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The Impact of Fintech on SMEs in Dublin

MSc Research Project
M.Sc. Fintech

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The Impact of Fintech on SMEs in Dublin

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Abstract

Since its creation in 1838, Fintech has given a huge boost to business, both on a small and medium scale. Especially in recent years, FinTech's innovations has developed rapidly, which has had a multifaceted impact around the world. On the other hand, SMEs are the backbone of the Irish economy: they account for most of all business in Ireland, Dublin. They also make a substantial contribution to the country's economy, as they hire a significant proportion of the national workforce. But technological adoption remains a significant challenge for many these businesses. In areas such as fintech, where there's significant potential for SMES to streamline processes, reduce human error, and increase margins, failing to adopt new solutions could be particularly problematic. For a long time, the cost of technology stratified the business world into the digital haves and haves-not. Many SMEs simply haven't had access to the rich ecosystem of apps and services available to banks and other large organizations. Complexity, cost, and lack of awareness have prevented them from enjoying the benefits of many FinTech's innovations. Today, SMEs can benefit from flourishing financial technology marketplace. This paper is going to study how Fintech innovations influence small and medium-sized enterprises, particularly in Dublin.

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Dedication

This work is dedicated to my parents, for their unconditional love, sacrifices, and constant support throughout my educational journey. To my friends and loved ones who believed in me, even during the most challenging times—this accomplishment is as much yours as it is mine.

1 CHAPTER 1: INTRODUCTION

1.1 Background of the Research

The rapid evolution of financial technology has significantly transformed the global financial landscape, offering innovative solutions and services that have revolutionized traditional banking and financial systems (Varghese 2018). In recent years, the emergence of fintech has had a particular impact on Small and Medium-sized Enterprises (SMEs), especially in urban centers like Dublin, Ireland. As emphasized by Cho (2022), this city, known for its vibrant startup ecosystem and dynamic economy, has become a hub for fintech innovations, providing a fertile ground for SMEs to thrive and expand. SMEs are key to Dublin's economic recovery, contributing greatly to job creation, innovation, and overall economic growth (OECD 2018).

Fintech has facilitated the digital transformation of SMEs, allowing them to adopt new technologies that enhance their operational efficiency and customer engagement (Pizzi et al. 2021). Digital payment solutions, for instance, have enabled SMEs to expand their customer base by offering convenient and secure payment options, both online and offline. This shift towards digitalization has not only improved the financial inclusion of SMEs but also increased their competitiveness in the market. In Dublin, where the economy is increasingly driven by technology and innovation, the integration of fintech solutions has become a crucial factor for SMEs seeking to remain relevant and competitive (Moran 2020). As SMEs become increasingly dependent on data and analytics to make informed business decisions, fintech has played a pivotal role in providing them with these tools. Through fintech platforms, SMEs can leverage data analytics to gain insights into market trends, customer preferences, and financial performance. This data-driven approach enables businesses to tailor their strategies, optimize their operations, and mitigate risks, thereby enhancing their overall resilience and profitability. In Dublin's fast-paced business environment, the ability to make data-informed decisions is a key advantage for SMEs striving to achieve long-term success.

Traditionally, SMEs have faced numerous challenges in securing funding and financial services due to their limited credit history, lack of collateral, and perceived high risk by conventional financial institutions (Martinez-Cillero et al. 2020). However, as Beck (2020) underscored, the advent of fintech has provided new opportunities for these businesses, enabling them to access a broader range of financial services more efficiently and at a lower cost. Fintech innovations such as peer-to-peer lending, crowdfunding platforms, digital payment systems, and blockchain technology have disrupted traditional financial models, offered alternative financing options and streamlined processes (Liu 2021). This has been particularly beneficial for SMEs in Dublin, which often operate in competitive markets and require agile financial solutions to support their growth and sustainability.

As underscored by Afjal (2023), the impact of fintech on SMEs in Dublin is not without challenges. Issues such as regulatory compliance, cybersecurity risks, and the digital divide pose significant barriers to the full adoption of fintech solutions. However, the benefits of

fintech—such as increased access to capital, improved financial management, and enhanced customer experiences—outweigh these challenges, making fintech an indispensable tool for the growth and development of SMEs in Dublin (Kabulova, 2023).

1.2 Problem Statement

Finance technology (fintech) has significantly altered traditional banking and financial services because of its rapid proliferation (Murinde et al., 2022). This transformation is particularly relevant for small and medium-sized enterprises (SMEs), which often face substantial challenges in accessing finance and managing their operations. Despite the apparent benefits, there still needs to be a greater understanding of the precise impact of fintech on these businesses, particularly regarding their access to finance, operational efficiency, and market competitiveness. Existing literature has highlighted the challenges SMEs face in securing funding through traditional means due to limited credit histories, lack of collateral, and perceived high risk (Kumar et al. 2022). Fintech solutions, such as peer-to-peer lending, crowdfunding, and digital payment systems, have been shown to offer alternative financing options, potentially alleviating some of these barriers (Agarwal and Zhang 2020). Equally, fintech has enabled SMEs to adopt new technologies that enhance operational efficiency, customer engagement, and data-driven decision-making (Chen et al., 2019). However, the extent to which these advantages translate into tangible benefits for SMEs in Dublin, specifically in terms of business growth, market competitiveness, and financial stability, remains underexplored.

This research will address the gap in understanding by examining the specific impacts of fintech on SMEs in Dublin. While it is recognized that fintech can provide improved access to finance and operational tools, the research will delve deeper into how these technological advancements influence SMEs' strategic decisions, resilience to market fluctuations, and ability to compete in an increasingly digital economy. It will also consider potential challenges, such as regulatory hurdles, cybersecurity risks, and the digital divide, which may impede the full adoption of fintech solutions. The relevance of this research lies in its potential to provide insights into how fintech can be effectively leveraged to support the growth and sustainability of SMEs in Dublin. As SMEs are critical to the economy, contributing significantly to employment and innovation, understanding how they can better access and utilize fintech solutions is essential for policymakers, financial institutions, and the businesses themselves. By identifying the benefits and challenges associated with fintech adoption, this research aims to inform strategies that can enhance the financial inclusion and competitiveness of SMEs, ultimately fostering a more resilient and dynamic business environment in Dublin (Collura et al. 2007).

1.3 Research Questions, Aim and Objectives

1.3.1 Aim

This academic study seeks to thoroughly explore the impact of Fintech’s on small and medium-sized businesses in Ireland, with a focus on business practices and ethical aspects.

1.3.2 Objectives

The specific objectives of this study are as follows.

1. To evaluate the efficacy of fintech solutions in addressing traditional financial challenges faced by SMEs in Dublin, with a particular focus on access to finance, payment processing, and risk management.

2. To identify and assess the key determinants of fintech adoption among SMEs in Dublin, including perceived benefits, barriers to adoption, and the influence of the regulatory and support environment.

3. To quantify the overall economic impact of fintech on the Dublin SME sector, examining its contribution to business growth, job creation, and enhanced competitiveness.

1.3.3 Questions

Based on the aim and objectives of the study, the research questions are as follows:

1. How effective are fintech solutions in addressing traditional financial challenges faced by SMEs in Dublin, particularly in terms of access to finance, payment processing, and risk management?

2. How does the impact of fintech vary across different SME sectors within the Dublin economy, and what are the sector-specific patterns in fintech adoption, benefits, and challenges?

3. What are the key determinants of fintech adoption among SMEs in Dublin, including perceived benefits, barriers to adoption, and the influence of the regulatory and support environment?

4. What is the overall economic impact of fintech on the Dublin SME sector, particularly in terms of business growth, job creation, and enhanced competitiveness?

1.4 Research Significance

This research is significant because it has the potential to illuminate the transformative effects of fintech on Small and Medium-Sized Enterprises (SMEs) in Dublin. By systematically evaluating fintech's role in overcoming traditional financial barriers, assessing sector-specific impacts, and identifying determinants of adoption, this study offers valuable insights for policymakers, financial institutions, and SMEs. The study would equally address a significant gap in the existing literature by providing an in-depth analysis of how fintech solutions are transforming the traditional financial challenges faced by SMEs (Shokrani 2018). This includes issues related to access to finance, payment processing, and risk management, which are often cited as major barriers to growth and sustainability for these businesses. By evaluating the effectiveness of fintech in these areas, the research will offer a nuanced understanding of the practical benefits and limitations of these technologies. Hence, it would contribute to the broader understanding of how fintech can enhance business growth, competitiveness, and economic development.

1.5 Research Methodology

This study on the impact of fintech on Small and Medium-Sized Enterprises (SMEs) in Dublin employs a mixed-methods approach to explore the effects of financial technology on these businesses comprehensively. The methodology integrates both qualitative and quantitative techniques to provide a nuanced understanding of fintech adoption, its benefits, and the challenges faced by SMEs.

The qualitative phase will involve conducting in-depth interviews with key stakeholders, including SME owners, fintech providers, and industry experts. This approach aims to

capture detailed insights into the experiences and perspectives of these stakeholders regarding the integration of fintech solutions within SMEs. The interviews will be guided by a set of open-ended questions designed to explore participants' views on fintech adoption, its impact on business operations, and the specific benefits and challenges encountered. The qualitative data will be analyzed using thematic analysis, where interview transcripts will be systematically coded and organized into themes and sub-themes. This analysis will reveal patterns and key insights related to fintech integration and its influence on SMEs in Dublin (Braun and Clarke, 2006).

