THE IMPACT OF TECHNOLOGY ON CUSTOMER RELATIONSHIP MANAGEMENT (CRM) IN UK BANKS

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DECLARATION

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

Signed: Tobechukwu Cornelia Eze (candidate)
Date: 10th December, 2024

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This thesis results from my independent research, except where otherwise stated (a bibliography is attached).

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DEDICATION

This research is dedicated to my lovely partner, Mr Kenneth Aneke, whose unwavering support and understanding made this journey possible, and our children, whose patience and love inspired me every day.
Their love and remarkable devotion pushed me to the finish line during this study. The strength and encouragement behind my completion showed them that giving up is not okay. Together, as a family, we accomplished this milestone.

I also dedicate this thesis to friends and family members who constantly check on my progress and to the academic community whose guidance and support were invaluable.

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ABSTRACT

This research investigates the relationship between retail bank customers in the UK and the technologies the banks have adopted to manage and build customer relationship management. The main objective is to explore the impact of these technological advancements on CRM in UK retail banks and the influence on customers. The researcher's development of ideas has two phases.

The first phase, conducted in 2021, involved an empirical survey of retail bank customers. This phase provided significant insight, such as the increased adoption of online banking. The second phase compared three perspectives: the views of retail banks regarding their customers, customers' actual responses from the survey, and independent observers' opinions, drawing on the internet, social networks and various sources in the public domain, all referenced in the body of the thesis. The study recognises that retail banks now operate in a globally competitive financial market, significantly influenced by globalisation, CRM technologies, and the internet. The main research question is, "How have customers responded to significant technological innovations?" It examines the direct interface between three perspectives: customers, retail banks, and independent observers.

The author developed a Venn diagram model of technology acceptance that visually represented the blends of acceptance, adoption, and adaptation concepts that highlight each perspective's intersections, commonalities, and differences. The study findings underscore the significant benefits of retail bank technologies, with high customer awareness and usage. The convenience, accessibility, and personalised experiences these technologies offer have transformed banking interactions and transactions, making online banking the preferred method for most adults in the UK. This transformation signals a promising future for CRM in UK retail banks.

The study also found a significant shift from manual processes to sophisticated data-driven systems. This transition has empowered banks to harness customer data for personalised and customer-centric banking, paving the way for a more efficient and customer-friendly future of banking. The transformative power of technology is evident, inspiring a hopeful future for CRM in UK retail banks. However, the findings also highlight the risks associated with technology, on CRM such as fraud, identity theft, and transaction mistakes, which underscore the need for robust security measures and customer education. The thesis offers empirical, academic, and practical contributions by providing a detailed analysis of the evolution of

CRM technologies in UK retail banking. It offers an informed future trajectory of CRM technology development, enlightening and preparing the audience for what is to come. This research contributes to the body of knowledge by developing a unique conceptual framework that visually represents and clarifies the relationships and interactions central to CRM technology's impact. The research also significantly contributes to practitioners by providing helpful advice promoting safety and confidence when using CRM technologies. This emphasis on the safety and confidence provided by the research is intended to make the audience feel secure and reassured about using CRM technologies.

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ABBREVIATIONS

AI	Artificial intelligent
ATM	Automated teller machine
CRM	Customer relationship management
DQ	Demography Questions
EFT	Electronic fund transfers
EU	European Union
FCA	Financial Conduct Authority
FDI	Foreign Direct Investments
GDP	Gross domestic product
IVR	Interactive Voice Response
ICT	information and communications technology
KPMG	Klynveld Peat Marwick Goerdeler
LSC	London School of Commerce
OECD	Organisation for Economic Co-operation and Development
OFT	Office of Fair Trading
POS	Point of sales terminal
PRA	Prudential Regulatory Authority
RPA	Robotic process automation
SEPA	Single Euro Payments Area
SPSS	Statistical package for social science
SQ	Survey Questions
UK	United Kingdom
UWTSD	University of Wales Trinity Saint David

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CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

This thesis investigates the relationship between retail bank customers in the UK and the technologies banks adopt to manage and enhance customer relationships, specifically focusing on Customer Relationship Management systems. The research development of ideas, which is significant, unfolds in 2 phases.

First, the researcher conducted empirical research based on a sample survey of bank customers. This rigorous study provided insights into the interplay between technology and customer interactions within the UK retail banking sector. As the examination committee commented, a much more in-depth investigation was required.

The second phase of the research drew on various technologies that were the subject matter of the thesis. The research involves a comparative analysis of three distinct viewpoints: the views of the retail banks about customer responses, the actual customers' responses from the survey, and independent observers' views. The theoretical aspect of this phase employs a conceptual model depicted in Figure 2.4, a comparative Venn diagram illustrating these viewpoints. The empirical aspect of this phase draws on internet sources, related social networks and various data sources in the public domain. Later chapters fully reference these sources.

It then opened up on the future trajectory of CRM technologies and their implications for retail banking relationships. The evolution of CRM technologies, customer expectations over the past four decades, and future developments highlight the industry's dynamic nature. To assist the reader in understanding, the researcher introduces a conceptual model, with in-depth analysis discussed in Chapter Two. The current global competition and rapid technological advancements are accelerated by digital innovations, the World Wide Web, and the Internet. This research utilizes various online resources to inform the latter phases. The main research question is: "How have customers responded to significant technological innovations in CRM?" The thesis aims to unravel this question by examining the direct interactions between retail banks and their customers through CRM systems, considering perspectives from customers, banks, and independent observers, and exploring the relationships and discrepancies among these perspectives.

Additionally, the thesis seeks to identify emerging technologies that may shape the future landscape of retail banking relationships by selecting appropriate data sources, evaluating relevant technologies, and examining the implications of CRM experiences for future advancements.

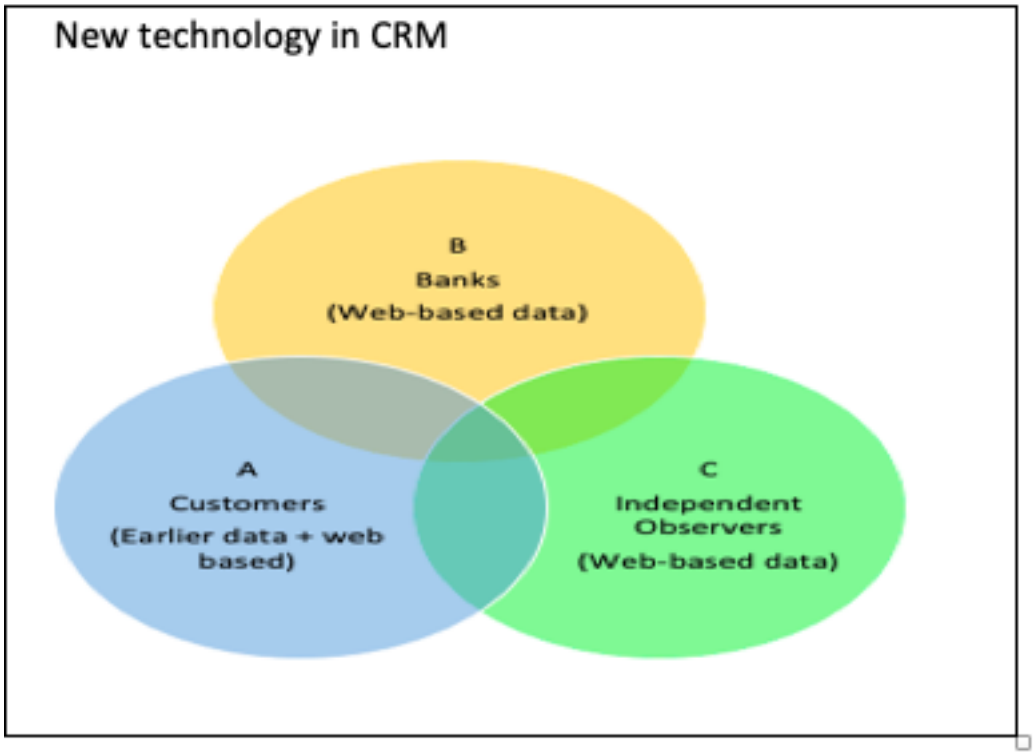


Figure 1.1 Model by Researcher

The author develops a conceptual model as a framework for technology acceptance. It is the foundation of her empirical research of technology acceptance, which enables her to study the impact of CRM technologies and illustrate the coevolution of CRM technology in retail banking and customer acceptance and demands.

