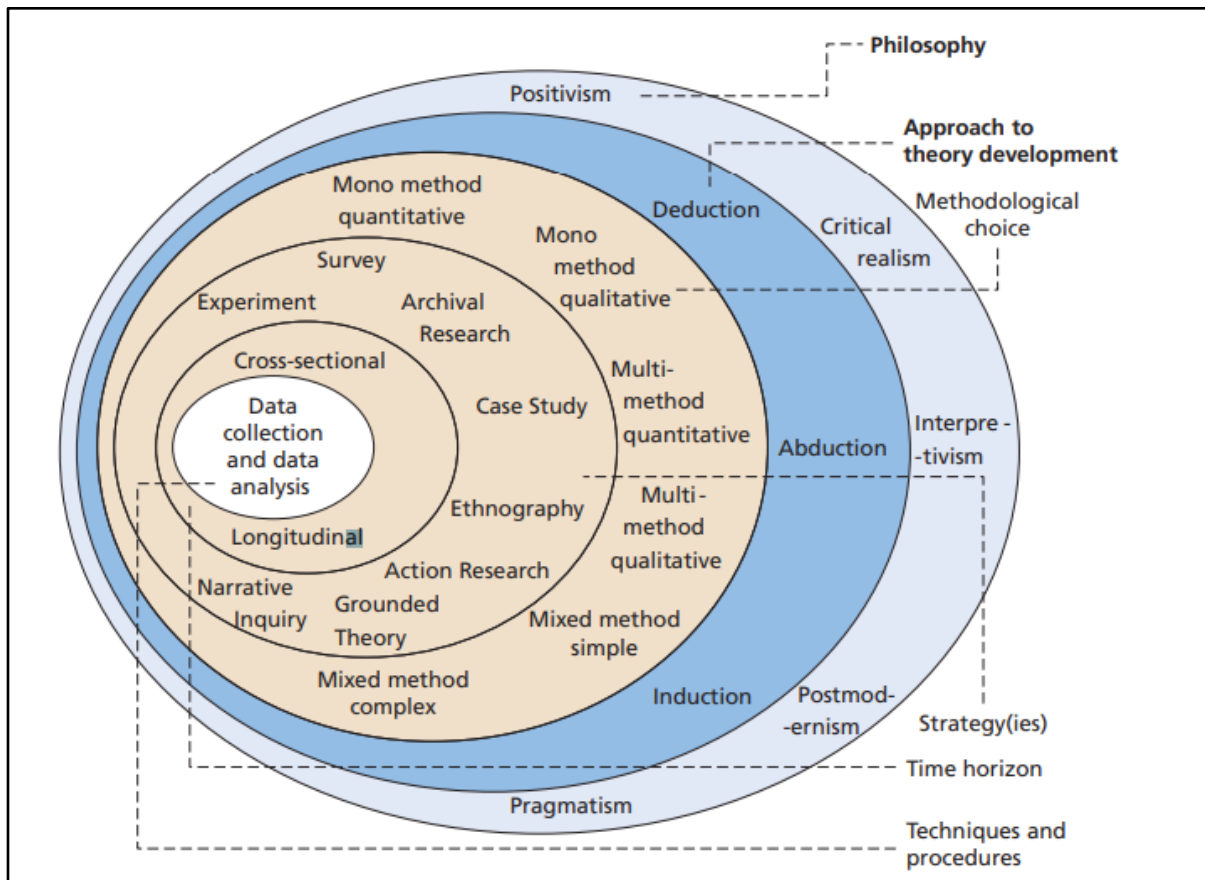


Figure 3: The 'research onion'
(Source: Saunders *et al.*, 2007)

3.6 Research Philosophy

An interpretative standpoint that favours subjective understanding of social occurrences is used in the article (Casalino *et al.*, 2019). This indicates that the perspective should be maintained while engaging with the digital transformation of MNCs because it goes beyond technological changes to address intricate socio-cultural dynamics. By adopting this method, personal experiences and perceptions within these companies can be studied to understand how digital strategies are conceived and executed in various cultural environments and organisational settings. That's why a more hidden form of comprehension is needed to fully understand how stakeholders perceive different digitalisation arguments on international trading; hence, an empathic manner like this investigative strategy (Alreshidi, 2019).

3.7 Research Approach

This study uses qualitative research methodology to examine the intricate details of digital transformation in multinational companies [Refer to Appendix 2]. Qualitative studies, unlike

quantitative techniques, which rely on statistics, mainly pay attention to individual attitudes and opinions of those involved in or affected by digital transformation. Technological innovation, cultural change and organisational adaptation are complex layers where digital metamorphoses are hidden. Investigating strategic decisions, operational changes, and cultural shifts being implemented highlights how subtle going-digital consequences have impacted world business policy (Andreev *et al.*, 2019).

3.8 Research Strategy

Secondary Data Utilisation

To serve this research purpose, secondary data collected for other purposes and can be used in a new research question was strategically used. This method draws on the extensive literature and information on digital transformation in the global business environment to provide an adequate basis for further analysis. Secondary data provides a vast range of information, unlike primary sources, which are limited by various cost implications (Chen, Chiang, and Storey, 2022).

Types of Secondary Sources

The topic must be relevant and comprehensive, so selecting secondary sources requires much thinking.

- Academic Journals: Offered in peer-reviewed journals are thorough theoretical and empirical studies that provide academically valid arguments and evidence necessary for supporting the research (Chiang & Zhang, 2016).
- Government Papers, Company News, and Annual Reports: These channels provide more information on the practical use and effect of corporate digital transformation strategies and first-hand perspectives on their implementation challenges and successes.
- Industry Reports and Case Studies: The article by Debauche *et al.* (2022) presents a practical perspective of the digital transformation process with input from industry experts and in-depth case studies on multinational corporations, their challenges, and accomplishments regarding strategy execution.

3.9 Data Collection

The Secondary Data Collection Process is a methodical system to ensure total and dependable data assortment while gathering secondary data.

- Determining Data Needs: Unearthing main issues like the digital revolution and its influence on global business approach.

- **Discovery of Sources:** Building up a pool of prospective sources of academic databases, digital archives, and industry publications, emphasising government documents, company reports, and empirical papers for grounded analysis.
- **Searching Strategy:** Developing a detailed search strategy using specific keywords related to digital transformation and global business (strategy).
- **Evaluation of Sources:** Rigorously assessing each source for relevance, credibility and timeliness; recent publications are preferable as they reflect current trends (Lim 2022).
- **Data Organization:** The collected data is systematically organised for easy access and analysis.

Selection Criteria for Sources

Selecting suitable sources was based on prioritising peer-reviewed articles dealing with multinational business strategies, authoritative company documents, and empirical studies. It picked out the most relevant ones for digital transformation in business (MacCallum, 2022).

Comprehensive Search Techniques

When undertaking a comprehensive search, use various academic and industry databases, alternate keywords in some cases, and consult scholarly articles' bibliography. The findings are consistent and reliable through cross-referencing sources to give a complete picture of digital transformation as it influences global business strategies (Nelson, 2019).

3.9.1 Search Strategy/Sample Size and Population

The study's search strategy aimed to include a broad range of secondary data on digital transformation in MNCs, emphasising empirical research. Twenty empirical studies were selected explicitly as they directly discuss the effects of digital transformation on global business strategies, operational dynamics and competitive positioning. These papers were selected based on their relevance to the research questions, their contribution to understanding digital transformation in the area, and their empirical findings across many countries. This means that the samples are cut across different industrial sectors as well as geographical locations to enable one to comprehend how various global business contexts have been affected by digital transformation. These will be used to analyse this phenomenon within international business.