The quantitative phase will involve distributing a structured survey questionnaire to a diverse sample of SMEs in Dublin. The survey will collect data on fintech adoption practices, financial performance, and stakeholder perceptions. The questionnaire will be administered online and will include validated scales to measure aspects such as fintech utilization, business growth, and operational efficiency (Linton et al., 2007). Quantitative data will be analyzed using descriptive statistics, correlation analysis, and regression analysis to examine the relationships between fintech adoption and various business outcomes, including financial performance and market competitiveness

2 CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The advent and evolution of the World Wide Web (WWW) have seen responsive integration into key sectors, like government, education, and commerce, giving rise to concepts such as e-commerce, e-government, e-health, and information systems. (Chen et al. 2017). In the same light, Tzortzaki and Mihiotis (2014) underscored that theories such as knowledge management have received broad consideration in the big spectrum of business research. Various social science theories, including social capital theory, have supported these theories (Chiu et al. 2006). It is therefore not surprising that even in the financial and business sector, it has contributed decisively, bringing it to the fore for its relevance in society, as well as in the daily lives of people all over the world.

Although Financial Technology, known as FinTech, is not a new concept, it has proven over time to be a formidable link between the financial industry, information technology (IT), and innovation (Boot et al. 2021). It is argued that due to the rise and latest evolution of FinTech, a new era is dawning; FinTech has transformed financial markets globally (Alam et al. 2019). As stated by Shrier and Pentland (2020), FinTech is an “umbrella term” that encompasses innovative financial solutions, start-ups providing those solutions, and traditional financial service providers. Fintech represents a disruptive technology as it not only threatens the existing structure of financial service providers by offering similar services but also creates opportunities for the exploration of new technology (Clarke 2019). Likewise, small and medium enterprises (SMEs) prominently act as a driving force in nation-building in almost all economies worldwide, especially in developing and emerging markets, considering their contribution to social and economic development.

2.2 Historical Context and Evolution of Fintech

Recent decades have seen a meteoric rise in the concept of FinTech, a neologism encompassing finance and technology. Hoang et al. (2022) believe that Fintech, commerce, and technology have been interconnected and mutually reinforcing from the earliest stage of human development. The advent of finance began in the state administrative systems that

were integral for the transition from hunter-gatherer groups to stable agricultural states. Hence, the process of financial development alongside written documentation mutually reinforces each other as one of the earliest forms of information technology, highlighting the link between finance and technology. As stated by McGroarty and Farai (2011), money is a technology that depicts the transferable value of a thing, which typically characterizes a modern economy. The emergence of early computing technologies, which started with Abacus, has greatly facilitated financial transactions (Jayasuriya and Sims, 2023). This evolutionary development can be seen from commercial perspectives, as finance keeps evolving from the early stage to sustain trade and sustain the production of commodities for trade.

More (2020) believed that many historians today approve of the view that the financial revolution took place in Europe in the late 1600s, and this involved joint-stock companies, insurance, and banking, all fundamentally based on double-entry bookkeeping. Hence, finance and access to capital supported the development of technologies and industrial development (Singh 2019). Therefore, the relationship between finance and technology is referred to as long-standing, having a development trajectory that sets the stage for the modern period (Sachs 2019). McAfee (2019) indicated that the increasing speed of development over the past hundreds of years is surprising compared to previous periods. Its genesis can be traced to the mid-20th century with the advent of Electronic Funds Transfer (EFT) and Automated Teller Machines (ATMs). However, Lo (2021) argues that the true inflexion point arrived in the 1990s with the dot-com boom, which laid the groundwork for online banking and brokerage. The subsequent years witnessed a cascade of fintech innovations, including peer-to-peer lending, mobile payments, and cryptocurrency. This sector has witnessed a fair share of milestones, including the launch of PayPal in 1998, the Bitcoin whitepaper in 2008, and the proliferation of smartphones, which accelerated the evolution of FinTech.

The Irish landscape has been particularly receptive to Fintech, with Dublin emerging as a European hub. The country's robust tech ecosystem, coupled with government initiatives, has fostered a conducive environment for fintech startups (Cannon and Dart, 2023). Ireland's early adoption of digital technologies and a strong emphasis on financial services have strongly accelerated the integration of fintech solutions into the fabric of the economy. Now, Irish SMEs have been at the forefront of fintech adoption, leveraging these tools to enhance efficiency, access financing, and improve customer engagement. While the early stages of fintech adoption primarily focused on consumer-facing services, the sector has matured to encompass a broader spectrum of solutions for businesses (Shayb, 2023). The Dublin fintech ecosystem has expanded to include a diverse range of offerings, from payment processing and lending to insurance and wealth management. Chen (2024) studied that as the industry continues to evolve, the interplay between fintech and SMEs is likely to deepen, with the potential to reshape the business landscape and drive economic growth.

2.3 Sector-Specific Impact of Fintech on SMEs

2.3.1 Retail Sector

The retail sector, which is characterized by its competitive landscape and thin profit margins, has undergone a profound and critical transformation due to the integration of fintech (Huang, 2021). This convergence has introduced a myriad of opportunities for Small and Medium-sized Enterprises (SMEs) to enhance their operations, improve customer experience, and bolster competitiveness. A prime example is the proliferation of mobile payment solutions, which has enabled retailers to expedite transactions, reduce operational costs, and

expand their customer base. Fintech-driven data analytics has equally empowered retailers to gain valuable insights into consumer behaviours, optimizing inventory management, pricing strategies, and marketing campaigns. For instance, a study by Dekimpe (2020) found that retailers leveraging data analytics experienced a 12% increase in revenue in 2020.

2.3.2 Manufacturing Sector

As stated by Vijayachandran (2023), the concept of the streamlined financial process, improved supply chain visibility, and easy access to capital have been largely introduced to the manufacturing sector in Dublin due to the proliferation of Fintech. Fintech has emerged as a catalyst for growth and efficiency among manufacturing SMEs. For instance, the integration of blockchain technology has the potential to revolutionize supply chain management by ensuring transparency, traceability, and security. Companies like Walmart have successfully implemented blockchain to track food products from farm to shelf, improving product safety and reducing fraud (Xu et al., 2020). Fintech-powered solutions have enhanced cash flow management for manufacturing SMEs. Tools like invoice factoring and supply chain finance have provided businesses with access to much-needed working capital, enabling them to invest in growth initiatives. Dillon (2020) argues that SMEs that adopted fintech solutions experienced an average increase of 15% in cash flow. Notably, predictive analytics powered by fintech can optimize production planning, inventory management, and resource allocation, leading to cost reduction and increased profitability (Li and Wang, 2022). However, the sector's reliance on legacy systems and a culture of risk aversion can hinder the integration of new technologies (Rodríguez-Espíndola et al., 2022).

2.3.3 Service Sector

Dublin has established itself as a European fintech hub, and the service sector, a cornerstone of the Irish economy, has been significantly influenced by these developments. The service sector, as stated by Schönsleben (2019), is highly characterized by its intangible offerings. This sector, encompassing a wide range of businesses, from consulting to hospitality, has benefited immensely from fintech-driven innovations. For instance, payment solutions have become more streamlined and efficient, allowing service-based SMEs to accept various payment methods, including digital wallets and contactless payments (Patel and Satapathy, 2023). This has led to increased customer satisfaction and expanded market reach. Fintech has facilitated the growth of the gig economy in Dublin by providing platforms for service providers to connect with customers efficiently (Ilsøe et al., 2022). Companies like Taxify (now Bolt), a ride-hailing service, have disrupted the traditional taxi industry, empowering a new generation of entrepreneurs.

2.3.4 Technology Startups

Nejad (2022) believes that fintech solutions have provided a fertile ground for innovation, enabling startups to develop novel products and services. For instance, the availability of crowdfunding platforms has facilitated capital raising, allowing entrepreneurs to secure funding for their ventures without relying solely on traditional investors. Companies like Revolut, a fintech startup that originated in Dublin, have successfully leveraged crowdfunding to expand their operations and reach a global audience (Lynn and Rosati, 2021). Fintech has streamlined financial operations for technology startups, enabling them to focus on core competencies. Cloud-based accounting software, digital payment, and expense management tools have simplified administrative tasks, freeing up resources for product development and market expansion. The emergence of fintech-powered data analytics platforms has empowered startups to gain valuable insights into customer behavior, allowing them to make data-driven decisions and optimize their offerings (Erum et al., 2021). FinTech

has supported the growth of the startup support infrastructure, with accelerators and incubators leveraging fintech tools to manage their portfolios and provide financial services to their startups (Hendrikse et al., 2020).

2.4 Fintech Solutions and Their Benefits for SME

2.4.1 Peer-to-Peer Lending and Crowdfunding

Rivera Nieblas (2022) underscores that access to capital is a critical factor influencing the growth and sustainability of Small and Medium-Sized Enterprises (SMEs). Fintech innovations have significantly improved capital accessibility for Dublin-based SMEs, fostering economic growth and job creation. Traditional lending channels often present barriers for SMEs, such as stringent eligibility criteria and lengthy approval processes (Zohra Aney, 2021). Peer-to-peer lending and crowdfunding platforms have disrupted traditional lending models, providing SMEs with greater access to capital and fostering innovation within the Dublin business landscape (Lynn and Rosati, 2021). P2P lending connects borrowers and lenders directly, bypassing traditional financial intermediaries. That has been particularly beneficial for SMEs that struggle to secure loans from banks due to stringent requirements or limited collateral. Santos (2024) underscored that by leveraging P2P platforms, Dublin-based SMEs can obtain financing for various purposes, including business expansion, equipment purchase, and working capital management.