The thesis contributes to understanding the impact of recent technological developments in retail banking and its impact on customers, currently and in the future, basing its findings on various responses described in the diagram above. The thesis also has important practical contributions in an era of exponential technological change and innovation, for example:

a) To the UK banking industry.

b) To gain a deeper understanding of CRM and related technologies in UK retail banking as they appear currently.

c) Attempts based on scholarly analysis to make an informed projection of the future as CRM and related technologies evolve.

The practical aspects outlined in a) to c) also have a significant personal dimension. The researcher works with physically, educationally, or socially disadvantaged people who rely on retail banks for their everyday affairs. A more detailed account follows in Chapter 6 page 169. However, an account of how she supports her client gives insights into the problems faced by people to whom technology can be intimidating and the challenges banks face in overcoming them. It also conveys the importance of the research to the researcher and, hopefully, to the reader.

1.2 RESEARCH JUSTIFICATION

The account in the previous paragraph leads to consideration of the justification for the research. Retail banking has undergone significant transformation over the past 40 years, driven by technological advancements, heightened competition, and globalisation. The sector has faced numerous challenges, including banking scandals and financial crises, adversely affecting its reputation and service quality. Banks have increasingly implemented technology-driven Customer Relationship Management (CRM) initiatives to attract and retain customers amidst this evolving landscape. This thesis aims to explore the effects of these initiatives on customers by examining perspectives from three key stakeholders: the customers themselves, the banks, and independent observers. The conceptual model used for this analysis, depicted in Figure 2.4, employs a Venn diagram to highlight similarities and differences among these perspectives.

The study will provide valuable insights into how customers experience the latest technological advancements in banking.
The account in the previous paragraph leads to consideration of the research's justification. The study will also assess the broader implications of technological innovations for retail banks and offer an evaluation from independent experts. All have biases, but the researcher hopes a useful synthesis will emerge by considering different perspectives. By analysing customer perceptions of modern banking technology, the research intends to present relevant findings to the UK banking industry, thereby influencing future strategies and policies as CRM technology evolves.

Although existing research has extensively covered CRM progress and operational challenges in banking, there is a notable gap regarding the impact of technology on CRM within UK banks. This research aims to fill this gap by synthesising the three perspectives and doing so by using the technology adopted in the research, for example, internet and social media, to critique the responses of customers and banks to the commercial use of the technology.

The role of CRM technology has been accelerated by the global COVID-19 pandemic. The shock that measures to control the pandemic imposed on face-to-face, in-person communication has led to an irreversible acceleration of a 40-year trend towards remote electronic communication. Therefore, the significance of the research question addressed in the thesis is particularly timely. It asks, "How have the people and institutions responded?" From the answers to that question, the thesis outlines possible prospects.

1.3 BACKGROUND OF THE STUDY

It is crucial to highlight the pivotal role of the UK financial sector, which encompasses a diverse range of financial institutions, including banks, pension funds, insurance companies, and financial intermediaries (Bank of England, 2011). UK banks are the most significant contributor in this context, holding a substantial 57% market share in the global retail banking landscape.

In the modern Information Age, customers are becoming increasingly aware of and enlightened about their expectations and the level of services the bank can and should offer (Abu-Shanab & Anagreh, 2015). Retail banks have innovated in many directions and made cuts to former services that customers had become familiar with. Banks now compete globally, and customers constantly compare the services they get from their banks with those of other banks, thereby benchmarking with the best practices or expectations. The author’s empirical research shows that customers tend to be loyal to their banks and show limited tendencies to switch banks. However, these results may be biased by the population’s age distribution because research shows that younger customers are much more likely to switch banks.

To maintain and improve their brand image, the banks have adopted new technologies, strengthened their competitive advantage, and improved customer relationship management

(Agariya & Singh, 2012). In UK banks, the use of technology has increased because it plays a significant role in the economy's growth. However, it has left the bank in a remarkable state where customers must face machines, apps, voice instructions, and commands to relate with their banks. These changes have severe implications for the social life of customers and society.

BBC News (2018) published a report showing that banks have closed up to 60 branches every month for the past three years. However, some customers are left without a choice at this alarming rate, compelling them to use alternate channels. The report has yet to show the percentages of customers who prefer visiting bank branches to carry out their transactions and those who are indifferent to technology.

Moreover, some customers who are adamant about technology now find themselves, in one way or another, affected by daily banking transactions. Customers sometimes travel miles before using a branch or an ATM. There has also been an increase in fraud associated with the hype in banking technology. Customers are being lured into entering a fraudulent transaction, unknowingly losing their life earnings. The customer's bank account can be drained using different methods, starting from using card details on Internet banking or stealing the entire identity of the customer. According to BBC News (2019), every year, over 900,000 customers find themselves in a situation where money has gone out of their accounts without their consent.

Therefore, the Venn diagram visually represents the overlapping perspectives of customers, the bank, and independent observers. It demonstrates the areas of similarities and differences among the three perspectives, highlighting their commonalities and intersections.

1.4 STATEMENT OF THE STUDY

Over the years, establishing and maintaining good customer relationships has become increasingly critical for banks, leading them to innovate and adopt advanced technologies to enhance communication channels continuously. Customer Relationship Management (CRM) has emerged as a major business concept, gaining significant prominence and attracting global research interest (Navimipour & Soltani, 2016). The significance of this research lies in its potential to shed light on the challenges and opportunities presented by the growing complexity of CRM in banking, especially as some customers prefer traditional relationship methods over modern technological approaches. While acquiring new customers remains relatively straightforward, retaining existing ones is crucial for long-term business success

(Alshawi et al., 2011). The potential benefits of this research include a deeper understanding of customer preferences and the development of innovative strategies for enhancing CRM in UK banks.

Despite the growing importance of CRM technology, businesses often need help to differentiate themselves and gain a competitive edge in performance and customer relationship management (Ali et al., 2019; Acheampong et al., 2023). The implementation of CRM technology is frequently criticised for being oversimplified and inadequately evaluated, as it is sometimes treated as a one-size-fits-all solution (Siddiqi, 2011; Filip, 2013). This approach needs to address the nuanced preferences of customers who may not fully embrace new technological methods and seek more than technological advancements in their banking relationships.

This research aims to investigate the impact of technology on CRM within UK retail banks by exploring several dimensions: the experiences of customers using various CRM technologies, the benefits and risks associated with these technologies, and the opportunities they present. The study will also analyse bank perspectives on customer acceptance and perceptions of new technologies, drawing data from their online platforms. Additionally, it will review insights from independent observers on CRM technology in retail banking. By comparing similarities and differences across these perspectives, the research seeks to inspire innovative strategies for enhancing CRM in UK banks.

The theoretical foundation of this thesis is based on CRM and technology, while the empirical analysis involves a thorough examination of relevant resources detailed in Chapter Three. The goal is to provide actionable recommendations for improving CRM practices, ultimately leading to more effective and customer-centric banking experiences. When implemented, these recommendations have the potential to transform the way UK banks manage their customer relationships, significantly impacting the banking industry.