3.9.2 inclusion and Exclusion Criteria/Sampling Technique

Criterion	Inclusion Criteria	Exclusion Criteria

Subject Focus	Papers focusing on digital transformation impacts within multinational corporations.	Studies do not directly address digital transformation or multinational corporations.
Methodology	Empirical studies provide quantitative or qualitative data on the effects of digital transformation.	Theoretical papers without empirical data.
Publication Date	Papers published within the last ten years to ensure relevance and current insights into digital trends.	Papers published more than ten years ago.
Industry Coverage	Studies that cover a wide range of industries provide diverse insights into digital transformation.	Papers are limited to a single sector with no cross-industry relevance.
Geographic Scope	Research conducted in multiple geographical locations to encompass global perspectives.	Studies focused on a single country or region with limited global applicability.

Table 1: Inclusion and Exclusion Criteria
(Source: Self-Developed)

Sampling Technique: The aim behind the choice of empirical papers was to ensure a representative sample of the most important publications in this field. The objective is to find a suitable collection of research materials that would provide an extensive view of different aspects of digital transformation in multinational companies.

3.9.3 Data Analysis

Data Analysis will use thematic analysis to systematise and interpret the qualitative data of the twenty empirical papers. This method will enable the identification of repeated themes, models, and insights into the impact of digital transformation on multinationals. The information analysis will also help review crucial aspects of digital transformation, like strategic realignments, operational complexities, and competitive reactions, which are depicted through coding the data

into meaningful themes. Synthesising empirical findings around a thematic framework would provide a holistic understanding of how digital transformation impacts the global business environment. To meet the objectives of the research work, this structured analysis will consider secondary sources comprehensively.

3.10 Boolean and Coding Table

Boolean Table

Citations	Keywords	And/OR	Keywords
Martinelli <i>et al.</i> (2021)	Digital Transformation, Italian Manufacturing Companies	AND	Industrial Revolution
Kraus <i>et al.</i> (2022)	Digital Transformation, Business Model	AND	Value Creation, Big Data
Pînzaru <i>et al.</i> (2022)	Sustainability, Digital Transformation	AND	Just Transition, Romania
Ekman <i>et al.</i> (2020)	Digital Transformation, Multinational Corporations	AND	Dual Embeddedness
Scuotto <i>et al.</i> (2020)	Digital Transformation, SMEs, Fashion Firms	AND	Social Media Platforms
Prabhu and Bhat (2020)	Artificial Intelligence, Samsung	AND	Case Study

Bosch and Olsson (2021)	Digital Transformation, Embedded Systems	AND	Business Models, Data Exploitation
Özkanlısoy and Akkartal (2021)	Supply Chain, Digital Transformation	AND	Industry 4.0
Hai <i>et al.</i> (2021)	Digital Transformation, Emerging Countries	AND	COVID-19 Pandemic
Baiyere <i>et al.</i> (2020)	Digital Transformation, Business Process Management	AND	New Logics
Verma and Rana (2021)	HRM, Digital Transformation	AND	Organization's Strategy
Guo and Zhao (2023)	Digital Transformation, Lenovo Group	AND	Manufacturing Industry
Izzo <i>et al.</i> (2020)	Digital Transformation, Oracle	AND	Continuous Accounting, Intellectual Capital
Bist <i>et al.</i> (2020)	Digital Transformation, Marketing	AND	Telecommunications, Indonesia
Schiума <i>et al.</i> (2022)	Digital Transformation, Multinational Companies	AND	Technology Adoption, Innovation

Porfírio <i>et al.</i> (2021)	Digital Transformation, Leadership	AND	Portuguese Companies
Li (2020)	Digital Transformation, Global Companies	OR	Iterative Strategies, Failure Rates
Abbu <i>et al.</i> (2021)	Digital Transformation, Grocery Sector	AND	Consumer Behavior, COVID-19
Pittaway and Montazemi (2020)	Digital Transformation, Local Governments	AND	Managerial Know-How, Public-Private Partnerships
Zhang <i>et al.</i> (2022)	Digital Transformation, Production Efficiency	OR	Chinese Enterprises, Economic Benefits

Table 2: Boolean Table
(Source: Self-Developed)

Coding Table

Citations	Keywords	Themes
Martinelli <i>et al.</i> (2021); Pînzaru <i>et al.</i> (2022); Ekman <i>et al.</i> (2020); Bosch and Olsson (2021)	Digital Transformation, Industrial Revolution, Sustainability, Dual Embeddedness, Embedded Systems	Theme 1: Digital Transformation Strategies in Historical and Sector-Specific Contexts
Kraus <i>et al.</i> (2022); Baiyere <i>et al.</i> (2020); Izzo <i>et al.</i> (2020); Porfírio <i>et al.</i> 2021	Digital Transformation, Business Model, Business Process Management, Continuous Accounting, Leadership	Theme 2: Operational and Managerial Impacts of Digital Transformation
Prabhu and Bhat (2020); Guo and Zhao (2023); Schiuma <i>et al.</i> (2022); Bist <i>et al.</i> (2020)	Artificial Intelligence, Samsung, Lenovo Group, Telecommunications, Multinational Companies, Marketing	Theme 3: Case Studies on Digital Transformation in Multinational and Technology Companies
Scuotto <i>et al.</i> (2020); Özkanlısoy and Akkartal (2021); Hai <i>et al.</i> (2021); Verma and Rana (2021)	SMEs, Fashion Firms, Supply Chain, Emerging Countries, HRM, Organization's Strategy	Theme 4: Digital Transformation in SMEs, Supply Chains, and Human Resources
Zhang <i>et al.</i> (2022) Pittaway and Montazemi, (2020) Abbu <i>et al.</i> (2021) Li (2020)	Digital Transformation, Oracle, Samsung, Lenovo Group, Multinational Companies	Theme 5: Technology and Innovation Focus in Digital Transformation

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Table 3: Coding Table
(Source: Self-Developed)

Summary Table

Peer-reviewed journal articles	Key Points	Brief Summary
Martinelli <i>et al.</i> (2021)	Digital Transformation, Historical Context	Explores how Italian MNCs leverage their past industrial revolution experiences in current digital transformation strategies.
Kraus <i>et al.</i> (2022)	Digital Transformation, Business Model	Reviews the status of digital transformation research in business and management, emphasising strategy and change management.
Pînzaru <i>et al.</i> (2022)	Sustainability, Digital Transformation	Investigates the integration of sustainability and digital transformation within Romanian businesses in the EU's just transition context.

Ekman <i>et al.</i> (2020)	Digital Transformation, Dual Embeddedness	Studies the digital transformation processes in MNCs focusing on the interplay between headquarters and subsidiaries.
Scuotto <i>et al.</i> (2020)	Digital Transformation, SMEs, Fashion Industry	Examines the impact of digital transformation on ambidextrous innovation orientation within Italian fashion SMEs.
Prabhu and Bhat (2020)	Artificial Intelligence, Samsung	Analyses Samsung's strategic application of AI in its products and services, highlighting its journey and future directions.
Bosch and Olsson (2021)	Digital Transformation, Embedded Systems	Investigate digitalisation's impacts on companies in the embedded systems domain, moving towards service-oriented models.
Özkanlısoy and Akkartal (2021)	Supply Chain, Digital Transformation	Discusses the effects of digital transformation on supply chains, focusing on efficiency and customer-centric operations.
Hai <i>et al.</i> (2021)	Digital Transformation, Emerging Countries	Explores digital transformation's role in leadership and organisational adaptation in emerging countries during COVID-19.