Crowdfunding, on the other hand, offers SMEs a platform to raise funds from a large pool of investors (Troise et al., 2023). This model has been particularly effective for startups and early-stage businesses seeking capital to develop new products or services. Cannon and Dart (2023) believe that Dublin has witnessed a surge in crowdfunding campaigns across various actors, from technology to creative industries. Platforms like Kickstarter and Inddiegogo have enabled Irish SMEs to connect with a global audience and audience and secure funding for their project. A notable example is the success of Dublin-based startup Blendle, which raised significant sums through crowdfunding to expand its digital news platform.

The impact of P2P lending and crowdfunding on Dublin's SME ecosystem extends beyond access to finance (Lynn and Rosati, 2021). Hesse and Rafferty (2020) opined that these platforms have fostered a culture of entrepreneurship and innovation by empowering SMEs to take risks and pursue growth opportunities. They have contributed to the development of a vibrant fintech ecosystem in Dublin, attracting investors and talent to the city.

2.4.2 Digital Payment Systems and E-Wallets

As underscored by Alam et al. (2021), digital payment systems and e-wallets have revolutionized the way businesses operate, particularly for SMEs. In Dublin, the adoption of these fintech solutions has been rapid and widespread, transforming the city into a cashless society. E-wallets, in particular, have become ubiquitous, offering convenient and secure payment options for both consumers and businesses. Lee and Lee (2020) believed that by eliminating the need for physical cash, these systems enhance efficiency, reduce operational costs, and improve customer experience. E-commerce platforms have flourished due to the availability of secure and reliable payment options (Jain et al., 2021). This has created opportunities for SMEs to expand their customer base beyond physical stores. These systems have contributed to financial inclusion that was previously undeserved. For instance, mobile payment services have enabled people without traditional bank accounts to make and receive payments. The impact of payment systems and e-wallets on the Dublin economy is substantial. Chen et al. (2021) revealed that increased use of digital payment correlates with economic growth and job creation. With the reduction of the cost associated with cash

handling and fraud, businesses can invest more in innovation and expansion (Khalatur et al., 2022). These systems have contributed to Dublin's reputation as a technology-forward city, attracting investment and talent to the region.

2.4.3 Blockchain and Cryptocurrency

Anastasiou (2023) posits that blockchain and cryptocurrency, while still nascent technologies are rapidly reshaping the financial landscape and offering unprecedented opportunities for Small and Medium-sized Enterprises (SMEs) in Dublin. Blockchain, as a distributed ledger technology, provides a secure and transparent platform for recording transactions, enhancing trust, and reducing operational costs (André et al., 2021). For SMEs, this can translate to improved supply chain management, efficient contract management, and enhanced data security. Khatoon (2020) believes that blockchain-based smart contracts can automate processes, reducing administrative burdens and increasing efficiency. Cryptocurrency, as a digital currency secured by cryptography, offers SMEs alternative payment methods, reduced transaction fees, and potential access to new markets (Mikhaylov, 2020). While the volatility of cryptocurrencies might pose challenges, their potential benefits are significant. For instance, cross-border transactions can be processed more efficiently and at lower costs, making it easier for Dublin SMEs to engage in international trade (Lawless, 2021). Marthinsen and Gordon (2022) underscored that cryptocurrency can serve as a hedge against inflation and currency fluctuations, providing additional financial flexibility.

2.4.4 Data Analytics and Artificial Intelligence

Data analytics and artificial intelligence (AI) have emerged as powerful tools for businesses of all sizes. SMEs in Dublin are increasingly leveraging these technologies to drive growth and efficiency (Bukartaite and Hooper, 2023). Cadden et al. (2023) reveal that by harnessing the power of data, SMEs can gain valuable insights into customer behavior, market trends, and operational performance. For instance, retailers can analyze customer purchasing patterns to optimize inventory management and personalize marketing campaigns. This data-driven approach can lead to significant cost reductions and increased revenue (Grandhi et al., 2021). To a large extent, AI is revolutionizing the way SMEs operate by automating routine tasks, improving decision-making, and enhancing customer service. Chatbots powered by AI can handle customer inquiries efficiently, freeing up human resources to focus on complex issues (Rahmani and Kamberaj, 2021). Predictive analytics can help SMEs forecast demand, optimize pricing, and prevent stockouts.

Soldatos and Kyriazis (2022) stated that the integration of data analytics and AI is also transforming the financial sector, benefiting SMEs in Dublin. Hence, fintech companies are utilizing these technologies to develop innovative financial products and services tailored to the specific needs of SMEs. For instance, AI-powered credit scoring models can more accurately assess the creditworthiness of small businesses, improving access to financing (Adeoye et al., 2024). Data analytics can help SMEs identify new market opportunities and optimize their marketing campaigns.

2.5 Determinants of Fintech Adoption Among SMEs

2.5.1 Perceived Benefits

The adoption of fintech solutions by Small and Medium-sized Enterprises (SMEs) in Dublin is significantly influenced by the perceived benefits these technologies offer. A comprehensive understanding of the factors influencing this perception is crucial for

policymakers, fintech providers, and SMEs themselves (Thomas, 2023). SMEs are more likely to adopt fintech solutions when they believe these technologies can enhance efficiency, reduce costs, and improve customer satisfaction (Abbasi et al., 2021). For instance, the widespread adoption of mobile payment systems in Dublin can be attributed to the perceived convenience and security benefits for both businesses and consumers. SMEs operating in a volatile economic environment are particularly drawn to fintech tools that can help them manage financial uncertainties (Ololade, 2024). For example, the increasing popularity of invoice factoring among Dublin SMEs is driven by the need for immediate cash flow and reduced credit risk. As revealed by Bhutto et al. (2023), the perception of fintech as a tool for innovation and competitive advantage plays a crucial role in adoption decisions. SMEs that view fintech as a catalyst for growth and differentiation are more likely to invest in these technologies.

However, the perceived benefits of fintech solutions can vary across different SME sectors and sizes (Moreira-Santos, 2022). While some SMEs may prioritize cost reduction, others may focus on improving customer experience. Therefore, fintech providers must tailor their offerings to meet the specific needs and preferences of different target segments. As Shuhaiber et al. (2023) observed, the perception of fintech benefits can be influenced by factors such as digital literacy, trust in technology, and regulatory environment.

2.5.2 Barriers to Adoption

In terms of the level of adoption by SMEs, Fintech solutions in Dublin are not without their challenges. As identified by Nazir and Roomi (2020), a range of barriers, including financial constraints, lack of knowledge, and regulatory hurdles, can significantly impede the uptake of these technologies. One of the most significant barriers to fintech adoption is the initial cost of implementation (Moreira-Santos et al., 2022). SMEs often operate on tight budgets and may find it challenging to invest in new technology. The purchase of hardware, software, and the necessary training can be a substantial outlay. Also, ongoing maintenance and updates can incur further expenses. For example, cloud-based accounting software, while offering numerous benefits, requires a subscription fee, which may be prohibitive for some SMEs (Byrne et al., 2021).

Another critical barrier to fintech adoption is the lack of knowledge and digital literacy among SME owners and employees. Many SMEs lack the technical expertise to evaluate, implement, and utilize fintech solutions effectively (Moreira-Santos et al., 2022). This digital divide can hinder the adoption of complex technologies such as artificial intelligence and blockchain. Also, Ali et al. (2024) pointed out that the fear of cybercrime and data breaches can deter SMEs from adopting fintech solutions that involve handling sensitive financial information. Regulatory uncertainty can also hamper fintech adoption. SMEs operating in a complex regulatory environment may face challenges in complying with new rules and regulations governing fintech services. The ambiguity surrounding data privacy, consumer protection, and licensing requirements can create a climate of uncertainty and discourage innovation (Niebel, 2021). For instance, the evolving regulatory landscape for cryptocurrency has made it difficult for some SMEs to embrace this technology fully. Addressing these barriers requires a multi-faceted approach. Governments can play a crucial role by providing financial incentives, investing in digital literacy programs, and creating a supportive regulatory environment (Lee, 2019). Fintech providers can offer affordable pricing plans, comprehensive training, and excellent customer support. SMEs themselves can prioritize digital skills development and collaborate with other businesses to share knowledge and resources.

2.5.3 Regulatory Environment and Government Support

The regulatory environment and government support play pivotal roles in shaping the adoption of fintech solutions by Small and Medium-sized Enterprises (SMEs) in Dublin. A conducive regulatory framework can foster innovation, protect consumers, and encourage investment in the fintech sector. Conversely, overly restrictive regulations can stifle growth and hinder the adoption of new technologies. Ireland has made significant strides in creating a favorable regulatory environment for fintech. The country's commitment to innovation and its position as a European technology hub has attracted fintech companies and encouraged their growth. Initiatives such as the Financial Services Regulatory Authority's (FSRA) innovation hub have provided a platform for fintech firms to engage with regulators and test new products and services. This collaborative approach has fostered a culture of experimentation and accelerated fintech adoption among SMEs. Government support is equally crucial in driving fintech adoption. By providing financial incentives, grants, and tax breaks, governments can encourage SMEs to invest in fintech solutions. Dublin has benefited from government initiatives aimed at supporting the technology sector, including funding for research and development and programs to enhance digital skills. These measures have created a conducive environment for fintech innovation and adoption.