1.5 OVERVIEW OF THE RESEARCH ENVIRONMENT

The United Kingdom, often abbreviated as the UK, is a nation of unique cultural diversity comprising four distinct countries: England, Wales, Scotland, and Northern Ireland. This rich blend of cultural heritage and a modern and innovative environment sets the UK apart. The banks and financial institutions that provide crucial financial services are closely monitored, ensuring a stable financial system and a competitive financial market (Holt, 2020).

The Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA) are the two major regulators of the UK's banks, ensuring the stability and integrity of the financial system (Holt, 2020).

The PRA is responsible for financial safety and integrity, while the FCA ensure the proper operation of the financial market in the UK. Moreover, the Bank of England performs auxiliary regulators and resolutions related to bank authorities.

The UK has a free economy, which means that all resources allocated in the UK economy are purely according to demand and supply forces (Dudoviskiy,2013). The UK is the fifth largest economy in the world measured by its gross domestic product (GDP), while it is the 9th on its purchasing power parity and the 29th GDP per capita with 3.5% of the world GDP (Jakeman, 2019). However, investment remains vital in any economy as it drives long-term (GDP) growth. Over time, the trade barriers have been reduced worldwide as many countries have entered into unions that enable cross-border investments, which enhance foreign direct investments (FDI).

According to Tetlow and Stojanovic (2018), the UK is one of the biggest recipients of FDI among major advanced countries, with about 50% coming from the Netherlands. However, leaving the European Union (EU) has significantly affected the UK's economy, leading to a decline in its attractiveness to foreign direct investment. This departure from the EU has resulted in the loss of key benefits, including the free movement of capital, the single market, and the ability to attract experts from different countries.

Free movement of capital: Investors are encouraged due to free movement. As EU member states invest in the UK with ease because it is in the single market, it creates a platform where exports are done freely without huge taxes. It attracts experts from different countries in the UK to migrate, transact, expand, and develop other ideas without any fear of excessive taxes or levees.

Despite the current economic environment, which may seem weaker compared to the UK's historic performances, it is important to note that it is in line with the economy's average productivity growth since the recession. This resilience is further evidenced by the fact that UK customers have remained relatively robust in their spending growth (KPMG, 2019).

United Kingdom's societal life varies and is influenced mainly by education, wealth, and occupation. A study by BBC News (2013) argued that these factors are too simplistic, suggesting that class have three dimensions: economic, social and cultural. The study measured finances as income, savings, and house value, while the social is the number and status of people you know. However, culture was measured as the extent and nature of

cultural interests and activities in the country. The new classes are listed as the Elite, established middle class, technical middle class, new affluent workers, traditional working class, emergent service workers and precariat or precarious proletariat.

Social life in British society has changed significantly since the 2nd world War (Savage, 2007). A shift towards a service-dominated economy, mass immigration, change in gender equality and a more individualistic culture have impacted the social landscape (Savage, 2007). Technology is regarded to be at the heart of the UK economy. It plays a crucial role in driving growth across the country, from financial services to high-value manufacturing, retail, and agriculture. The UK business environment offers an excellent atmosphere for global technology companies. Its technology economy has a robust electronic system, communications, data management and analytics, data centres, cloud services, artificial intelligence, cyber semiconductor design and sensors (Bank of England, 2019).

The high growth of digital firms is renowned for the new global products, speedy innovation, job creation and rocketing turnover.

According to Chowdhury (2018), the UK technology sector has continued outperforming the rest of Europe, attracting $7.9bn in venture capital investment while Germany at $4.6bn and France at $4.4bn respectively. The figure shows that the technology industry has shown 75% higher productivity than the rest of the UK economy, which has continued to demonstrate that the UK digital sector is the digital powerhouse, attracting more money and investment than any other European country. These success stories were attributed to the unique combination of experts, location alongside the business-friendly environment, excellent access to capital and a world-class learning environment.

The researcher also took account of the changed competitive environment of retail banking, which has resulted from the globalisation of finances and technological development. Advances in CRM provide examples of how this environment has changed.

1.6 AIM OF THE RESEARCH

In planning this research, the author was mainly concerned with the practical implications. The UK banks play a very vital role in the UK economy, as all other businesses and sectors depend on the financial services that the banks provide. Providing a channel for saving and investment, retail banks have significant benefits for consumers and the entire economy. Technology has played a significant role in customer relationship management. Customers are why banks open their doors for businesses, and that is why retail banks find the most

suitable way to relate to their customers. Technology has made things more accountable, trackable, profitable and easily reached. However, the complex societal challenges, differences, and uncertainties associated with human beings make it impossible for technology to capture all the needs for complete customer relationship management.

The study's main aim is to explore technology's impact on customer relationship management in UK retail banks over the last 40 years and the implications for the future. The researcher proposes that the impact is determined by a. the evolution of technology, b. the responses of consumers, c. responses by the retail banks in their CRM strategies, d. The researcher triangulates these responses with comments and critiques by independent observers. Therefore, the main aim of this study is to explore the potential of technology on CRM in UK retail banks and its impact on CRM.

1.7 RESEARCH OBJECTIVES

To address the questions, the researcher examines the evolution of technology associated with CRM current technologies and in the future, evaluates customer and retail bank responses, and evaluates the assessment of independent observers.
Therefore, to meet the aim and research questions, the following objectives are pursued;

1. To analyse the evolution of technological advances related to customer relationship management in UK retail banks over the last 40 years.
2. To compare the three perspectives: the customers, the bank and the independent observers.
3. To identify and evaluate the impact on customers and the bank's reputation in the future.
4. To identify and evaluate the success of CRM from 3 perspectives.
5. To identify new technologies on the horizon and the future Perspectives.

1.8 RESEARCH QUESTIONS

The research questions were described in the second paragraph above, and it is useful to remind the reader that this research attempts to find answers to the main research question.

How have customers responded to the new technologies adopted by retail banks in the UK over the period (1980 -2020), and what are the implications for the future? The following sub-questions are introduced to systematically answer the research question and achieve the research aim and objectives.

Q1: How has CRM technology in retail banking evolved over the last four decades?

Q2: What has been the level of customer acceptance and technology usage?

Q3: How does it impact the overall customer experience compared to traditional customer service?
Q4: Concerning Q1 – Q4: How successful has technology introduced in CRM implementation in these banks?
Q5: What are the prospects for the future?
These questions are asked from 3 perspectives: customers, selected banks, and independent observers.

1.9 RESEARCH METHODOLOGY

It is beneficial at this stage to introduce the reader with an overview of the research approach, the aims, research questions, and objectives, which are detailed in Chapter 3. The author has expanded her empirical work by adapting her research to web-based methods and responding to the examiner's valuable comments. The methodology statement in the doctoral thesis outlines the theoretical and empirical methods to be used. In line with the DBA's philosophy, the author places a significant emphasis on the practical impact of the research, which will inform and enlighten the reader about its relevance and applicability.
The response to the research questions will identify the impact and potential of technology in CRM. The main research question and the sub-questions set out above concern new technology. The researcher, therefore, deemed it fitting to utilize data sources from the digital age, the internet, underscoring the modernity and relevance of the study. It will also establish the significant success of introducing CRM technology in UK retail banks. Determining further progress will enumerate various changes, give a sense of accomplishment, expose customers' challenges, and clear every doubt.

1.10 SCOPE OF THE RESEARCH

This study, uniquely focused on retail banks in the United Kingdom (England, Wales, Scotland, and Northern Ireland), aims to provide a fresh perspective on the industry. The UK, with its rich cultural heritage and innovative environment, is a fertile ground for financial institutions that play a crucial role in real economic growth and development.
Building on earlier research, the researcher has strived to enhance the study in response to the examiner's constructive feedback. The scope of the research is delineated into two subheadings: a review of the earlier research and the advancements made upon it.