Baiyere <i>et al.</i> (2020)	Digital Transformation, Business Process Management	Analyses how digital transformation challenges traditional BPM logic, proposing new approaches for the digital age.
Verma and Rana (2021)	HRM, Digital Transformation	Studies the impact of digital transformation on HR practices, focusing on AI and cloud computing's role in enhancing efficiency.
Guo and Zhao (2023)	Digital Transformation, Lenovo Group	Reviews Lenovo's digital transformation strategies on data intelligence and digital consultancy services.
Izzo <i>et al.</i> (2020)	Digital Transformation, Oracle	Explores Oracle's adoption of continuous accounting practices enabled by digital transformation, impacting intellectual capital.
Bist <i>et al.</i> (2020)	Digital Transformation, Marketing, Telecommunications	Examines how a significant Indonesian telecommunications company integrates digital and traditional marketing efforts.
Schiurma <i>et al.</i> (2022)	Digital Transformation, Multinational Companies	Highlights the necessity of digital transformation for MNCs to maintain competitiveness and foster innovation.
Porfírio <i>et al.</i> (2021)	Digital Transformation, Leadership, Portuguese Companies	Investigates the relationship between leadership characteristics and digital transformation in Portuguese firms.

Li (2020)	Iterative strategies, Digital Transformation, Global Companies	Proposes iterative strategy for digital transformation success in global companies.
Abbu <i>et al.</i> (2021)	Digital Grocery, COVID-19, US Grocers	Examines digital transformation acceleration in the grocery sector due to COVID-19.
Pittaway and Montazemi (2020)	Digital Transformation, Local Governments, Managerial Know-How	Highlights managerial know-how's role in local governments' digital transformation success.
Zhang <i>et al.</i> (2022)	Digital Transformation, Production Efficiency, Chinese Enterprises	Studies digital transformation's impact on Chinese enterprises' production efficiency.

Table 4: Summary Table
(Source: Self-Developed)

3.11 Research Ethics

Ethical Considerations in Using Secondary Data

Both the original context and the intellectual property of the data must be respected when utilising secondary sources. Although the information is already available to the public, it must be handled with the highest confidentiality (Shaughnessy, 2018).

Respecting Intellectual Property: The original producers of the data must be credited. All information used in the research must be appropriately cited and referenced. In addition to giving credit where credit is due, this method enables readers to return to the sources for clarification or more research (Simon, 2021).

Contextual Integrity: It is crucial to understand and maintain the context in which the original data was obtained and presented. Evidence that has been misrepresented or decontextualized might result in erroneous conclusions and misinterpretations. For this reason, the research takes precautions to preserve the data's original intent and setting.

Avoiding Plagiarism: Plagiarism is a major ethical problem in the scientific community. The paper avoids this by carefully paraphrasing, quoting sources, and using extensive citations. By doing so, it can be confident that contributions to the study won't trample on the original authors' work (Sow and Aborbie, 2018).

Ensuring Integrity and Respect for Original Authors' Work

Comprehensive and Accurate Citation: All references to secondary sources are thorough and correct. This not only exhibits appreciation for the source material, but it also adds weight to the study.

Adhering to Copyright Laws: The research scrupulously follows copyright regulations, ensuring that the secondary data used does not violate the rights of the primary writers. Part of this is being cautious about how much and how the data is utilised (Tiwari, 2018).

Transparency in Data Usage: There is no concealment of the research's use of secondary data. This requires elucidating the data's role in the study and explaining how it affected the results.

Critical Evaluation of Sources: Each source is assessed for its usefulness and reliability and for any inherent flaws or restrictions. By taking such a critical stance, one can be confident that the data will be used fairly and ethically while protecting the source material's value.

3.12 Limitations

While there are numerous advantages to using secondary data and a qualitative approach, there are also drawbacks. Because of its heavy dependence on secondary sources, the study is limited by the breadth and depth of previously collected information. Particularly in industries experiencing fast change, like digital transformation, where the latest trends may still need to be adequately recorded, this might lead to knowledge gaps. Furthermore, the original writers' opinions may introduce biases regarding the quality and depth of the analysis. Publication bias, interpreting viewpoint prejudice, and contextual focus bias may all distort comprehension of an issue.

Further, this study's generalizability may be constrained by its qualitative character. Although qualitative data is rich in detail and context, it does not necessarily indicate broader patterns or universally apply to all MNCs. Therefore, results are less concerned with demonstrating statistically significant patterns and more about providing an interpretive framework. It is essential to recognise these restrictions since they may affect the interpretation of the results in the larger context of digital transformation in international companies (Wasim Akram, P. Rajesh and Shama, 2018).

3.13 Application of Thematic Analysis

To effectively examine the influence of digital transformation on international company strategy, it is essential to demonstrate proficient use of theme analysis within the research report. Thematic analysis is a systematic approach used to uncover, analyse, and present recurring patterns within a given dataset, also known as themes. The provided text effectively demonstrates a comprehensive organisation and detailed description of the dataset, often offering interpretations of different facets related to the study issue (Williamson, 2020).

Application of Thematic Analysis

Initial Data Familiarization: Commence the process by engaging in a comprehensive examination of the chosen scholarly articles to comprehend their content. Begin by making preliminary observations and recording noteworthy or recurrent concepts that arise (Wu *et al.*, 2018).

Generating Initial Codes: Based on the preliminary literature review, begin producing codes. The coding process entails identifying and selecting specific data portions pertinent to the research inquiries, such as textual content derived from academic publications. The process at hand is characterised by its continual and iterative nature.

Searching for Themes: The codes should be categorised into possible topics. Themes may be seen as patterns of reaction or meaning that emerge from the data collection. At this juncture, the objective is to examine the potential amalgamation of many codes to establish a comprehensive and overarching theme (Zahmatkesh and Al-Turjman, 2020).

Reviewing Themes: After generating a collection of potential topics, it is advisable to evaluate these themes thoroughly. This process entails revisiting the dataset and assessing how the identified themes correctly capture the underlying meanings manifested in the data (Ningyi, 2020).

Defining and Naming Themes: Explain in detail what each topic entails and what parts of the data it represents. To do so, examine each topic in depth and determine what intrigues about it.

Writing Up: In the conclusive report, it is essential to integrate the analytical narrative with compelling data excerpts to effectively convey the narrative of the collected data in connection to the research inquiry (Capturing student learning with thematic analysis, 2017).

Chapter 4: Findings and Results

4.1 Introduction

The fourth chapter analyses the crucial empirical paper and aspects of company reports and articles to support the discussion. The consideration related to data analysis addresses the crucial aspects of the research topic. The selected empirical papers shed light upon the various factors associated with digital transformation in the contemporary era. This approach enabled a thorough analysis of existing data, facilitating a comprehensive and extensive investigation into the different aspects of digital transformation. This research provides a systematic and complete view of the many impacts of digital transformation by categorising the data into numerous topics, including strategy adaptation, market dynamics, organisational change, and technical adoption. During the transition to the presentation of results, careful examination of each topic, uncovering detailed insights and patterns that have developed from the data. This chapter aims to describe and analyse these results in relation to the current information.

4.2 Data Analysis

4.2.1 Theme 1: Digital Transformation Strategies in Historical and Sector-Specific Contexts ***Evolution of Digital Transformation Across Industries***

The paper by Martinelli *et al.* (2021) discusses the effect of historical legacies on the digital transformation of Italian manufacturing MNCs such as Biesse Group, Bianchi SpA and Irca SpA. These organisations employ their historical experience to cope with digital change; hence, digitalisation has been a company's evolutionary process. This approach contrasts quick disruptive tech narratives that evangelise for the swift adoption of innovative technologies, indicating that established companies may benefit from taking a slower and more organic path.

On the other hand, Pînzaru *et al.* (2022), look at digital transformation in the Romanian business landscape by combining sustainability or digital strategies. This perspective reflects the many dimensions of digital transformation and technology diffusion that serve direct economic, ecological, and human purposes. Consequently, this is a more nuanced view of the relationship between sustainability efficiency and competitiveness often associated with driving forces for the digital transformation approach in the literature than usual.