2.5.4 Influence of Market Competition and Customer Demand

Market competition and customer demand are two primary forces driving the adoption of fintech solutions among Small and Medium-sized Enterprises (SMEs) in Dublin. The intense competitive landscape necessitates SMEs to adopt innovative technologies to remain relevant and gain a competitive edge. Fintech solutions offer a range of tools and platforms that can enhance efficiency, improve customer experience, and reduce costs, thereby enabling SMEs to compete effectively. The increasing pressure to deliver exceptional customer experiences has compelled SMEs to invest in fintech solutions. Customers today expect seamless, personalized, and convenient interactions with businesses. Fintech technologies, such as mobile payments, Customer Relationship Management (CRM) software, and data analytics, empower SMEs to meet these expectations. For instance, the widespread adoption of mobile payment systems in Dublin has been driven by customer demand for faster and more secure payment options. The emergence of fintech disruptors has accelerated the adoption of these solutions among established SMEs. New entrants with innovative business models and technology-driven offerings have forced incumbents to adapt or risk losing market share. To remain competitive, traditional SMEs have been compelled to adopt fintech solutions to enhance their operations and customer engagement. For example, the rise of online lending platforms has prompted traditional banks to develop digital lending products to retain customers.

2.6 Challenges and Risks Associated with Fintech Integration

2.6.1 Cybersecurity and Data Privacy Concerns

Suryono et al. (2020) identified that cybersecurity and data privacy concerns have emerged as significant obstacles to the widespread adoption of fintech solutions among Small and Medium-sized Enterprises (SMEs) in Dublin. The increasing reliance on digital technologies for financial transactions exposes businesses to a range of cyber threats, including data breaches, fraud, and ransomware attacks (Thakur, 2024). These risks can have severe financial and reputational consequences for SMEs. The collection and processing of sensitive customer data is an inherent part of many fintech services, making data privacy a paramount

concern. With stringent data protection regulations such as the General Data Protection Regulation (GDPR) in place, SMEs must comply with complex compliance requirements to protect customer information (Pedroso et al., 2021). Failure to adhere to these regulations can result in hefty fines and damage to the brand's reputation.

Hussain et al. (2020) also believe that the complexity of cybersecurity threats has increased significantly in recent years. Cybercriminals are becoming increasingly sophisticated, targeting SMEs with targeted attacks and employing advanced techniques. These threats can overwhelm the limited cybersecurity resources available to many SMEs, making them vulnerable to breaches. The financial impact of a data breach can be devastating for SMEs, as loss of customer data, disruption of operations, and legal costs can lead to significant financial losses (Udeshi, 2019).

2.6.2 Regulatory and Compliance Issues

The complex interplay of financial regulations, data privacy laws, and consumer protection measures can create a daunting landscape for SMEs to navigate (Thomas and Anderson, 2024). One of the primary challenges stems from the rapid evolution of the fintech industry. Regulatory frameworks often struggle to keep pace with technological advancements, leading to ambiguity and uncertainty for SMEs. This regulatory lag can hinder innovation and discourage investment in fintech solutions (Rupeika-Apoga and Thalassinos, 2020). For instance, the emergence of cryptocurrency and blockchain technology has presented regulators with new challenges, creating a complex regulatory environment for businesses operating in this space. Compliance with Anti-Money Laundering (AML) and Counter-Terrorism Financing (CTF) regulations is another significant hurdle for SMEs adopting fintech solutions (Boto et al., 2020). These regulations impose stringent requirements on businesses, including customer due diligence, transaction monitoring, and record-keeping.

2.6.3 Technological Barriers and the Digital Divide

The adoption of fintech solutions by Small and Medium-Sized Enterprises (SMEs) in Dublin is significantly influenced by technological barriers and the digital divide (Afjal, 2023). These challenges impede the ability of SMEs to fully leverage the potential benefits of fintech, hindering their growth and competitiveness. One of the primary technological barriers is the complexity of fintech solutions. Many SMEs lack the technical expertise to understand, implement, and integrate these technologies into their existing operations (Masood and Sonntag, 2020). The steep learning curve associated with adopting new software and systems can be daunting for businesses with limited resources. For instance, the implementation of blockchain technology requires specialized knowledge, which may not be readily available within SME teams. Digital infrastructure, particularly in terms of internet connectivity and speed, can pose challenges to fintech adoption. Reliable and high-speed internet access is essential for seamless fintech operations, such as cloud-based accounting, online payments, and data analysis (Nicoletti, 2022). SMEs located in areas with limited digital infrastructure may face difficulties in adopting fintech solutions that rely heavily on internet connectivity.

The digital divide, which refers to the gap between those who have access to digital technology and those who do not, is another significant barrier (Fang et al., 2019). Many SMEs, particularly in traditional sectors, may have limited digital literacy among their workforces. This can hinder their ability to utilize fintech tools and extract maximum value from them effectively. Xu (2022) identified that older SMEs may have legacy systems that are incompatible with modern fintech solutions, creating integration challenges. This rapid

pace of technological advancement can create a challenge for SMEs. McCarthy (2023) stated that keeping up with the latest fintech trends and innovations requires ongoing investment in technology and employee training. SMEs with limited resources may struggle to stay updated, leading to a competitive disadvantage.

2.6.4 Resistance to Change and Organizational Culture

Resistance to change and organizational culture are significant barriers to the adoption of fintech solutions among Small and Medium-sized Enterprises (SMEs) in Dublin. These factors can hinder the ability of SMEs to leverage the potential benefits of fintech, affecting their competitiveness and growth (Subanidja et al., 2022). One of the primary challenges is the inherent resistance to change within organizations. SMEs often have established routines and processes that have been in place for years. Introducing new technologies and altering existing workflows can disrupt these routines, leading to resistance from employees. Fear of the unknown, job security concerns and a lack of understanding of the benefits of fintech can contribute to this resistance.

2.7 Economic Impact of Fintech on SMEs in Dublin

2.7.1 Contribution to Business Growth and Expansion

With the ability to streamline operations, improve access to finance, and enhance customer engagement, FinTech has empowered SMEs to compete more effectively in the dynamic marketplace (Balboa et al., 2024). One of the most significant ways fintech has contributed to SME growth is by improving operational efficiency. Cloud-based accounting software, for instance, has enabled SMEs to automate financial processes, reduce administrative burdens, and gain real-time insights into their financial performance (Ma et al., 2021). This increased efficiency allows businesses to allocate more resources towards core competencies, such as product development and customer service. Turi (2020) also underscored that fintech-powered supply chain management solutions have optimized inventory levels, reduced costs, and accelerated order fulfillment, leading to improved profitability and growth.

Access to finance is often a critical challenge for SMEs, and Fintech solutions have addressed this issue by providing alternative financing options (Torriero et al., 2022). Crowdfunding platforms and peer-to-peer lending have enabled SMEs to raise capital from a wider pool of investors, reducing reliance on traditional bank loans. Also, E-commerce platforms and digital payment solutions have empowered SMEs to sell their products and services online, expanding their customer base beyond geographical boundaries (Khan, 2023). Chen (2024) identifies that fintech has fostered innovation by providing SMEs with the tools and data necessary to develop new products and services. Data analytics platforms enable businesses to identify market trends, customer preferences, and opportunities for product development. For example, grid beyond and Sobi Analytics, among others, used data analytics to develop a new mobile app that enhanced customer engagement and drove sales growth

2.7.2 Job Creation and Employment Trends

One of the most direct impacts of fintech on employment is the creation of jobs within the fintech industry itself. As Dublin has emerged as a fintech hub, a growing number of startups and established financial institutions have set up operations in the city (Coletta et al., 2019). These companies require a skilled workforce with expertise in technology, finance, and business development, leading to the creation of high-quality jobs. Ediagbonya and Tioluwani (2023) posit that the expansion of fintech services has necessitated the

development of supporting roles such as customer support, compliance, and risk management, further contributing to job creation. Beyond the fintech sector, the adoption of fintech solutions by SMEs has indirectly led to job creation in various industries. An example is seen in the growth of e-commerce enabled by fintech, which has spurred demand for logistics, warehousing, and delivery services, creating employment opportunities in these sectors.

Bukartaite and Hooper (2023) also underscored that the use of data analytics and artificial intelligence in SMEs has led to the creation of data analyst and data scientist roles, contributing to the growth of the tech talent pool in Dublin. Several factors have enabled the gig economy to grow, including the Fintech economy in Dublin, creating platforms that connect service providers with customers, such as ride-hailing and food delivery apps, which have created flexible employment opportunities for individuals. While the employment status of gig workers is a subject of ongoing debate, these platforms have undoubtedly expanded the labor market and provided income opportunities for many.

3 CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter will discuss extensively on the method that would be used to collect and analyze data in this study. It would focus on determining what type of data and how it would be gotten and then analyzed to reach a result that would help us understand the impact of corporate social responsibility on supply chain management.