Outline of the earlier research
In this research, a survey was carried out among retail bank customers, including Barclays, HSBC, Lloyds, Nat West, Santander, Halifax, TSD, Royal Bank of Scotland, Nationwide, Metro Bank, Tesco, and Sainsbury, as well as all other retail banks in the UK.
The research explores the data in three domains: the customers, the banks and the independent observers.
Questionnaires were used to collect primary data from the banks' retail customers for this research with an online account (Google Forms) for questionnaire distribution. Certain boundaries were created to ensure eligible respondents attended to the questions, and certain restrictions were enabled. The responses from the questionnaire were coded and decoded using numeric characters and labelling—a statistical instrument like bar chat, frequency distributions and percentages for the analysis.

Advances upon the earlier research
This study supplements the primary data with web-based research, leveraging advanced research methods to access expert data from the bank's database and gain an unbiased view from independent observers.
The researcher explored Web-based research methods involving consultancy reports, the bank's annual reports and websites, and news media sites to get an expert view of the research topic. It is considered Web-based secondary research because it is textual information, making it more qualitative. Therefore, qualitative content analysis describes clustering and categorising non-numerical data systematically. Qualitative content analysis is widely used to analyse secondary data such as social media sites, review sites, discussion forum sites, articles, views, letters and diaries. The researcher has proposed using web-based

resources like consulting reports such as Statista, McKinsey's, KPMG, financial service authority (FSA), OpenAI, different news websites, and article blogs on banks' technological innovations on CRM.

It will explore the hidden populations, allow the opportunity to explore different experts' views and create more balanced information, reports from customers, the bank's side of the views, and independent observers that enhance data accuracy.

It will allow the researcher to learn what has been written about the topic in the past, and the research gap will be identified in the process. However, it also allows the researcher to add to the body of knowledge.

1.11 SIGNIFICANCE OF THE STUDY

The researcher hopes the discussion above informs the reader of her assessment of the study's significance. Financial institutions face challenges in today's financial landscape, including intense global competition, evolving customer expectations, reduced profit margins, and economic fluctuations such as inflation and recession. To navigate these complexities and remain competitive, banks must prioritize customer satisfaction and loyalty, recognizing that their success depends on meeting and exceeding customer expectations.

Customer Relationship Management (CRM) has emerged as a pivotal strategy for banks aiming to thrive amidst these challenges. According to Kohli and Maurya (2018) and Chatterjee et al. (2024), CRM is not merely a tool but a comprehensive strategy designed to identify, target, acquire, and retain customers by enhancing their overall experience. By leveraging CRM, banks can better understand customer needs and strategically build and sustain relationships through tailored products and valuable services. As Giannakis-Bompolis and Boutsouki (2014) articulated, CRM encompasses a holistic approach that fosters customer acquisition, retention, and collaboration, thereby generating superior value for the institution and its clientele. Integrating technology into CRM practices, as highlighted by Navimipour and Soltani (2016), has revolutionized the way banks interact with customers. Technological advancements enable institutions to gather comprehensive customer data, monitor performance, and customize communications, products, and pricing strategies.

Despite its advantages, CRM technology adoption has its challenges. The complexities inherent in human behaviour and societal issues limit CRM systems' effectiveness. Moreover, using technology in CRM raises critical concerns about data privacy, security, and ethical considerations, which demand careful regulatory and ethical scrutiny.

This study is significant as it aims to explore the dynamics of CRM in the context of general retail customers, focusing on their acceptance of current technological innovations in transaction processes. By assessing the associated risks, benefits, and challenges of technology-driven CRM, this research provides valuable insights into how banks can effectively leverage technology to enhance customer relationships while navigating the associated regulatory and ethical issues. Understanding these factors is crucial for banks to refine their CRM strategies, address customer concerns, and achieve sustainable success in an increasingly competitive and technologically advanced market.

This research contributes to the body of knowledge by developing a unique conceptual framework that visually represents and clarifies the relationships and interactions of CRM technology's impact. It also significantly contributes to practitioners by providing helpful advice promoting safety and confidence when using CRM technologies.

1.12 STRUCTURE AND PRESENTATION OF THE STUDY

Chapter One: Introduction

This chapter introduces the research by explaining its purpose, motivation, and relevance. It provides a background to the study and the problem statement and outlines the research aims and objectives. Additionally, it highlights the significance of the study and details the research environment. The chapter also delineates the scope of the study, the research structure, and the logical flow of the research. Overall, it serves as an overview of the entire research, setting the stage for the subsequent chapters.

Chapter Two: Literature Review

Chapter Two delves into the theoretical underpinnings of Customer Relationship Management (CRM), including its technological evolution and customer adaptation. It lays the foundation for the conceptual model elaborated in Chapter Three. This chapter reviews existing literature on CRM from various perspectives and dimensions, exploring different CRM technologies and their applications in the banking sector. It covers fundamental CRM definitions, its development in banking, types of CRM, and notable success stories. Additionally, it examines recent technological advancements in CRM within UK retail banks, discusses associated risks, and introduces the concept of social CRM. This chapter also identifies gaps in the existing literature and sets the stage for the conceptual framework discussed in Chapter Three.

Chapter Three: Research Methodology

This chapter details the research methodology, including the design and strategy employed. It begins with an overview of common research approaches used in social sciences and explains the chosen data collection methods and their rationale. The chapter introduces the empirical technology adoption model used by the researcher, encompassing data from customers, banks, and independent observers. It also highlights the challenges encountered during data collection and the solutions to them.

Chapter Four: Presentation of the Data

This chapter presents the data analysis from both the preliminary and extended research phases. It systematically organises and describes the data collected, providing a clear view of the findings and trends observed.

Chapter Five: Discussion

Chapter Five focuses on interpreting and analysing the data. It discusses the results and findings in the context of the research questions and objectives. The chapter explores the impact of technology on CRM, drawing insights from the data and linking them to the theoretical framework established earlier.

Chapter Six: Conclusion and Recommendations

The final chapter summarises the research's key findings and their contributions to existing knowledge and literature. It presents the study's overall conclusions and offers

recommendations for future research and practical applications. This chapter also discusses potential future developments in CRM technology and its implications for the banking sector.