The concept of dual embeddedness that explains the challenges of digital transformation faced by MNCs is discussed by Ekman *et al.* (2020). The article examines unnamed companies from the Forbes Global 2000 and outlines how negotiations between headquarters and subsidiaries

transpire. As much as it embraces technology, digital transformation in MNCs is about managing internal relationships. Its concern with these internal issues contradicts the market-driven external perspectives that commonly come up in this discussion on digital transformation, exposing how a journey to success may also accompany struggles inside an organisation.

Bosch and Olsson (2021), highlight the shift towards digital models that are service-oriented in companies in the embedded systems domain, like those found in the automotive and defence sectors. This sector-specific approach to digital transformation is predicated on integrating AI and ML technologies into this vital sector. Nonetheless, these high-tech solutions may only apply or be within reach of some industries, particularly where resource scarcity remains an obstacle or where there is still a lot of human involvement in their operations.

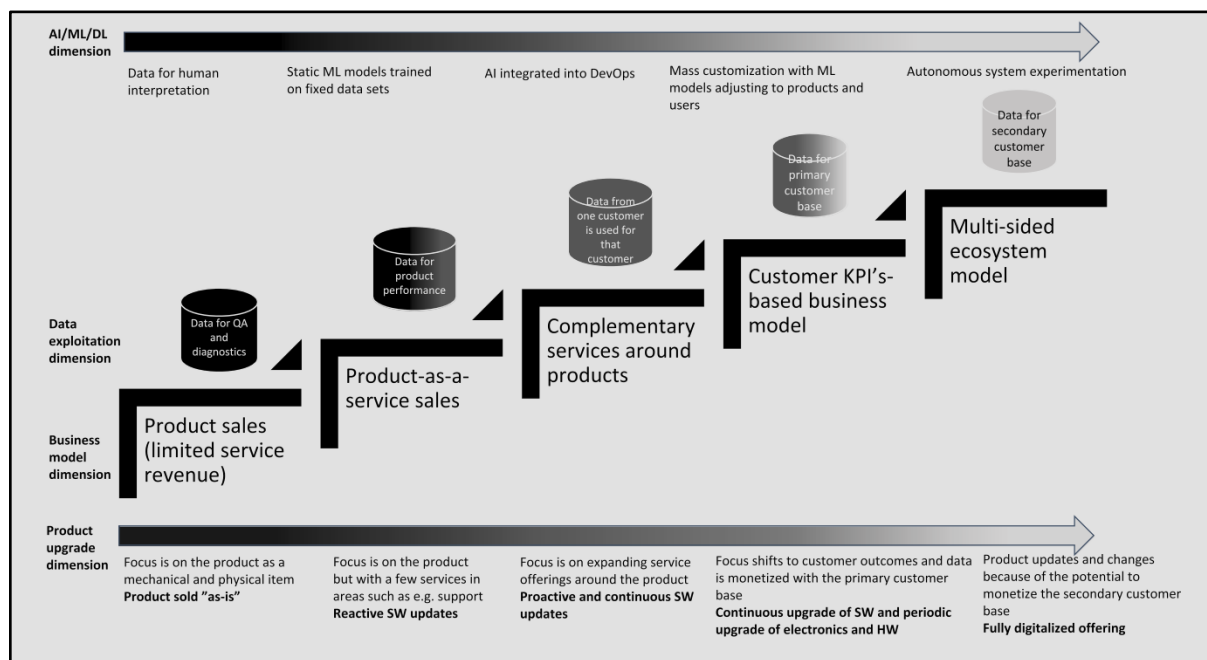


Figure 4: The evolution path from a traditional to a digital company
(Source: Bosch and Olsson, 2021)

One size does not fit all in this digital transformation; comparing these studies provides a good illustration. However, transitioning from conventional companies to digital ones varies greatly depending on the sector, history, sustainability issues, organisation dynamics, and specific technological background in each industry. Some notable firms, Biesse Group, Bianchi SpA, and Irca SpA, capitalise on their historical strengths to navigate digital change. Conversely, others must embed greenness and greening within their digitisation strategies.

Sector-Specific Digital Transformation Approaches

Though billed as one way to modernise and grow, there are wide-ranging differences where the digital transformation journey occurs in different sectors, which betrays the inconsistency of its application and outputs. In finance, it has meant fintech innovation that relies on blockchain and AI to improve client engagement and operational effectiveness. However, this industry confronts strict regulators who frequently delay the adoption of technological breakthroughs, thereby creating a puzzle whereby the most inventive sector is also among the most regulated. The primary driver of healthcare's digital makeover in telehealth and electronic health records is improving patient care and accessibility (Sah and Joshi, 2023). Nevertheless, the industry contends with massive data privacy issues and a digital divide where not all patients have equal access to the same technological advancements. This is an instance where the digital transition contradicts itself by closing and widening access gaps in healthcare. Thanks to companies such as Amazon, E-commerce and omnichannel retailing have seen tremendous business growth. Amazon's customer-centric design principles, which prioritise smooth shopping experiences, ongoing innovation, improvement driven by customer feedback, personalised product recommendations, speed and convenience, and customer loyalty while driving industry sales, are credited with the company's success (Osman, 2023). However, some sections of society and certain commodities still require traditional shopping experiences, pointing out a disconnect between the move to digital and the long-term importance of physical contact. The techniques of customer relationship management (CRM) in facilitating sales, services, and customer services personalisation and customisation (Anshari *et al.*, 2019).

The move of production towards the fourth industrial revolution, the IoT and automation in manufacturing, promises an unmatched level of efficiency and customisation (George, 2024). Nonetheless, this change requires significant capital outlay and skilled personnel, a challenge for most SMEs in this field. These specialised sector digital transformation approaches illuminate the broader narrative. In addition to giving rise to many opportunities for innovation and growth, digital transformation also comes with problems, which might increase the differences between and within sectors.

4.2.2 Theme 2: Operational and Managerial Impacts of Digital Transformation ***Enhancing Operational Efficiency Through Digital Tools***

The article by Kraus *et al.* (2022) examines what DT does in business and management from a generalist standpoint that embraces all industry sectors, including Oracle's tech-heavy ones and other kindred ones, thereby implying that it helps create business models and functions. However,

a “too positive view of DT in current literature” is not recommended due to a gap between theoretical merits and practical difficulties faced while using it. In contrast, Baiyere *et al.* (2020) propose a new way of managing business processes during the digital transformation era. They suggest companies should have ‘light touch processes’ and ‘infrastructural flexibility’. It demonstrates the company’s transition through the DT maze, suggesting an adaptive strategy that ensures better performance. It illustrates how difficult it can be if brands want to infuse their current operations with new digital tools easily. It is further complicated by the idea of ‘mindful actors’, thus showing that management and adaptation of digital tools in organisations ease workings or cause problems.

A recent case study by Izzo *et al.* (2020) shows how Oracle has recently embraced continuous accounting (CA) with support from DT. This study displays whether digital technologies can enhance intellectual capital and optimise decision-making by connecting DT with operational efficiency. Nevertheless, given the single-case design constraints, it implies that its findings cannot be generalised smoothly across multiple organisations in different industries, thus casting doubt on whether DT is a silver bullet for operation inefficiencies.

However, Porfírio *et al.* (2021) come with a twist through their examination of leadership in managing DT in Portuguese registered organisations, thus adding complexity to the above debate. At this point, leadership qualities have influenced the relationship between DT initiatives and organisational goal achievement as a performance-enhancing element. However, successful digital transformation requires certain specific features of its leaders. Success can mean many things; therefore, what may appear as an effective technological improvement may not necessarily be one without strategic leadership alignment.