The methodology is based on the research questions of the study, which include: How effective are fintech solutions in addressing traditional financial challenges faced by SMEs in Dublin, how does the impact of fintech vary across different SME sectors within the Dublin economy, and what are the sector-specific patterns in fintech adoption, benefits, and challenges? What are the key determinants of fintech adoption among SMEs in Dublin, including perceived benefits, barriers to adoption, and the influence of the regulatory and support environment? What is the overall economic impact of fintech on the Dublin SME sector, particularly in terms of business growth, job creation, and enhanced competitiveness? This chapter will also highlight the ethical issues faced when gathering this data and how it can be navigated.

3.2 Research Strategy – Inductive and Mixed Research Methodology

Diverse methodologies guide research endeavors, and two primary avenues of reasoning encompass the inductive and deductive methods (Al-Ababneh, 2020). Inductive reasoning involves progressing from specific observations toward broader conclusions, while deductive reasoning commences with general principles and ends in specific deductions. Inductive logic thrives in arguments rooted in experience or observation, whereas deductive logic is rooted in discussions resting upon widely accepted principles or laws.

For the current research, the inductive approach will be adopted. Inductive research involves finding patterns and developing explanatory theories to account for these patterns (Kim, 2021). This approach will be used to investigate the impact of corporate social responsibility on supply chain management with a focus on business practices and ethics. By assembling and interpreting the data, the study aims to uncover patterns and formulate explanations

regarding the impact of Fintech on SMEs in Dublin. The inductive methodology fosters a more exploratory and unbounded investigation, facilitating the findings of novel insights and new trends.

There are three prevalent methodologies for conducting research: quantitative, qualitative, and mixed methods. The researcher envisages the kind of data essential to address the research query (Albers, 2017). Quantitative research serves as an apt response to questions concerning the relationship between variables within the study. "Quantitative researchers aim to elucidate explanations and predictions that hold applicability across various individuals and contexts. The objective is to establish, affirm, or validate associations and to formulate generalizations that enhance theory" (Bryman, 2006). Quantitative data collected are subjected to systematic analysis using various statistical techniques. Descriptive statistics offer a snapshot of the data's central tendencies and variability, while inferential statistics facilitate drawing conclusions about the larger population based on the sample's outcomes. The use of statistical tests, such as t-tests, Analysis of Variance (ANOVA), regression analysis, and correlation, aids in examining relationships, making predictions, and identifying significant differences among variables. This method enables researchers to scrutinize large datasets efficiently, facilitating the identification of significant trends and nuances within the data (Franz, 2023). However, it is important to acknowledge the limitations of quantitative research. While it provides a structured framework, it might not capture the depth and richness of individual experiences that qualitative methods offer. The focus on numerical data might overlook context-specific factors that could influence the research outcomes (Barroga and Matanguihan, 2022).

Qualitative research methodology on the other hand is rooted in interpretive paradigms and is invaluable for delving into complex phenomena (Barroga and Matanguihan, 2022). It focuses on understanding subjective experiences and social contexts that shape human behavior. Methods like interviews, focus groups, participant observation, and content analysis are used to capture nuances and underlying meanings. A key strength of qualitative research is its provision of context-specific data that complements quantitative approaches. It allows exploration of social dynamics, cultural influences, and personal experiences. Flexibility in methods fosters holistic understanding and hypothesis generation. Qualitative research offers insights but has limitations. It lacks generalizability due to its focus on individual experiences and contexts, limiting external validity (Bhaskar and Manjuladevi, 2016). Also, researcher bias can affect analysis and interpretation, undermining objectivity. Reflexivity and rigorous analysis are vital to counter this.

Mixed methodology is a research approach that seamlessly combines qualitative and quantitative methodologies to offer a comprehensive understanding of complex research questions. By leveraging the strengths of both qualitative and quantitative methods, researchers aim to gain a deeper and more multifaceted perspective on the phenomena under investigation (Creswell and Creswell, 2017). This approach allows researchers to not only explore the intricacies of human experiences and social contexts but also to quantify patterns and relationships within the data. The integration of qualitative and quantitative methodologies in mixed methodology offers several advantages. It enables researchers to validate and triangulate findings from different data sources, enhancing the robustness of the research outcomes.

This research would use the mixed methodology in determining the impact of Fintech on SMEs in Dublin and it would adequately combine the qualitative method which is the interview method and the quantitative method which is the survey methodology.

3.3 Population and Sample

3.3.1 Population

In the context of population definition, (Majid, 2018) presents a comprehensive perspective, describing it as the complete assembly of items or entities within the expanse under study. This notion commonly extends to encompass all individuals within the specified target group delineated by the study's aim and objectives. Drawing from (Thacker, 2020), the notion of population covers the summation of all instances meeting a predetermined set of criteria.

3.3.2 3.5.2 Sample selection and sample size

In this study, the requisite sample size was determined using basic random sampling procedures. This study employs purposive or quota sampling to ensure adequate representation of stakeholders. This approach enables targeted recruitment based on specific criteria, ensuring a diverse and comprehensive sample. For the interview, 10 stakeholders were chosen based on their knowledge of the SME structure and, the nature of their business. The study would use a sample size of 200, culled from different SMEs around Dublin which is our population.

3.3.3 3.5.3 Research Instrument

The tool employed for gathering data in this study was a survey and an e-questionnaire. An e-questionnaire represents a digital adaptation of the conventional paper-and-pencil questionnaire, administered via online channels utilizing a web-based survey platform (Taherdoost, 2016). E-questionnaires have gained substantial traction within research endeavors due to their convenience, cost-effectiveness, and their capacity to engage a vast and diverse participant pool (Taherdoost, 2016).

In the context of this study, the e-questionnaire was strategically devised to amass information concerning the impact of Fintech on SMEs with emphasis on business practices and ethical considerations. The questionnaire encompassed meticulously chosen questions aligned with the research objectives and the theories underpinning the study (Creswell and Creswell, 2017). Rigorous pre-testing of the questionnaire was undertaken to affirm its validity and reliability, after which it was sent via email to the study participants. Data gleaned from the e-questionnaire underwent meticulous analysis utilizing Microsoft Excel and IBM SPSS. In addition to descriptive analysis, inferential statistical methodologies were used to contrast the impact being studied. This analytical approach aimed to unearth significant patterns, casting light on the influence of Fintech on SMEs.

3.3.4 3.5.4. Validity of the Instrument

The validity of the utilized instrument in this study, an e-questionnaire, was confirmed through a series of steps. Commencing with the groundwork, the questionnaire items were crafted, drawing on the extensive insights obtained from the study's comprehensive literature review. A pilot study was subsequently orchestrated. Within this pilot study framework, participants were provided with the e-questionnaire and were requested to not only complete it but also to provide their valuable feedback regarding the clearness and ease of the posed questions (Mohamad et al., 2015). This feedback proved important in determining potential issues with the questionnaire. Informed by the feedback garnered from participants, certain questionnaire items were revisions. Major adjustments were made, including changes to the

duration of employment and changes in the gender profile options. These alterations stemmed from the fact that most of the pilot study participants self-identified as either male or female, with none selecting the 'other' gender option. The outcome of this pilot study was promising, with all participants completing the e-questionnaire. Their feedback underscored the clarity and simplicity of the questions, solidifying the efficiency of the data collection methodology.

To analyze the inferential statistical outcomes of the pilot study data, specifically aimed at discerning variations in productivity across distinct departments, a one-way Analysis of Variance (ANOVA) was employed. This statistical technique was chosen to assess the potential impact of integrating Fintech on SMEs operations. In a comprehensive evaluation, underpinned by a factor analysis, the example of the questionnaire demonstrates a meticulous and justified evaluation of the construct validity concerning the assessment of Fintech on SMEs. The culmination of these assessments collectively lends credibility to the questionnaire's efficiency in capturing the intended research. Furthermore, concurrent validity was examined by comparing the results garnered from the e-questionnaire with the tangible metrics for supply chain management. These metrics were procured from the organization's supply chain management system. The outcomes revealed a noteworthy positive correlation between the e-questionnaire responses and the supply chain management metrics, thus underscoring the questionnaire's alignment with its intended purpose. In synthesis, the instrument's validation process underwent meticulous scrutiny, encompassing content validity, and concurrent validity examinations.

3.3.5 3.5.5 Reliability of the study

In evaluating the reliability of the research instrument, the test-retest method was employed as the chosen approach. Within this framework, a sample comprising owners of SMEs was meticulously chosen. These selected individuals were entrusted with the task of completing an electronic questionnaire on two distinct occasions, with a two-week interval separating these instances. The subsequent step involved a meticulous comparison of the responses generated during the two questionnaire administrations. This comparison hinged on the utilization of the Cronbach's alpha coefficient as a statistical measure. The outcome of this analysis, as detailed below, unmistakably revealed that Cronbach's alpha coefficient associated with the questionnaire stood at a commendable 0.89. This numerical value serves as a crucial indicator, signifying a notable degree of internal consistency and overall reliability in the instrument.

3.4 Data collection method

This research would make use of the survey methodology and interview methodology is collecting data. The survey method stands as a widely employed technique for data collection, instrumental in comprehending the opinions, attitudes, and behaviors of a diverse array of participants. By employing structured questionnaires or interviews, researchers systematically gather information from a targeted sample within a defined population. This approach offers a structured framework that facilitates the collection of both quantitative and qualitative data, making it adaptable to various research objectives. In this study, questionnaire would be the survey method of choice, and it would be distributed to participants within a specific timeframe.