1.13 LOGIC OF THE THESIS

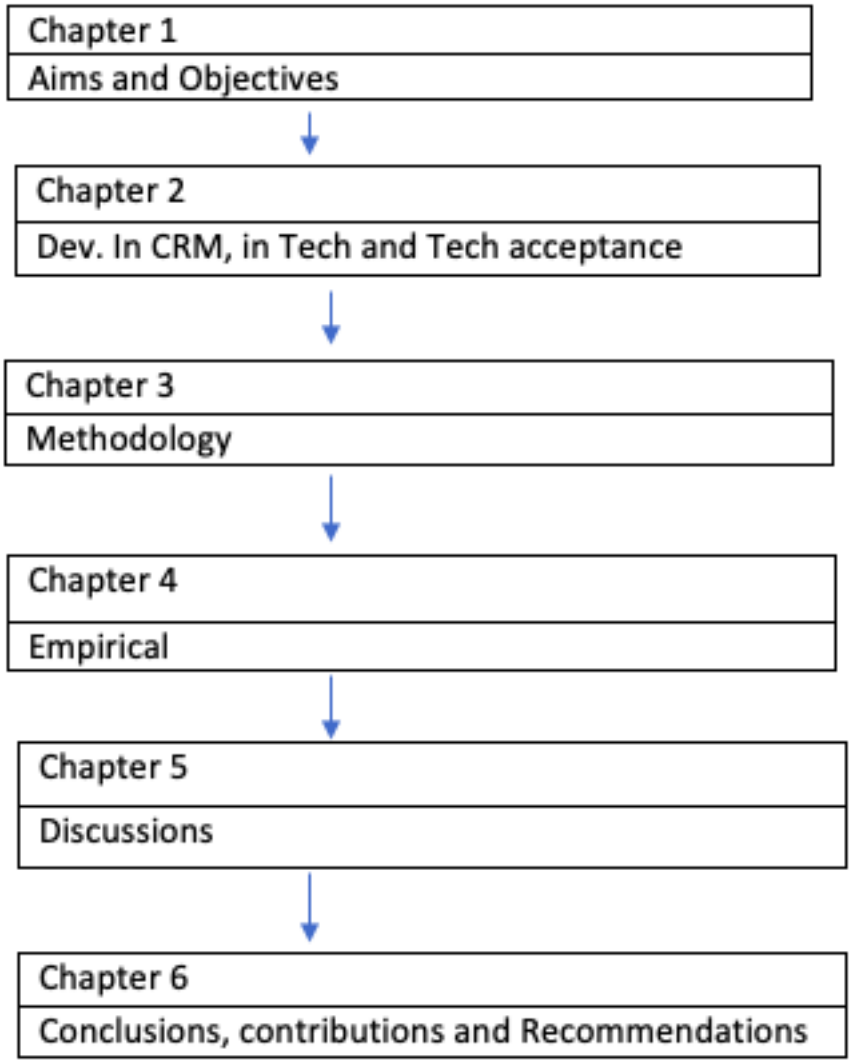


Figure 1.2: Logic of the thesis By Researcher

CHAPTER TWO: LITERATURE REVIEW

2. INTRODUCTION

In this chapter, the researcher undertakes a comprehensive review of the literature relevant to the research aims and objectives set out in the introductory Chapter. Over the past four decades, there has been a significant transformation in customer relationship management within UK retail banks, driven predominantly by advancements in technology. This literature review aims to explore the historical evolution, current practices, and potential future directions of technological impacts on CRM in the UK retail banking sector.

To achieve this, the review is structured into four distinct parts:

1. Introduction to Retail Banking in the UK: This section provides a foundational understanding of the retail banking sector in the UK, outlining its structure, key players, and operational dynamics.
2. CRM Development: Here, the focus shifts to the evolution of CRM practices, exploring how CRM strategies have developed over time and their role in enhancing customer interactions and satisfaction. Technological Development: This part examines the progression of technology and its integration into CRM systems, highlighting key technological milestones and their implications for retail banking.
3. Technology Acceptance Model: The final section reviews the TAM, providing insights into how and why new technologies are adopted by the banks and the impact on CRM practices.
4. Additionally, this thesis incorporates two conceptual models. The first model illustrates the overall logic and framework of the thesis, while the second model, a Venn diagram, that is well explained in Chapter 3. Presenting these models at this juncture is crucial, as they underpin the structure of Chapter 3 and facilitate a clearer understanding of the subsequent analysis.

By systematically reviewing the literature across these four areas, this chapter aims to provide a thorough context for understanding the dynamic interplay between technology and CRM in UK retail banking.

PART 1.

2.1 INTRODUCTION TO RETAIL BANKING IN THE UK

2.1.1 RETAIL BANKING

The Banking Sector in the UK, a significant player in the global financial landscape, has traversed a series of developmental stages over five centuries. This historical journey, from the accumulation of gold stocks as the first banking activity in the UK to the present day, is a testament to the sector's resilience and adaptability (Rathnayake, 2016).

Banking in the UK started as far back as the 17th century through the 18th, 19th, 20th, and now 21st centuries UK banking sector and plays a vital role in intermediation, channelling funds from the surplus units to the deficit units (Casu et al., 2006; Werner, 2016). However, according to Warner (2014), three distinctive banking theories exist. The oldest one is credit creation theory, which maintains that each bank can individually create money out of nothing through accounting operations and does so when extending bank loans and credits. At the same time, the second theory is called the fractional theory, where the banking system as a whole can collectively create money. Hence, each bank is a financial intermediary collecting and lending deposits. The third and most recent theory is called financial intermediation, where banks channel funds from the surplus units to the deficit units (Stein, 2014).

In this research, the author focused on the period 1980 to 2020, which saw the onset of the information age and an explosion in digital technologies, often led by the financial sector following the spate of deregulation in the early 1980s.

2.1.2 EVOLUTION OF TECHNOLOGICAL DEVELOPMENT

Before the 80’s	The first Automated Teller Machine (ATM) was introduced in the UK in 1967 (Batiz-Lazo et al.,2008). With the introduction of computing in the UK banking sector, customer services were significantly improved. In 1975, personal computers were introduced into the banks, money transfers were automated, and more transactions were available (Console, 2005). Again, the banks flourished due to takeovers and mergers that were going on, and it resulted in the Big Five, which includes Barclays, Lloyds, Midland, National Provincial and Westminster (Rathnayake, 2016). In 1976, the Bank of

	England's supervisory role was increased by the Banking Act, thereby giving the Bank of England more control (Rathnayake, 2016).
1980 - 2000	The UK banking sector began soaring in all aspects of banking activities, and operations were improved. Therefore, technology has tremendously helped enhance customer relationship management in retail banks. It has increased the way and method customer information is collected, tracking the performance of these customers and their buying behaviours and then personalising communications, products, services and even the price of the products (Navimipour & Soltani, 2016). The advancement in technology and automation has increased in more sophisticated ways retail banks can utilise the understanding of their customer's buying behaviour; therefore, it helps to tailor the products and services to fit the customer's needs (Yang, 2012). The technology moved on to telephone banking, the file transfer protocol making non-payment service easier, wide use of the internet, and different debit cards were introduced (Consoli, 2003). New issues like the security and reliability of information processing became vital. As technology growth continues, fraud risks and money laundry increase (Raja,2008).
2001-2020	The UK retail banks witnessed increased transactions due to the introduction of technologies. According to Consoli (2005), automated information processing, communications and complementary applications fostered specialization in the market. Overall, the emergence of cyber security and internet security as technology progresses and the full potential of technological capabilities have facilitated high-speed data communications and database integrations (Samakovitis,2012). Banks are now using AI to detect fraud, voice recognition and machine learning capability improvement, using the full potential of the cloud, while customers are now making inputs on how they want their transactions (Imran, 2022). This era saw increased capabilities, such as ATMs, which now receive cashed deposits and make transactions like fund transfers, cheque processing, and payment of other transactions like flight ticketing and bank statements

	(Samakovitis,2012). As this development continues, less emphasis on branch banking or face-to-face transactions has forced banks to close many branches in the last five years (Shaw, 2019). It created the cashless economy that relies more on self-service than visiting the bank branch for any advice.

Table 2.1 Historical technological development By researcher

2.1.3 HISTORY OF CRM TECHNOLOGIES IN RETAIL BANKING

A look at retail banking technology history and the future is essential to this research as it will give the background of various technological innovations. Fintech (2020) states that the first-ever electronic fund transfer was in 1918 in the USA, while the UK Bank of Scotland made history with its first-ever electronic banking in 1985. The debit card was launched in 1966, and the first-ever automated teller machine was installed by Barclays Bank in 1967, which saw the great transition from analogue to the digitisation of finances. CRM has evolved over the years, driven initially by an inside-out focus through three phases of evolution: technology, integration and process (Hair,2003).

It is worth noting that point of sale (POS) has its history back to 1880 when it was used as a cash register fast-forwards to electronic (Sorensen, 2021). IBM launched the PC-based POS. Microsoft developed the Windows system in the 1990s, while the Cloud-based POS system was introduced in the UK in 2002, revolutionizing the industry by enabling remote access and data storage. As many systems have integrated Cloud-based technology (Sorensen,2021), the system's mobility and flexibility were increased by making the mobile POS and advancing to wifi-enabled machines and wifi-enabled card transactions.