The studies show that digital transformation is like a two-edged sword in the quest for operational efficiency. Furthermore, it should be noted that there are several other issues apart from opportunities for business process optimisation in the context of DT implementation, such as what Oracle has implemented with its CA (Baiyere *et al.*, 2020). These include integrating new digital tools into traditional systems (Baiyere *et al.*, 2020), and reconciling optimism and realism about expectations of DT (Kraus *et al.*, 2022) as well as aligning leadership with DT goals to make them work (Porfírio *et al.*, 2021). Companies must balance embracing digital innovations, managing attendant leadership complexities, and infrastructural organisational challenges.

Digital Transformation and Leadership Adaptation

The story about the connection between leadership adaptation and digital transformation is full of contradictions. Leadership is crucial in digital transformation (Firk *et al.*, 2021). Still, inherent managerial challenges make traditional leadership patterns redundant in the digital age. Leaders bear the onus of nurturing a digital culture but are often met with resistance from the deep-rooted inactivity entrenched within organisations. However, the expectation that this transition will be smooth under the guidance of visionary leaders collides with the human fear of change. While leadership is expected to bring about transformation, mobilising a workforce that adheres to conventional methods presents practical and logistical difficulties. Also, it is necessary to emphasise that fostering digital skills within teams can be a double-edged sword. The fast pace at which digital technology changes can mean that the competencies needed today may not be relevant tomorrow, making it difficult for managers to invest in short-term skill enhancements. This is a paradox because the enthusiasm to create a digitally capable workforce is curbed by the vanishing of digital technologies. Resistance to change management needs to be solved. Even though leaders strategically understand and are committed to digital transformation, their efforts are often met with scepticism and reluctance from teams (Otia and Bracci, 2022). Therefore, resistance is not just an obstacle but essentially an inconsistency that challenges the very concept of leadership effectiveness in digitisation.

4.2.3 Theme 3: Case Studies on Digital Transformation in Multinational and Technology Companies

Digital Pioneers: Multinational Corporations' Success Stories

In a world characterised by the digital revolution, Samsung, Lenovo, Toyota, Ducati, and the rest of its nameless telecommunication firms from Indonesia are multinational companies (MNCs) whose stories of success in this new journey challenge their claims to be universally effective. Different motives and outcomes drove each MNC's transformation into the digital world. However, these distinctions are best seen side-by-side as narratives showing the many ways and dangers of accepting digital entries. The strategic incorporation of artificial intelligence (AI) into Samsung's product range, as indicated by Prabhu and Bhat (2020), creates a yardstick for utilising digital tools to enhance customer experience. This shift towards building an ecosystem of smart devices also shows how AI can transform product development and user interaction. Nevertheless, unlike Lenovo's focus on consumer electronics and AI, which Guo and Zhao (2023) highlight, their change process is digitalised to cover product innovation and other areas such as operational activities and consulting services. The importance attached to data intelligence and supply chain

at Lenovo indicates that the application of digital technologies goes beyond direct customer engagement.

Toyota and Ducati's digital metamorphoses driven by their leaders, which were outlined in the work of Schiuma *et al.* (2022), show how essential transformative leadership skills are when dealing with digital transformation. On the one hand, continuous innovation and contradiction are embraced by Toyota; on the other hand, there is strategic redefinition at Ducati under CEO Minoli, indicating that organisations can be influenced by leadership vision and agility in their digital path selection. Toyota's transition into a mobility firm is being propelled by its innovation culture. The company's digital technology teams aim to improve business choices, product capabilities, and customer experiences (toyota.com, 2024). These teams include Information Digital Systems (IDS), Connected Technologies (CT), and IT Experiences (ITx). These groups provide individualised, cutting-edge, and technologically sophisticated goods and services. Nevertheless, as published by Bist *et al.* (2020), unlike the focus of Indonesian telecommunications companies on creating a culture of integration necessary for addressing the digital divide through digital marketing strategies, the emphasis on leadership driving digital change is contrasted to its counterpart in an Indonesian telecoms firm. In this case, it is not about how visionary or agile its leaders are but combining traditional and online promotional techniques to boost customer interaction and reach.

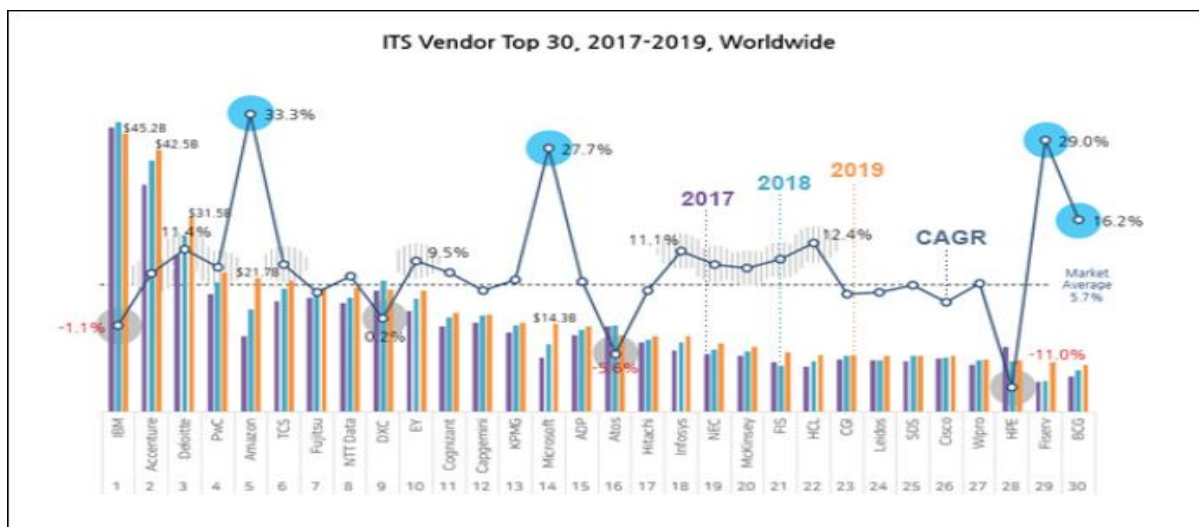


Figure 5: Global top 30 IT services companies
(Source: Dong, 2023)

The tales of the MNCs point out that digital transformation involves more than just modern technology; it also encompasses strategic management, operational efficiency, and market orientation. Samsung and Lenovo's focus on AI and streamlined operations are typical examples

of technological approaches to digital transformation. From 2017 to 2019, the top 30 worldwide IT services firms grew at an average pace of 5.7%, with innovators like AWS, Microsoft, and Fiserv emerging (Dong, 2023). At the same time, Toyota and Ducati's leadership-based strategies underpin the human face of driving digital innovation. In addition, the Indonesian telecom firm's effort to close access to IT through promotion reveals specific hurdles MNCs face in different markets. Instead, the journey to becoming a pioneer in the field of digital business is shown to be different for each player.

Lessons from Technology Giants

There is a consistent contradiction when one investigates the stories of technology gurus like Samsung, Lenovo, and others at the cutting edge of digital innovation. Even though these firms are clear instances of successful integration of digital transformation into their day-to-day operations, business models, and product strategies, it remains a mixed bag of wins in innovation and some significant challenges that check the excessive enthusiasm about digital transformation.