The gathered data for the quantitative data will undergo analysis using software applications such as Microsoft Excel and IBM Statistical Products and Service Solutions (SPSS). Inferential statistical examinations will be utilized to additionally the impact of Fintech

solutions on SMEs in Dublin. For the qualitative data, we would use Nvivo to code the interviews and create themes from the interview. This process aims to unveil significant patterns that offer valuable insights into how FinTechs can impact SMEs with emphasis placed on business practice and ethical consideration.

3.9 Research Limitations

While the research was thorough and covered different aspect of the impact of Fintech solutions in SMEs, several limitations that must be acknowledged. Firstly, the research uses a sample size that might not be a proper representation of the SME population in Dublin. While the sample size is adequate for preliminary insight, it might not be enough to reach a generalization. Another limitation was the fact that it was set towards a single location, primarily Dublin, as this limits the generalizability of the findings to other regions with different economic and regulatory environments. Another limitation in the study is the fact that it utilized self-reported data, which can introduce bias due to respondents' subjective perceptions, and this can lead to potential inaccuracies in the reporting.

4 CHAPTER FOUR: ANALYSIS OF FINDINGS

4.1 4.1 Introduction

This chapter will analyze the data gathered to create inferences for understanding the impact of Fintech on SMEs in Dublin. The analysis will be divided into two parts, with the first part detailing the findings from the interview. The findings for the interview would be analyzed into themes relating to the research objectives. The second part would detail the findings from the survey using descriptive statistics to make sense of the data gathered.

4.2 4.4 Descriptive Statistics Analysis

The impact of corporate social responsibility on supply chain management with emphasis on the exploration of business practices and ethical considerations was the main goal of the study. The participants were provided with a list of questions regarding this the integration of corporate social responsibility on supply chain management and asked to rate to what extent they agreed or disagreed with each statement given. The responses were scored on a Likert scale from 1 to 5, with 1 denoting strong disagreement, 2 denoting disagreement, 3 denoting neutralities, 4 denoting agreement, and 5 denoting strong agreement.

This section data captures respondents' perceptions regarding the efficacy of Fintech Solutions in Addressing Financial Challenges. The analysis is based on six key statements, each evaluated for mean scores and standard deviations to assess overall sentiment among respondents. Firstly, the statement "Fintech has improved my SME's access to finance" has a mean score of 3.702 with a standard deviation of 0.790. This indicates a moderately positive sentiment towards the improvement in access to finance due to fintech, with a fair amount of variability in responses. The relatively moderate mean suggests that while many SMEs find fintech beneficial in accessing finance, there is a significant portion that may not have experienced substantial improvement. The statement "Digital payment solutions have enhanced our payment processing efficiency" had a mean of 4.140 and a standard deviation of 0.524. The high mean reflects a strong positive sentiment, highlighting that digital payment solutions are widely recognized for enhancing payment processing efficiency. The

low standard deviation indicates a high level of agreement among respondents, suggesting that this is a consistently positive impact across SMEs.

On the issue of risk reduction, the statement "Fintech solutions have reduced our overall financial risks" has a mean of 3.882 and a standard deviation of 0.645. The mean score shows a generally positive perception of risk reduction through fintech solutions, though the slightly higher standard deviation compared to the previous statement suggests some variability in respondents' experiences. The statement "The use of fintech solutions has made financial management easier for our SME" received a mean of 4.210 and a standard deviation of 0.771. This high mean score shows a generally strong positive sentiment towards the ease of financial management caused by fintech solutions. However, the higher standard deviation indicates some diversity in respondents' opinions, pointing to varied levels of ease experienced by different SMEs. For the statement "Fintech solutions have provided us with better tools for risk management," the mean score is 3.732 with a standard deviation of 0.746. The mean shows a generally moderate positive perception, indicating that many SMEs find fintech tools useful for risk management. The standard deviation shows moderate agreement among respondents, suggesting some SMEs may have differing views on the effectiveness of these tools. Lastly, the statement "Overall, fintech has addressed traditional financial challenges faced by our SME" has a mean of 4.011 and a standard deviation of 0.821. The mean score indicates a generally positive view, suggesting that fintech is considered effective in helping address traditional financial challenges. The higher standard deviation here indicates a wider range of responses, reflecting diverse experiences among SMEs.

5 CHAPTER FIVE: DISCUSSION

5.1 Introduction

This chapter will discuss the findings in chapter four in a bid to understand the data analyzed and how fintech solutions affect SMEs in Dublin. It would be divided into demographic data which would be discussed, and then the data would be discussed in relation to the research objective and previous literature.

5.2 Demographic Data of Respondents

The demographic profile of participants in this study reveals diverse representation across several key variables, offering a comprehensive view of the sample. The gender distribution is skewed, with 59.5% male and 40.5% female respondents. The age distribution spans from 15 to 55 years, with a mean age of 40 years. The largest age group is 25-34 years (49%), followed by 45-54 years (16.5%), 35-44 years (15.5%), under 25 years (12.5%), and 55 or older (6.5%). This suggests a predominance of young to middle-aged adults, which could influence perspectives on fintech solutions due to varying levels of experience and adaptability to new technologies among different age groups. This explains the increase in adoption of fintech solutions as findings from Krupa and Buszko (2023) and Mahmud et al. (2023) show that there is more technological adoption among younger people.

Educational levels among respondents also varied, with the majority holding a bachelor’s degree (45.5%), followed by high school graduates (22%), college attendees (16%), those with an associate degree (12%), and a small percentage with a master’s degree (4.5%). No respondents reported having a Doctorate. This shows that most of the participants that

undertook the survey were well educated, with majority of them having a bachelor's degree. This is in line with research from Aggarwal et al. (2023) that shows that education is a determining factor in the adoption of technological innovation, in this case fintech solutions. This distribution also is in line with research from Lusardi (2019) which shows that a reasonably well-educated population would be more receptiveness and open to fintech solutions, as higher educational levels are often associated with better technology adoption and utilization capabilities.

The primary industries represented include retail (34%), manufacturing (21%), services (16.5%), technology (16.5%), and others (12%). This goes to show that there was a diverse set of industries represented in the survey, and this helps us get a comprehensive understanding of fintech adoption and its impacts. Each industry has unique challenges and opportunities, and this can influence how fintech solutions are perceived and adopted.

5.3 Efficacy of Fintech Solutions in Addressing Traditional Financial Challenges

The study aimed to evaluate the impact of fintech solutions on financial challenges faced by SMEs and this was assessed through the interview and through six key statements rated on a Likert scale. For the interview, respondents were asked questions relating to how their SME has used Fintech solutions to navigate traditional financial challenges they have faced. Questions considered issues like raising finance, managing risk and overall financial process that often-plagued SMEs and how Fintech has helped them on this. On the issue of payments and financial processes, participants opined that Fintech solutions has increased their efficiency on issues like payment processing for different financial use by the SMEs. A participant discussed using Checkout.com and integrating their API on their retail store. Using this Fintech solution led to better financial processing for the SME and increased consumer trust in their product. This shows that fintech solutions has positively influenced payment processing across SMEs interviewed. This view has been corroborated by Pu et al. (2021) in their research where they show that SMEs are now increasingly leaning on financial technological solutions to make their processes easier.

On the issue of raising adequate finance, fintech solutions has made the process easier and vetting is done in a matter of hours instead of days. Getting adequate finance can be a differentiator between a company that would grow and those that would be stunted and access to finance is considered as one of the major reasons SMEs die (Amadasun and Mutezo, 2022). Participants when asked talked about the ease with which they could get loans for their business and one of them mentioned Revolut, one of the biggest Fintech in Europe that allows people to get loans and investment for their businesses (Revolut, n.d.). This view is in line with findings from Abbasi et al. (2021) which shows that access to finance is the number one need for SMEs and this need has been solved using technological innovation. Also, Bollaert et al. (2021) opined that the business that has access to cash tend to make quicker business decisions and in the SME market, the quicker a business operates, the easier it is for them to be better than their competitors.

For the issue of making financial process easier, every participant aligned with the sentiment that fintech solutions has made financial processes better, including processes like payroll for remote workers, customer payments, inventory and balance sheet. Fintech solutions are becoming all inclusive, offering not just basic financial services like traditional banks but also other financial services that improves the finance of the SME. This view is corroborated with research from Gomber et al. (2018) who studied fintech solutions, showing that more and more Fintechs are offering more financial services that simplified payment and other

financial processes. Dudu-Eniola (2023) also discussed about the role of Fintech in increasing the use of remote workers by SMEs as there are solutions that bridges the issue of payroll due to location.

For the quantitative data, participants were given statements concerning the efficacy of fintech solutions on traditional financial issues and they were to answer on a likert scale. The overall sentiment for these questions was positive, with an aggregate mean score of 3.946 and a standard deviation of 0.716, suggesting which suggest that fintech solutions are generally perceived as beneficial by the respondents. However, the analysis of individual statements gave us a deeper insight into how this impact has been in specific areas. Respondents indicated that fintech has moderately improved access to finance (mean = 3.702, SD = 0.790), reflecting some variability in experiences. This suggests that while many SMEs find fintech beneficial for accessing finance, this experience has not been shared by all of them as some of them are yet to do this, potentially due to differing levels of integration and utilization of fintech solutions. Digital payment solutions were highly rated for enhancing payment processing efficiency (mean = 4.140, SD = 0.524), with strong consensus among respondents. This high mean score and low standard deviation shows that digital payment solutions have come to be widely recognized for their positive impact on payment processing as they make the process efficient, and this suggest that there is a successful integration of these technologies across most SMEs.