Banking has undergone more changes in the last few decades, all down to technological improvements. Mobile banking emerged in the 1990s as a text message interface (SMS) and has transformed into using smartphones and advanced to today's quick response code transactions (QR). A survey by Deloitte (2018) found that mobile banking transactions constitute 58% of banking transactions, including online transactions on a mobile device (Srinivas & Ross, 2018). The future, bright and promising, lies in artificial intelligence. AI will not only protect all the technology in place but also continue to push the boundaries of what is possible in banking.

2.1.4 TYPES OF BANKS IN THE UK

The UK banking sector has many operational banks. These banks fall into different categories. Each category offers services ranging from customer services to business services. While some banks are tasked with monetary policy, others provide retail services, some offer business services, and others provide investment services.

Considering the different categories of banks in the UK, Vaidya (2020) states that there are four major categories of banks in the UK thus:

Bank of England, also known as the Apex Bank, is responsible for creating monetary policy and maintaining the financial stability of the UK. It is the UK's central bank and is revealed to be the eighth oldest bank in the World (Kenton, 2019). Similarly, the high street banks mainly provide retail services to the general public. According to Kagan (2019), high street bank "refers to large retail banks with many branch locations." These banks are not explicitly focused on any customer or market; their services cover many customers and markets. High street banks are widespread, having locations in any commercial sector in any town (Kagan, 2019).

Furthermore, Kagan (2019) states that these high-street banks typically offer various banking services. Kagan (2019) highlighted that these services include savings, online banking and mortgages. Online banks offer their services to customers virtually without having physical branches where customers can visit for services like account opening and documentation (Malyshev, 2021). There are user-friendly branchless banks like Monzo and Revolut that exclusively operate online and provide digital banking services.

Business banks offer banking services as additional services for a fee (Vaidya, 2020). They have physical structures similar to high-street banks; the difference is just in the ideas. These financial institutions offer investment banking services to individuals, corporations, and governments (Vaidya, 2020).

2.1.5 TYPES OF CUSTOMERS IN THE BANK

Bank customers are individuals or entities who deposit their money and utilize banking services. As noted by Pirvu (2004) and Dimitriu (2012), these customers rely on banks not only for depositing funds but also for various financial services, including earning interest, securing both temporary and long-term loans, and meeting various other financial needs.

Dimitriu (2012) further elaborates that bank customers are individuals and legal entities engaged in a business relationship with the bank.

Therefore, different categories of customers have additional requirements according to their business or personal needs, which allows banks to tailor their services effectively to their customers. By acknowledging the different requirements of both individual and corporate clients, banks can ensure that they provide appropriate and secure banking solutions. Understanding these distinctions also helps banks navigate the legal frameworks associated with different customer categories, fostering a reliable and trustworthy banking environment (Dimitriu,2012). An account relationship between one person opened in their capacity to enable transactions for personal use is individual customer. They are the only customers allowed to open a bank account and run it in their names for personal use (Ionescu, 2009). There can be situations where two individuals join to open an account in their names, such as family, husband and wife, and kids. Another type of customer establishment method is regulated by law (Dimitriu,2012). These regulations are constantly improving by the day to meet the demands of market development and complex environmental changes. They are; Partnership firms, limited liability companies, Public limited companies, Trusts, Clubs and societies.

2.1.6 MULTIPLE CONTACT CHANNELS OFFERED BY THE UK BANKS

In general, different categories of customers approach banks through other means or conduct their transactions in various ways.

However, before advancing information and communication technology, the UK retail banks' contact channel was branch banking, where customers queue up in the banking hall to receive their specific services. Contact channels offered by banks refer to the means through which customers can interact and receive services from a bank (Lloydsbank, 2023),. The UK banking sector has advanced in technology, and due to the advancement in technology, the UK banking sector has incorporated many contact channels to ease the day-to-day activities of the banks.

From the bank's perspective, an account becomes value-adding due to the number of customers' products and services, increasing transactions. A customer interacts with the bank through touchpoints such as visiting a branch, telephone banking, emails, ordinary mail, and the Internet (Lloydsbank, 2023). Banks use these touchpoints to interact with their customers as well. Banks will gain total incremental revenue and profitability through improved

customer retention, a more significant share of wallet and cross-selling opportunities when customers have used the touchpoint without any hitches (Hogan et al.,2004). Touch points are central aspects of service design (Clatworthy,2011). It is an essential part of service design and is considered innovative.

Visit a branch is the oldest contact channel commonly used for account opening, queries, and other transactions (Tamilmaran, 2016). Branch banking refers to a place, an office or a unit where all bank operations are carried out under one roof. It has a vital role as customers are met to seek different transactions ranging from their queries, complaints and compliments. Branch banking helps develop personal relationships with customers and enhances the management of a bank's customer relationships. It goes a long way to show that prudence, skills, and leadership in managing customers and relationships are seen in the branches.

Mobile banking refers to a wireless communication channel, usually mobile phones, to create customer value in banking transactions (Rahmani et al., 2012). This banking channel lets customers download application links to interact and perform financial transactions and other services in their banks.

Agwu and Carter (2014) also explain that mobile banking allows bank customers to perform their financial services via their mobile devices and may receive short message service for the transaction completed. Furthermore, transactions such as balance enquiries, interest rate enquiries, payment of bills, internet shopping, transfers to other accounts, and password changes can be performed via mobile banking. Mobile banking as a contact channel offered by UK banks has made financial services accessible and reduced costs to customers and financial service providers. This contact channel, which can be done at customers' homes, has reduced the dependency on infrastructures in physical or branch banks.

Telephone banking allows customers to speak directly with customer service representatives about account transactions, credit cards, and queries. Internet banking is another essential and modern way customers interact with their banks. Internet banking refers to the banking process that allows customers to conduct online financial transactions (Frankenfield, 2020). Technology-driven customers are migrating to Internet banking because of the convenience, speed, and online real-time banking services. This contact channel gives customers most of the services provided by branch banking. Internet banking offers various innovative services like account information and inquiries, fund transfers, bill payments, credit card services, debit card requests, chequebook requests, security passwords and pin changes, account

openings, and loan requests. Customers do not need to visit a bank branch to complete the most basic transactions (Frankenfield, 2020).

According to Kagan (2020), Automated Teller Machine banking is an electronic outlet that allows bank customers to perform basic transactions without the support of a physical banker. Banking through ATMs enables bank customers to carry out transactions themselves. These services include cash withdrawals, bill payments, and transfers between accounts and deposits (Kagan, 2020). Irrespective of the design of an ATM, there are basic components an ATM contains. Considering the essential elements of every ATM, Kagan (2020) revealed that every typical ATM has a Card Reader, Keypad, Cash dispenser, Printer and Screen. Kagan (2020) explained that the card reader reads the chip on the front of the magnetic stripe on the back of a card. The keypad is used to input information that includes the personal identification number (PIN) and the type of transaction. Furthermore, the cash dispenser dispenses bills through a machine slot connected to a safe; hence, the printer prints a receipt for the customer. Similarly, the screen issues quickly guide the customer through the steps to perform a transaction.

Email allows customers to send and receive emails from banks. These emails can contain advice, information, queries, and directions. Traditional methods used letters and flyers sent to home addresses to communicate with banks' customers.

2.1.7 IMPORTANCE OF CRM IN UK BANKS

Excellent customer relationship management helps businesses focus on selling and keeping their customer happy instead of scrambling to keep in contact with all the customer information (Bauer, 2017). It also helped organise large customers' data so that businesses could further optimise it. In the bank, the handling of public relations is essential and cannot be overemphasised (Gregory & Halff, 2017). In essence, CRM assists banks in acquiring more new customers, maintaining a good relationship with customers, and providing new products and services to their customers. The significance of customers to any business's success and the consequent need for companies to manage customer relationships to satisfy customers' needs and encourage them to repeat purchases (Abdou et al., 2012). However, in the UK, while the banks work very hard to repair their reputation lost in the last financial crises, new technologies have emerged that increase customer engagement. Therefore, customers become more connected and demanding with less forgiving (Al-Abed, 2017).