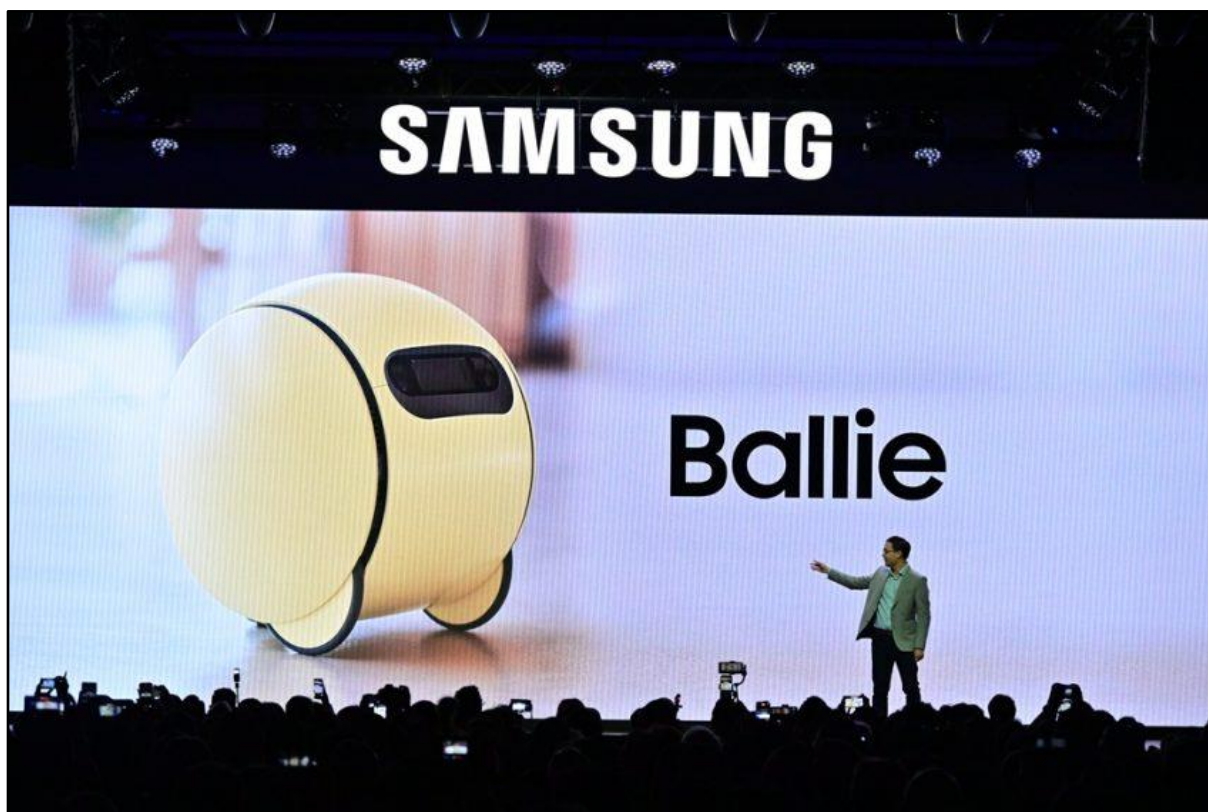


Figure 6: Samsung AI products
(Source: news.samsung.com, 2024)

Samsung's across-the-board AI integration demonstrates a clear vision for digital-first customer experiences. At CES (Consumer Electronics Show) 2024, Samsung Electronics presented its

vision for AI technology to improve user experience. The company focused on how AI will improve connected experiences without being obtrusive. The business offered goods and services to realise this goal (news.samsung.com, 2024). However, this approach is at odds with the broader industries grappling over smaller tech companies burdened by resource constraints and system legacy that thwart similar changes. The discrepancy here stems from inequality in digital adoption, where big organisations use it as a springboard for growth, leaving behind small businesses struggling to catch up.

Similarly, recent digital transformation improvements at Lenovo indicate a sector that aspires to perfect operational efficiency and innovation. Lenovo's digital transformation led to a 98% acceleration in production scheduling and a 60% faster supply chain decision-making process (lenovo.com, 2023). This divide is created by digital inequality, whereby only individuals worldwide can afford to buy specific gadgets or access internet connectivity. In this regard, leadership is central to propelling change through digital means. However, resistance has been confronted within organisations that may want to maintain their known procedures for the less-known fields of digitals.

4.2.4 Theme 4: Digital Transformation in SMEs, Supply Chains, and Human Resources

Navigating Digital Transformation in SMEs

Scuotto *et al.*'s (2020) research indicates that digital transformation in SMEs is a paradox. However, the barriers associated with the internet and flexible distractions tend to continue despite Ambidexterity that may be fostered by developments such as social media. In 2021, spending on digital transformation rose globally, reaching \$1.59tn due to distance working and the pandemic. Cloud technologies were used by 90% of businesses as of 2022 (statista.com, 2024). In contrast, this also shows different movements towards digital adoption for MNCs such as IBM, Siemens and Deloitte, highlighted by Verma & Rana (2021), indicating the significance AI and cloud computing have in reshaping HR practices. Hybrid work redesign, worker involvement, and strategy are all components of digital change. Though focusing only on change leads to a smaller market cap, aligning capabilities with digital strategy and investments can result in considerable market cap differentials (deloitte.com, 2024).

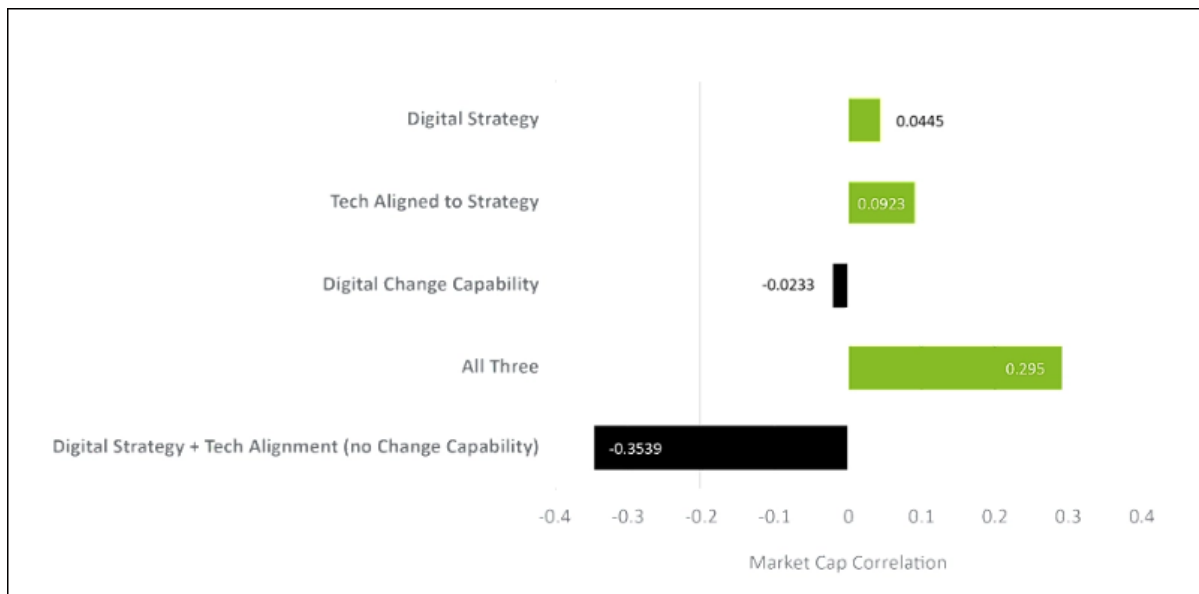


Figure 7: Digital Changes Capabilities
(Source: deloitte.com, 2024)

Scotto *et al.* (2020) have based themselves on this ground to indicate that fashion SMEs in Italy have recently adopted social media platforms for incremental and radical innovations using digital tools aimed at meeting the modern market requirements and, at the same time, closing gap existing between traditional craftsmanship. Conversely, Verma and Rana (2021), on the other hand, argue that IBM is among the prominent firms integrating HR with AI and cloud computing, thereby showing another direction compared to MNCs' SMEs in digitisation. This argument raises questions about how scalable digital solutions are. However, Verma and Rana (2021) also show that while SMEs' digital strategies focus on products and markets, MNCs emphasise digital HR transformation instead. This difference highlights how various business sizes adopt digital transformation in the broadest sense and thus have different strategic orientations. For instance, whereas MNCs concentrate on internal efficiencies and employee involvement, organisations such as Italy's fashion industry prefer more market presence or innovativeness.