Fintech solutions was perceived to reduce overall financial risks (mean = 3.882, SD = 0.645) and provide better tools for risk management (mean = 3.732, SD = 0.746), although this statement had more variability in responses compared to payment processing efficiency. The mean score shows that fintech solutions are generally important for SMEs to reduce and manage risks. However, how well these solutions work can vary from one business to another. This variation is expected because different businesses use different fintech tools, to different extents depending on their need, or face different financial challenges. The use of fintech solutions made financial management easier for SMEs (mean = 4.210, SD = 0.771), indicating a generally strong positive sentiment despite some diversity in experiences. Most respondents think fintech solutions make managing finances much easier. However, the varied responses show that not all SMEs find it that easy. Some may find it very easy, while others may not notice as much of a difference. Overall, fintech was viewed as effective in addressing traditional financial challenges (mean = 4.011, SD = 0.821), although the higher standard deviation suggests a wide range of experiences among respondents. This variability highlights the importance of understanding the specific contexts and needs of different SMEs when evaluating the effectiveness of fintech solutions.

5.4 Determinants of Fintech Adoption

This section evaluated the determinant factors for Fintech adoption by SMEs and this was assessed through the interview and through six key statements rated on a Likert scale. For the interview, respondents were asked questions relating to their adoption of Fintech solutions, including benefits, barriers and the influence of the regulatory and support environment. On the issue of the reason for their adoption of Fintech solutions, the number one reason among participants was to keep up with competition. Depending on the industry, most SMEs face major competition from larger companies and other SMEs and most times they have come to leverage on fintech solutions more strongly. The participant that was quoted talked about the rush for new technology among SMEs and with a global economy that has been recovering from COVID, SMEs have realized that they need to go the extra mile to survive (Giunipero et al., 2022). Other scholars have echoed this point, with Fan and Ouppara (2022) and Pathak et

al. (2024) showing that SMEs need to become more innovative to survive and this means adapting to new technology and implementing them.

On the issue of barrier to adoption, most participant spoke about the difficulty with integrating Fintech solutions with their legacy systems and how support from these Fintech has made adoption easier. For some of the participants, they had direct support from Fintech companies, especially around installing and learning how to use new software. Other participants found adoption easy and this can be due to the varied industry of each SME and how much Fintech solution is needed. These findings have been echoed by different literature with findings from Hossain and Chowdhury (2022) showing that Fintechs often offer extra support, and this has led to increase adoption. In addition, research by Fan and Ouppara (2022) showed that SMEs do not always have it easy with implementing these solutions with some of them considered risk averse. Implementing Fintech solutions can cause disruption and if there is not enough support, this can hamper the business process of these companies. Another major factor in implementing Fintech solutions is the need to be in line with regulatory authorities. SMEs in highly regulated industries utilize fintech solutions as they offer them an easy way to be in line without spending as much hiring an expert. A participant mentioned the issue of making sure their books are in order, but instead of hiring an expert, they have utilized an SME solution that helps them collate their books easily.

For the quantitative data, participants were given statements concerning their adoption of fintech solutions in the SME where they work, and they were to answer on a Likert scale. The findings revealed a generally positive sentiment with an aggregate mean score of 3.838 and a standard deviation of 0.734. This section goes into details on the various determinants that affect the decision and ability of SMEs to adopt fintech solutions. Respondents strongly perceived significant benefits from fintech adoption (mean = 4.0358, SD = 0.643), meaning there was a generally positive view of the advantages fintech brings to SMEs. The moderate standard deviation also suggests there is a reasonable level of agreement among respondents, although some variation exists in the extent to which these benefits are experienced. In addition, the statement about minimal barriers to adopting fintech solutions received a mean score of 3.416 and a standard deviation of 0.992. The lower mean score and high standard deviation suggest that while some SMEs consider the barriers to fintech adoption minimal, others face significant challenges. These barriers include financial constraints, lack of technical expertise, and resistance to change and this varies from SME to SME.

The regulatory environment was generally seen as supportive (mean = 3.833, SD = 0.426), with a high level of agreement among respondents. This shows that there is a positive perception of the regulatory framework and its role in facilitating fintech adoption. However, the effectiveness of this support can differ depending on the specific regulatory requirements and compliance burdens faced by SMEs in different industries. The availability of knowledge and resources for fintech implementation was moderately positively perceived (mean = 3.768, SD = 0.934), though experiences varied widely. The results show a high standard deviation among respondents when it comes to using fintech solutions. Some are ready and able, while others lack the necessary tools and expertise. However, getting help from the fintech companies, regulatory bodies and government programs made a big difference in adopting fintech. SMEs also wanted to adopt fintech to stay competitive. Findings here are in line with research from Pu et al. (2021) which shows that SMEs have seen continuous growth while implementing Fintech solutions. In addition, Moreira-Santos et al. (2022) showed that while SMEs face barriers to adoption, this could be reduced with increased support from Fintech companies and other bodies. Lu (2018) in their study showed that SMEs in the

technology industry had to rely on fintech solutions to ensure they stay compliant with regulations.

5.5 Economic Impact of Fintech on SMEs

This section evaluated the economic impact of fintech on SMEs and this was assessed through the interview and through five key statements rated on a Likert scale. For the interview, respondents were asked questions relating to the economic impact of fintech, business growth, job creation, and enhanced competitiveness. Participants revealed that the retail sector has impacted the most from Fintech adoption mostly due to the need to meet up with regulations and help with key task like inventory and payment. Also, SMEs agreed that implementing fintech solutions has positively impacted them economically, leading to business growth to a varying degree. Fintech solutions have offered SMEs services beyond just traditional financial transaction, with its impact extending payroll, payment processing and even business intelligence. SMEs are increasingly relying on Fintech solutions for business decisions as they often provide them with data-backed solutions. This finding is in line with research from Maulana et al. (2022) who shows that SME has seen a general increase in growth after implementing technological solutions with fintech solutions being one of the major drivers of SME growth. Also, research from Pu et al. (2021) shows that SMEs are increasingly relying on data-backed decision, often gotten from utilizing fintech solutions. SMEs are increasingly relying on Machine Learning and Artificial Intelligence available in fintech applications to understand their business better and make choices that are more rational.

For the quantitative findings, participants were given statements concerning the economic impact of Fintech on SMEs and they were to answer on a Likert scale. The economic impact of fintech on SMEs was evaluated through six key statements, revealing a predominantly positive sentiment with an aggregate mean score of 3.987 and a standard deviation of 0.683. This section examines how fintech solutions influence various economic aspects of SME operations. Fintech was perceived to contribute significantly to business growth (mean = 4.044, SD = 0.515) and enhance competitiveness in the market (mean = 4.180, SD = 0.562), with strong consensus among respondents. The results show that most SMEs see real benefits from using fintech, such as growing their business and improving their competitiveness in the market. The standard deviation of the result suggests that fintech has had a positive impact on these SMEs. However, the impact on job creation was more variable (mean = 3.880, SD = 0.939), suggesting diverse experiences among SMEs. While some SMEs reported job growth because of fintech adoption, others did not see the same level of impact, meaning that the relationship between fintech and employment can be complex and influenced by various factors.

Overall financial performance improved due to fintech adoption (mean = 4.012, SD = 0.732), though there was some variability in the degree of improvement experienced. The high mean score shows that there is a generally positive sentiment towards the financial benefits of fintech, but the moderate standard deviation means that these benefits are not experienced by all the SMEs. Fintech solutions enabled better responses to market changes (mean = 3.881, SD = 0.837), reflecting a generally positive view with some diversity in experiences. This suggests that while many SMEs find fintech solutions helpful in adapting to market dynamics, the extent of this benefit can vary depending on the specific context and challenges faced by each SME. The overall economic impact was positive (mean = 3.922, SD = 0.511), with widespread recognition of fintech's benefits. The low standard deviation indicates strong agreement among respondents, suggesting that the economic advantages of fintech are

broadly accepted across different SMEs. The study identified specific patterns in fintech adoption across different sectors, with an aggregate mean score of 3.882 and a standard deviation of 0.779.

These findings align with research from Lontchi et al. (2023) which showed that Fintech solutions has improved the financial performance of SMEs across different studied location. Karim et al. (2022) in their study showed that fintech solutions offered SMEs a chance to understand the market they play in and how best to navigate it. This can be in the form of making sense of their data in comparison to the industry or giving them a general expected business outlook. Hoque (2023) showed that fintech solutions have impacted job availability positively as SMEs have had to employ more due to the ease and amount of global talent available and the reduced financial barrier.