Consequently, research by Abdou et al. (2012) evaluated customers' perceptions of CRM benefits and suggested that customer satisfaction and loyalty are crucial factors. Furthermore, organisational success depends on the organisation's ability to assemble relevant customer data and be committed to positioning customer satisfaction at the centre of the organisation's objectives (Huang & Lai, 2012). Banks now target customer satisfaction by deploying CRM systems (Rostami et al., 2014). Customer satisfaction in their narrative means that if the customers are happy with the bank's services, they will repeat their transactions with the bank. Furthermore, when an existing customer is satisfied with the bank's service, they may refer other new customers to the bank. On the other hand, if dissatisfied, they may lose potential customers. Customers need to be satisfied with the bank's products and services. As such, banks need to offer top service quality to their customers to keep them happy (Rostami et al., 2014). Even though it is an intangible activity, when customers of a bank are satisfied with the services offered to solve their problems, there are more chances of such happy customers being retained.

The success of any bank is dependent on its customers. Banks need proper CRM approaches/techniques to satisfy their customers. Banks usually practise collaborative relationships with customers to maintain their huge number of customers and make them satisfied and loyal simultaneously (Ali, 2015). When the banking sector of any country thrives well, the country's economy grows steadily (Jokipii & Monnin, 2013). Modern CRM targets customers' preferences and buying patterns to get the right products and services they need at the correct times (Owolabi et al., 2013). For example, in Europe, the bank is a significant employer of labour. This can be observed from the 2018 records indicating that about 2.7 million people in the European Union are employed by banks (EBF, 2020).

In 2019, banks in the UK contributed £39.7 billion in taxes, about 5.5 per cent of the UK's total taxes (UK Finance, 2019). This indicates that the banking sector in the UK contributes significantly to the UK's economy.

2.2 CRM DEVELOPMENT

2.2.1 CUSTOMER

Every business's essence of existence is based on creating value for customers in goods or services regardless of business-to-business customers or business-to-customer environment (Kumar & Reinartz, 2018). A customer is an organisation or a person who might be interested in purchasing a product or service or has purchased the product or services

(Tanner,2017). Businesses spend a lot of time and money trying to delight customers with fresh, innovative and more appealing products, though customers make most of their purchases automatically (Lafley & Martin, 2017). They look for what is familiar and easy to buy. In most businesses today, where CRM has become a priority for most companies, customers are considered the central elements of all marketing actions (Keramati et al., 2010). The essence of the necessity of customers in business is arguably the reason for the vast expenditures on the company's CRM applications and many customer retention measures. Regardless of the organisation's size, Keramati et al. (2010) stated that businesses in the UK spend billions on CRM applications and customer orientation every year. Customers have continued to be a critical part of all business. It has also increased in importance as all profit generated is down to customers and their contributions. As rightly stated by Itani et al. (2019), an increase in customers for a business varies directly from an increase in its worth.

In the banking sector, the most competitive advantage lies in fostering trust and commitment between customers and the bank (Andersen et al., 2006). This has led to a significant shift from transactional banking to relational banking. Relational banking, which is more focused on customer relationships, has gained widespread acceptance and is seen as more competitive in the banking sector (Santouridis & Tsachtani, 2015).

Understanding the different types of customers is crucial in the realm of business. Customers can be categorised into three types: potential, current, and past. As explained by Peck (2013), this categorisation places customers in different domains or ladders. At the top of the ladder is the partner, a part-owner of the business, followed by an advocate who actively recommends the company to others and supports the business. The supporter is someone who likes the business and supports it positively. The purchaser is next, which means someone who has patronised the company, and finally, the prospect, who is a potential customer.

In today's business environment, customers are privileged as they have vast choices of high-quality products and services at exceptional prices and a more significant input (Hill & Brierley,2017). In business, whenever a customer is satisfied with the product and services provided, the customer becomes loyal to the development and services; hence, customers' loyalty drives business performance (Hill & Brierley,2017). Delivering value to the customer more effectively than the competitors has been a challenging task. Today, products and services are increasingly inter-twine as the competition is increasing globally; therefore,

delivering value to customers is not as it used to be (Pynnönen et al., 2011). It is a lot more challenging, innovative, technological and online in real-time.

2.2.2 RELATIONSHIPS

Relationships are not new and integral to any business worldwide (Luo,2007; 2013; O'Malley, 2014). As marketing theory developed over the years, its roles facilitated rational utility-seeking decisions within a competitive market, and relationships did not feature within discourse (Wilkie & Moore, 2003). In the 80s, business relationships emerged and captured the attention of scholars (Payne, 2012). Relation in business is the connections between firms that engage in business, which includes the relationships between different stakeholders (Kenton, 2019). The author explained that stakeholders are relationships between employers and employees, employers and business partners or investors, businesses and suppliers, and businesses and customers. According to Quinton and Wilson (2016), using technology and digital communications technologies has reshaped the working practice of business relationships. The reliance on relationships to business-to-business or business-to-customer relationships is not new, nor is the acknowledgement of the role of technology (Jap & Mohr,2002). Indeed, internet-based communications like social media within business relationships have increasingly relied on technology and have generally transformed the impact of relationships (Quinton & Wilson, 2016). Culnan et al. (2010) echoed how social media networks create value in business through the voluntary interactions of community members and meaningful relationships built through these ties.

2.2.3 MANAGEMENT

It includes the ability to plan, organise, monitor and direct individuals. Management requires using resources and people's guidance to reach a specific organisational objective (Anastasia, (2017). It involves achieving the goals and fulfilling a clear organisational purpose through economic and effective planning and regulations.

A manager's primary role is characterised by consistency to effectively and efficiently implement the organisational goals by planning, organising, managing, and controlling the corporate resources (Da Costa & Bogdany, 2013). As a matter of practice, managers serve several essential purposes in an organisation and are recognised as having a substantial impact on the overall success of the workplace (Lennox, 2013). Successful leadership embodies a complex set of skills and abilities. Management and leadership training programs

also serve as potential catalysts influencing individuals' perceptions, philosophies and approaches to management (Schraeder et al.,2014).

2.2.4 CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

The history of CRM relates to marketing, which was targeted only at production efficiency, cutting operational costs, and the ability to sell products and services at a lower price (Nguyen & Mutum, 2012). The shift in the marketing paradigm included customer relationship management principles.

CRM can be traced back to the 1970s when business units became more customer emphatic than a product. According to Juneja (2020), this needful business perspective is believed to have birthed CRM. It was based on shielding the customers, fostering or acquiring new customers and creating value for all customers. However, in the current business environment, the integration of CRM with high-end technology has changed business settings. It has become the core of gathering customer information and managing the data to tailor to customer needs (Juneja,2020). It is believed to have increased the bottom business lines, reduced the cost of production, and increased customer satisfaction and loyalty. According to Owolabi et al. (2013), CRM is a business-wide strategy directed at acquiring customers, retaining customers and effectively providing value to customers to grow their businesses over a long period. Its concept involves a lot of technology integration and market strategy to effectively achieve and improve the relationship between customers and the business. A more modern CRM system enables the business to seamlessly incorporate all business activities to design a unique method to handle specific customer needs. This is vital to customer satisfaction and an enduring competitive advantage (Owolabi et al., 2013; Kumar, 2018). Businesses and organisations need customers, so CRM must be emphasised (Vaslow, 2018).