Further, the disparity is more acute between SMEs and MNCs, as the latter possess abundant resources that allow them to invest significantly in new technologies and extensive training programs, which are suppressed in SMEs. For instance, according to Dung and Tri (2021), some hindrances small firms encounter during their digital transformation include the finance and human resources required for technological adoption. Moreover, fashion SMEs turn to social media for going digital instead of applying AI HRM techniques such as those employed by MNCs. Therefore, it is not a piece of cake to have firm-specific strategies like personalised services,

notwithstanding many business benefits realised through digitalisation, like increased efficiency or competitiveness.

Reinventing Supply Chains and HR through Digitalization

The discussion on digital transformation of supply chain and HR paints a picture of an automated and efficient world. Nonetheless, the underlying story behind digital recruitment and remote work technologies is that adaptation difficulties and unforeseen consequences accompany them. On the one hand, automation promises to simplify operations in supply chain management while necessitating a highly skilled labour force capable of managing and maintaining complex digitised systems (Aithal, 2023). This requires additional investments in training and development, paradoxically depleting resources in other areas of operation. In addition, using digital technology like AI for recruiting is aimed at making processes more efficient. However, this raises concerns about hiring and algorithm biases, which hinder fair recruitment standards. Remote work technologies offer flexibility and cost-effectiveness, while others deal with shaping them. Thus, workforce management will necessitate a rethink, particularly regarding worker loneliness and the coming private/professional divide (Adamovic *et al.*, 2022). Hence, these problems stress that HR departments must carefully lead their organisations through digital transformation for employees' mental health, considering the organisational culture.

4.2.5 Theme 5: Technology and Innovation Focus in Digital Transformation

Cutting-Edge Technologies Shaping the Future

Zhang *et al.* (2022) have shown that operational efficiency in traditional Chinese firms needs to be digitised. For example, according to Zhang *et al.* (2022), digital transformation enhances efficiency in operations. As a result, when adopted by companies, these systems minimise their operation and create a situation capable of bringing more value to any manufacturing firm's economic well-being (Zhang *et al.*, 2022). However, Pittaway and Montazemi (2020) research on local government contradicts this one, suggesting management capacity building is the best way to deal with digital change complexities. Therefore, this is when planning knowledge is more important than just making decisions via technology.

Abbu *et al.* (2021) state that the grocery business is undergoing a digital makeover by examining Walmart and Amazon Whole Foods. It zooms in on customer-first approaches, such as automated packing, to improve online shopping experiences, resulting in higher operational efficiency and consumer retention. As a result, comprehension of social media improving buyer engagements has

been complimented, besides digital transformation-inspired retail service quality expectations in this paper.

Li (2020), however, looks at iterative techniques of leading digital modification within organisations and draws examples from global digital champions such as Amazon and Alibaba. This highlights that risk mitigation and transition management are today's critical aspects of digital transformation. Digital transformation is a dynamic process that needs continuous innovation, agility, and experimentation to maintain competitive advantage (Ghosh *et al.*, 2022). The estimated amount spent on digital transformation (DX) in 2023 is 2.15 trillion dollars. Global spending on digital transformation is expected to reach 3.9 trillion dollars by 2027 (Sherif, 2024). A general suggestion is that successful change in the new age should involve adopting various technologies and adapting them to the changing digital economy through strategic leadership processes. Thus, these research showed that new technologies are already changing the face of the future in different areas, from production and local self-government to retail. If, in each situation, the applications and obstacles of digitalisation may differ, every company must be innovative, strategic, and flexible. Whether this means improving factory performance rates, optimising management techniques or reimagining how users interact with their products, seamless adoption of digital tools helps businesses operate within an increasingly globalised environment driven by technological innovations.

Fostering a Culture of Continuous Innovation

In contrast with typically suggested direct plans, forging a consistently nurturing atmosphere for innovation and technological adoption takes time and effort. However, after a careful investigation, focusing only on innovation management or research and development (R & D) could help secure a competitive advantage or ensure the successful adoption of new technologies. Initially, everlasting discontent tends to be promoted by the continuous drive for innovation, focusing more on newness than improving and exploiting what already exists. Businesses may engage in an expensive race against time, putting huge investments into R&D with more time for earlier investments to mature and produce physical returns. For example, more than 25 per cent of Westerners use digital assistants daily, with over 161 million units predicted to be sold globally in 2022, smart speakers (stelinmart.com, 2024). This process can overreach budgets and deflect from efforts at optimising ongoing operations and technologies. In addition, the drive to constantly be inventing can cause employees to get tired of innovating and disengage, which could hinder creativity in these projects (Kim and Beehr, 2023). The demand for novel ideas always and the

constant change accompanying them can suffocate, possibly leading to exhaustion and a dip in overall output.

Additionally, always being on the technology frontier might differ from what the market needs. It is dangerous to assume that newer technology means improved customer solutions. This disconnect can result in investments in technologies that could be more appealing to the intended audience, resulting in no competitive advantage or better market positioning. Furthermore, the dynamic and unpredictable growth of technology means that what is considered leading-edge technology today can be obsolete tomorrow. Consequently, such uncertainties make it difficult for companies to plan for innovation and deployment of new technologies strategically. This might result in squandering valuable resources on non-durable or not widely applicable technology. Agustian *et al.* (2023) indicate that the modern global competitive edge is about continuous renewal and adaptation to the latest technology. However, developing this climate would be a daunting and dangerous task. Firms must grapple with these issues cautiously to avoid killing inventiveness on the one hand, but strategic focus, employee satisfaction, and market orientation on the other.

4.3 Summary

The chapter critically evaluates the empirical papers associated with the emergence of digital transformation on a significant basis. Companies such as Lenovo, Samsung, and Amazon are pioneers in implementing new technologies and integrating AI into their consumer services. The chapter has critically articulated such factors, further supported by company reports and various sources.

Chapter 5 Conclusion & Recommendation

5.1 Conclusion

This research paper primarily examines how digitalisation has impacted global operational dynamics and the competitive position of MNCs. E-technologies are used in all sectors today. Technological innovations should change traditional business models and strategies. This implies embracing digital transformation in international business to enhance competitiveness and expand further.

The literature review examined existing theories and empirical findings, which showed that digital transformation is multi-dimensional and has significant implications for MNCs. Some of the issues discussed include the theoretical basis of digital transformation, organisational culture as a driving

force for change, and technology innovation management from a strategic point of view. The themes of physical-digital convergence and leadership in guiding digital initiatives were also explored through this review.

Methodologically, secondary data was used in this research, which adopted a qualitative approach to interrogating the intricacies surrounding digital transformations. Synthesising ideas from different academic works, such as industry reports and case studies from around the world, some insights emerged on how MNCs operate online.

The methodology chapter employed a qualitative design using secondary sources to unearth details about digitisation processes. With thematic analysis, interpretations were made after integrating many scholarly articles, industrial reports, and case studies that gave insights into how MNCs deal with changing times.

Digital transformation is connected to international corporate strategy, which this study defined. Consequently, MNCs are urged to view digital-led innovation as an integrated process rather than just concentrating on technology and consider culture change, leadership styles, and strategic fit as new terrains of organisations at all levels. The paper shows how business has gone global through technology with the help of references from research papers, articles, textbooks, manuals, journals, magazines and newspapers.

5.2 Linking with Objectives

The last three chapters show that this research's initial goals have been achieved, and each chapter presents distinct points of view on digital transformation in multinational corporations.

To that end, Chapter 2, the literature review, explicitly addressed the first objective. It examined the effect of digital transformation on strategy implementation in MNCs and provided an overview of strategic implications for digital technologies based on extensive theoretical frameworks and empirical research. This chapter thus focused its attention on global business models and operations to appraise digital transformation, thereby achieving the second objective. For instance, it gave examples from different literature that could illustrate how such technological changes had influenced organisational structures and systems.