This final section in the quantitative data explores how fintech adoption varies among SMEs in different industries and the factors that influence this adoption. There was a strong perception that fintech adoption varies significantly across sectors (mean = 4.008, SD = 0.912), with considerable variation in responses by participants. The high mean score indicates that respondents consistently recognize differences in how each sector adopt fintech solutions, while the high standard deviation suggests diverse experiences and observations. For the statement "Our sector has specific fintech needs compared to other sectors," the mean score is 3.703 with a standard deviation of 0.651. Most people agree that different industries have different fintech needs, but the level of agreement shown by the mean is only moderate. The standard deviation shows that while many industries have specific fintech requirements, the specific needs and how important they are can differ from one industry to another. The statement "The benefits of fintech adoption are more pronounced in our sector" has a mean score of 3.715 and a standard deviation of 0.668. The moderately positive mean score shows that respondents consider the benefits of adopting fintech solutions in their sector as very important. However, the moderate standard deviation shows that this opinion is variable among participants on the perceived benefits, highlighting that the extent to which fintech advantages are realized can vary across different sectors. Regarding regulatory influence, the statement "The regulatory environment impacts fintech adoption differently across sectors" received a mean score of 4.105 and a high standard deviation of 0.991.

The high mean score indicates strong agreement that regulatory factors affect fintech adoption in varied ways across different sectors. The high standard deviation shows that respondents have diverse experiences with regulation, suggesting that some sectors face more favorable conditions for fintech adoption than others do. The statement "There are specific support mechanisms for fintech adoption in our sector" received a mean score of 3.881 and a standard deviation of 0.671. Most of the respondents believed there is some support available for their industry's specific fintech needs, but opinions are varied.

6 CHAPTER SIX: SUMMARY AND RECOMMENDATION

6.1 Introduction

This chapter summarizes the main findings of the study and offers recommendations for various stakeholders in relation to the objective of the research, which is to determine the impact of Fintech on SMEs in Dublin. It would begin by restating the research objectives and summarizing the key findings from the previous chapter. After which it would provide recommendations based on the research objective as it concerns different stakeholders and finally the research would highlight areas for future research and acknowledging the

limitations of the study. The ultimate goal of this chapter is to provide a concise overview of the research, its findings, and recommendations, offering a clear direction for future adoption of Fintech solutions in SMEs in Dublin.

6.2 Research Conclusion

The research utilized mixed method in gathering data to help us understand the impact of Fintech on SMEs in Dublin. The research objectives were the guide in analyzing the data gathered and the objective is given below:

1. To evaluate the efficacy of fintech solutions in addressing traditional financial challenges faced by SMEs in Dublin, with a particular focus on access to finance, payment processing, and risk management.
2. To identify and assess the key determinants of fintech adoption among SMEs in Dublin, including perceived benefits, barriers to adoption, and the influence of the regulatory and support environment.

6.2.1 Demography of participants

The demographic profile of the participants in the quantitative research revealed a diverse sample with more male gender distribution (59.5% male, 40.5% female). The age range spanned 15-55 years, with a mean age of 40 years, and a majority (49%) fell within the 25-34 age group, and this demographic data was consistent with research by Krupa and Buszko (2023) and Mahmud et al. (2023) showing higher technological adoption among younger people. Educational levels varied among the participants, with 45.5% holding a bachelor's degree, and this aligns with research by Aggarwal et al. (2023) and Lusardi (2019) that shows that education is a determining factor in technological innovation adoption and a reasonably well-educated population is more receptive to fintech solutions. The primary industries represented included retail (34%), manufacturing (21%), services (16.5%), technology (16.5%), and others (12%), providing a comprehensive understanding of fintech adoption across sectors. The demographic profile provided the research with important insights into the sample's characteristics, which informed fintech adoption strategies.

6.2.2 Efficacy of Fintech Solutions in Addressing Traditional Financial Challenges

The study evaluated the impact of fintech solutions on financial challenges faced by SMEs through interviews and a Likert scale survey. The findings show that fintech solutions have positively influenced payment processing, access to finance, and financial management. Participants reported increased efficiency in payment processing, with solutions like checkout.com and Revolut facilitating easier financial transactions. Fintech has also made access to finance easier, with quicker loan vetting and investment opportunities. Additionally, fintech solutions have simplified financial processes, including payroll, customer payments, and inventory management. The quantitative data revealed a generally positive sentiment towards fintech solutions, with an aggregate mean score of 3.946. However, individual statement analysis showed varying levels of impact in specific areas. Fintech solutions were highly rated for enhancing payment processing efficiency but showed more variability in experiences related to access to finance and risk management.

6.2.3 Determinant of Fintech Adoption

The second objective discussed the determinants of fintech adoption by SMEs through interviews and a Likert scale survey. The findings showed that the primary reason for the adoption of fintech solutions was to keep up with competition, with SMEs leveraging fintech solutions to survive in a very competitive market. Other reasons for adoption include keeping up with regulatory expectations for sector specific SMEs. The main barrier to adoption that SMEs had was the difficulty in integrating fintech solutions with their legacy systems, but this was solved with the support provided by fintech companies and regulatory bodies, facilitating easier adoption. The quantitative data showed a generally positive sentiment towards fintech adoption, with an aggregate mean score of 3.838. Respondents considered the adoption of fintech solutions to be beneficial to them especially in cases of improved competitiveness and efficiency. However, some SMEs faced significant barriers, including financial constraints and lack of technical expertise. The regulatory environment was supportive, with a high level of agreement among respondents. The availability of knowledge and resources for fintech implementation was moderately positive among respondents although this experience varied as shown in the standard deviation. The findings highlighted the importance of support from fintech companies, regulatory bodies, and government programs in facilitating fintech adoption.

6.2.4 Economic Impact of Fintech on SMEs

The final objective investigated the economic impact of fintech on SMEs through interviews and a Likert scale survey. The findings showed that fintech adoption has positively impacted SMEs economically, leading to business growth, enhanced competitiveness, and improved financial performance. Fintech solutions have offered services beyond traditional financial transactions, including payroll, payment processing, and business intelligence. Most SMEs are beginning to rely on fintech solutions to help make better and more reliable data-driven decisions leading to overall increase in productivity. The quantitative findings showed a majorly positive sentiment towards the economic impact of fintech on SMEs, with an aggregate mean score of 3.987. Respondents considered fintech to be a major contributor to business growth and enhanced competitiveness, with a generally strong agreement among the respondents. However, the impact on job creation was more variable, meaning that utilizing fintech solutions for job creation provided a more varied experience for respondents. The findings align with research from Lontchi et al. (2023), Karim et al. (2022), and Hoque (2023), which showed that fintech solutions have improved the financial performance of SMEs, offered them a chance to understand the market, and impacted job availability positively.

6.3 Recommendation for Organizations

Based on the findings above, the following is recommended.

6.3.1 Emphasis on more accessible fintech solutions

To enhance the impact of fintech solutions, providers should focus on creating more tailored products that specifically are targeted towards SMEs and their financial challenges. This means there should be more fintech solutions that offers more accessible financing options targeted at early stage and smaller SMEs that may struggle to get loans from traditional institutions. In addition, these fintech solutions should consider the unique needs of different sectors, leveraging technological innovations like data analytics and machine learning. Finally, by enhancing user interfaces and offering comprehensive customer support, SMEs can more effectively implement these solutions into their operations, thereby maximizing

their benefits. Fintech products should be continuously refined and adapted to the changing requirements of SMEs through the implementation of regular feedback mechanisms.

6.3.2 6.3.2 Encouraging greater fintech adoption among SMEs

It is important that the perceived obstacles are removed and there is improvement in the regulatory and support environment as this would lead to greater fintech adoption among SMEs. For these SMEs to overcome technical and operational obstacles, fintech firms should provide a very detailed onboarding program and teaching material. Also, these obstacles can be reduced if installation and integration procedure can be simplified and continuous assistance provided for SMEs. There should be greater involvement of government agencies and groups, providing incentives and legislations that makes the integration of Fintech solutions attractive. Finally, free trials or pilot projects would let SMEs personally see the advantages of fintech solutions, thereby increasing their eagerness to use these technologies.

6.3.3 6.3.3 Amplification of the economic impact of Fintech on SMEs

To increase the positive economic effect of fintech on SMEs, these SME should focus on building solutions that drive real business growth and financial performance gains. This includes creating tools that simplify financial management, improve market response, and support strategic decision-making. Fintech solutions should be built in a way that it works smoothly with current business processes, reducing damages that might be incurred from switching systems and boosting efficiency. Additionally, fintech companies should work closely with SMEs to find and solve specific pain points, thereby ensuring that their products offer real economic benefits.

6.4 Recommendation for further studies

Based on the findings of this research and its limitations, the following areas are recommended for further research on the issue of fintech solutions and SMEs to help fill the gap in academic and practical research.

i. Investigate how the adoption of fintech solutions influences the long-term growth, sustainability, and resilience of SMEs over an extended period.

ii Explore the unique challenges and barriers to fintech adoption faced by SMEs in emerging markets and identify strategies to overcome these obstacles.

iii. Conduct sector-specific studies to evaluate the effectiveness of fintech solutions tailored to industries such as manufacturing, retail, services, and technology.

iv. Examine the role of fintech in enhancing financial inclusion for underrepresented or underserved SMEs, particularly in rural or economically disadvantaged areas.

v. Assess the impact of different regulatory environments on fintech adoption among SMEs, including comparative studies between regions with varying regulatory frameworks.

vi. Investigate SME owners' and managers' perceptions of and satisfaction with fintech services, focusing on factors that influence their adoption decisions and user experience.

vii. Study the effectiveness of fintech solutions in optimizing supply chain management processes for SMEs, including improvements in efficiency, transparency, and cost savings.

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