Chapter 3 successfully achieved the third purpose of this research with its study of cases. The chapter provides real-life examples of this happening in firms, which are practical lessons on combining global strategies with digital transformation. This is demonstrated in various ways; thus, these instances were practical evidence for the debate in Chapter Two about the digital transformation mentioned above.

Furthermore, chapter 3 achieved the fourth objective: addressing the cyber integration challenges experienced by multinational companies as they try to integrate digitisation into their global strategies. The paper thus provides an overview of digitalisation concerns, points out traditional barriers, and proposes remedies.

Chapter 4 provides a detailed examination of current patterns and prospects concerning digital transformation in international business. It captures emerging elements that will define future changes in digital terms, as also from the review of the literature and case study chapter; thus, it is an anticipatory chapter. Therefore, this section makes some prognostications concerning future industry developments for gauging digital revolution modifications.

Finally, chapters two to four follow a logical sequence of study goals that delve into digitisation's different ramifications on multinational corporations (MNCs) in various dimensions by putting together concepts, facts, and an outlook.

5.3 Recommendations

The investigation indicates that their global business strategy should include this automated technology. Accepting innovation alone is not enough; one also needs to think about how it can affect the association's operations, mission, and situation. This strategy should consider its broader implications on tasks, market positioning, hierarchical culture, and its focus on mechanical reception. MNCs ought to put resources into long-haul learning and set up drives that encourage an affiliation-wide culture of PC capability (Intaratat, 2021). The objective is to defeat snags in embracing new turns of events and consistently coordinate into advanced networks.

Thus, global organisations must capably adjust their high-level change plans to adjust to the intricacy and variety of land financial areas (Hanelt *et al.*, 2021). Worldwide organisations (MNCs) should embrace adaptable methodologies in their modernised change drives because of the intricacy and variety of land business areas. One such methodology is to zero in on neighbourhood financial circumstances, such as regulatory settings, which should have been apparent when finished to expand the viability and efficiency of cutting-edge systems. Besides, action should incorporate a steady turn of events (Brockova *et al.*, 2021). This will help these businesses maintain the creative cultures needed to stay up with emerging trends in innovation and, ultimately, maintain their competitive edge in the ever-evolving Web landscape. In this case, investing in new technical advancements and creating a company culture encourage risk-taking and prompt decision-making.

5.4 Research Limitations

Regardless, this exploration has a few imperatives that should be noticed. First, various secondary data forms and types of limits what could be learned from personal experience about MNCs' digital transformation. In addition, the lack of primary research means that it would not be possible to generate new empirical findings or investigate specific aspects of the global challenges faced by different multinational organisations in their strategies. Besides, narrowing down to works published within the last ten years alone may neglect any possible future implications for international corporate strategy due to digitisation. Future studies should consider including primary sources in their data and broadening their coverage of changes occurring in the digital sphere with time.

5.5 Practical Implications

Multinational businesses (MNCs) may benefit greatly from this study since it provides practical ideas for incorporating digital transformation into several areas of international business. Adapting strategically to digitization should be a top priority for multinational corporations. To make use of digital capabilities, they must not only embrace new technology but also reevaluate existing business strategies. Examples of essential actions include using data analytics to get consumer insights and AI to increase operational efficiency. Using data and technology to inform choices is essential to this approach, necessitating moving away from more conventional ways. MNCs should embrace the possibilities given by digital platforms to improve their competitive positioning and market dynamics. Some examples of this strategy include looking into online marketplaces, advertising on social media, and doing market research using digital technologies (Ram Raj Thumiki and Jurcic, 2021). Multinational corporations (MNCs) may interact with customers in more diversified global marketplaces and increase their market reach using these platforms. Organizational transformation is an additional crucial domain. Global corporations should strive to establish organizational structures that are both agile and adaptable, allowing them to adjust to evolving digital environments swiftly. One way to achieve this goal is to encourage creativity and flexibility among employees and reduce the prevalence of formal hierarchies. Leadership is critical; executives must promote a digital-first mentality and spearhead digital projects. Multinational corporations (MNCs) must balance innovation and risk management to embrace new technologies, particularly in sensitive areas like data privacy and cybersecurity. One way to lessen the impact of digital transformation risks is to put money into a safe digital infrastructure and provide ongoing data security training for employees. Multinational corporations should tailor

their digital strategy to local markets, laws, and cultures to tackle global issues. To achieve this goal, it is necessary to research and adhere to local rules and modify digital products to suit the demands of individual markets. Multinational corporations may acquire a competitive advantage in the global marketplace by adopting these tactics, which will help them successfully traverse the challenges posed by digital transformation and make the most of its advantages.

5.6 Future Scope

To initiate future research, the first thing will be to engage with multinational corporations (MNCs) to obtain firsthand accounts of digital transformation challenges and strategies. More insight is still needed on how different sectors within MNCs respond to the emergence of digital technology, so sector-specific inquiries are necessary. Furthermore, it might be time to rethink using new technologies like blockchain and quantum computing to reconstruct global business approaches. Further, looking at how digitalisation is changing communities across multiple continents, such as developed nations or poor countries, would provide a better understanding of what global digitisation means for MNCs' operational and strategic frameworks.

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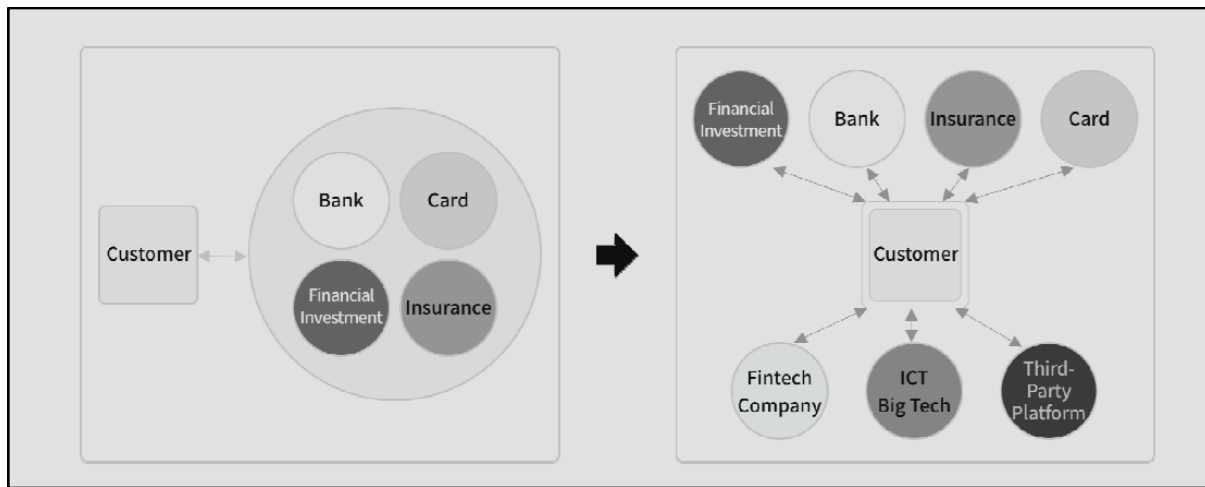
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Appendices

Appendix 1: Changes in Financial Services Due to Digital Transformation



(Source: Kim *et al.*, 2024)

Appendix 2: Qualitative Research Methodology



(Source: Self-Developed)

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: Abhishek Goyani

Date: 02/05/2024

STATEMENT 1

This work is the result of my own investigations, except where otherwise stated.

Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed: Abhishek Goyani

Date: 02/05/2024

STATEMENT 2

I hereby give consent for my work, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed: Abhishek Goyani

Date: 02/05/2024