Customer satisfaction has been achieved over the years by adopting CRM approaches. According to Abdou et al. (2012), CRM encourages customers to repeat transactions with businesses and organisations. Profit maximisation is usually the main target of CRM. This can only be achieved if customer interactions and behaviour is adequately managed (Ali, 2015). Many researchers have defined customer relationship management; Dyche (2002), in his books, defines CRM as an infrastructure that creates the delineation of and increases the value and the correct means by which motivated customers to remain loyal. According to

Jiang (2003), it provides the customer with a good experience and creates a suitable contact for businesses to manage the relationship with their customers. Similarly, Bradshaw and Brash (2001) define customer relationship management as a management approach that enables businesses to identify, attract, and increase the retention of profitable customers by managing good relationships with them. According to Gruber and Svensson (2012), businesses use CRM to analyse and improve their performance, which helps meet customers' needs and demands.

The CRM definitions that best describe the current research in the banking context are: According to Giannakis-Bompolis & Boutsouki (2014), Customer relationship management is a strategy and process of gathering, maintaining and reaching out to some customers to create value for the benefit of the customers and company. It involves marketing, sales, customer service, and the business's supply chain to create greater efficiencies and effectiveness. Customer relationship management is a business strategy that recognises, entices, develops and retains a successful customer relationship for a long time to improve and maintain a profitable customer (Bradshaw & Brash, 2001; Navimipour & Soltani, 2016). CRM comprises a set of processes and enabling systems supporting a business strategy to create profitable long-term relationships with specific customers (Ling & Yen, 2001). The key objective of CRM, they say, is to improve customers' value through a better understanding of each customer's needs and preferences.

According to Krishna and Ravi (2016), customer relationship management is a customer-centred business strategy that allows every company to improve its customers' dealings and satisfaction by personalising the products and services. Bhat and Darzi (2016) viewed customer relationship management as a process that helps businesses understand their customers. It is a vital part of segmentation and enables them to target the right customers and keep them happy. Companies are searching for a competitive means of interacting with their customers and endearing them (Javadi & Azmoon, 2011).

The business environment operates in an external and internal environment that controls competitive sustainability (Rahimi et al., 2018). Within that circumstance, it is crucial to create and sustain a healthy and beneficial relationship with the stakeholders, which the customers are vital to the success. In order to achieve a certain standard, every business has to strive to meet the competitive challenge of the business, where quality will be the propelling force, and the main focus will be satisfying customer expectations (Rahimi et al., 2018).

Customer relationship management has become a critical business approach focusing on understanding customers' desires and needs. It is achieved by bringing these needs to be a vital part of the business by integrating them into the organisational focus (Erdi & Ozturkk,2016). Customer relationship management is a managerial process that most companies use to achieve competitive advantage (Mekkamol et al., 2013). According to Siddiqi (2011), customer relationship management is a philosophy that considers customer loyalty an essential strategy for long-term business competitiveness and profitability.

Moreover, to achieve customer loyalty, any business must shift its target from only getting new customers to retaining existing customers by researching their needs.
Therefore, according to Gavgani et al. (2015), CRM is a marketing strategy that includes technology, processes and business activities around customers' demands. In comparison, technology in CRM systems represents an entire process of building and maintaining profitable customer relationships by delivering standard value services to customers and ensuring that customers are satisfied with such services (Soltani & Navimpour, 2016). To keep the balance in CRM, customer satisfaction and the delivered services must be consistent and of a high standard. According to Soltani and Navimpour (2016), it is the most efficient customer relationship creation and maintenance method.
In their research, Soltani et al. (2018) stated that managing the interactive process between a business and its customers is one of the utilisations of CRM. So, CRM's approach is to analyse information about customers' history while focusing on retaining customers and engaging in sales growth (Soltani et al., 2018). In summary, according to Sakuntala (2018), CRM goals include building a long-term profitable customer relationship with chosen customers and exploring all necessary avenues of getting closer to all other customers. CRM has four primary dimensions: marketing, sales, support and customer feedback (Amin & Khan, 2019). At the same time, Kumar (2018) explained that CRM has four strategic capabilities, knowledge and insight, technology, process, and people. Explain further the technology he said enables the desired functionality of CRM, the skill, abilities, and attitudes possessed by people responsible for initiating CRM.
Any method the organisation sets to fulfil CRM objectives is called the process. Knowledge and insight ensure stronger tides and a deeper relationship between the firm and its customers. Knowledge is also essential in identifying the approach for dealing with customers at different times (Gorden, 2002; Kumar, 2018). Similarly, CRM is defined as working with relationships between customers and businesses. However, it aimed to maintain

customer patronage and get more new customers by constantly providing superior and quality goods in a competitive fashion that satisfies customer needs satisfactorily.

Customer relationship management is perceived as the demand and response of new technology and a more competitive environment. In the ’80s, relationship marketing was embraced as a way for marketing units to get to know their customers by understanding their preferences to retain them (Peck et al.,2013). At the same time, it was said to focus on cultivating and developing a long-term, mutually profitable relationship between the business and the customer. However, in the late 90s and early 21st century, customer relationship management replaced relationship marketing with tools and techniques that automated the approaches (Payne, 2012). The principal idea behind CRM was that with the help of the latest technology, all customer interactions in the business would be recorded.

In the early 1990s, customer relationship management became a big business concept that was widely accepted and gained a prominent and distinguished area of research inquiry with global business interest (Navimipour and Soltani., 2016). CRM has evolved over the years to the point where it aims to increase business profit, improve customer satisfaction and loyalty, and reduce certain costs.

Customer relationship management has continually evolved with the help of technology and the social media explosion, and businesses have continued changing how they interact with their customers (Choudhury & Harrigan, 2014). Customer relationship management is crucial to business competitiveness (Navimipour & Soltani, 2016). In every company with a customer base, their customers have needs and expectations, which have to be considered by the management by identifying those needs and expectations, hence adopting a means of having a proper relationship that will customers meet expectations (Bahrami et al., 2012). Similarly, Sakuntala (2018) viewed CRM as a business approach to understanding and influencing customer behaviour through relevant communication to enhance customer acquisition, retention, loyalty and profitability.

2.2.5 TYPES OF CUSTOMER RELATIONSHIP MANAGEMENT

Many researchers have presented different views on which type comprises the best CRM mechanism. For example, Khodakarami and Chan (2014) gave three different types of CRM: operational, analytical, and collaborative. Research by Dyche (2002) emphasised operational and analytical CRM more. Moreover, research work from Buttle (2009) viewed customer

relationships in four types: functional, analytical, collaborative, and strategic CRM. Similarly, Kumar (2018) presents CRM in four styles: active, analytical, collaborative and E-CRM. However, a recent study argued that there are only three types: functional, analytical and collaborative (Danyel, 2020; Johnson,2020).

Operational CRM suggests it assists the business in managing day-to-day activities like sales and customer service (Bauer,2017). It is also the most common CRM type utilised in different businesses. It helps to automate sales and all the processes. The operational CRM can handle all sorts of customer communication and manage everyday sales, marketing strategies and customer service operations (Spotio, 2019). It also streamlines business processes, which includes automation of sales, marketing and service (Danyel, 2020). It also generates leads, tries to enable such tips into contacts, captures all required details and assists customers' life circle. Rasheed (2019) argued that operational CRM focuses on the software application that helps to incorporate the various sets of information available to each customer, like putting together customers' contact information, purchase history and other communications.

Operational customer relationship management aims to automate the process to improve efficiency and productivity (Khodakarami & Chan, 2014). In similar research by Rababah et al. (2011), the active type of CRM deals with customer process automation and streamlining workflow at the front desk, which involves data collection, processing transactions and controlling workflow. Operational CRM is about process automation, which is divided into three parts: marketing automation, sales automation, and customer automation (Mosadegh & Behboudi, 2011). It operates in different dashboards to provide essential information about the customers, customer details, past sales, previous marketing efforts and a summary of the relationships between customers and the business (Hayley,2016).

Analytical CRM builds operational CRM and analyses customer data to create information about customer segments, customer behaviour and value of the organisation using statistical tools like data mining (Rababah et al., 2011). Tanner et al. (2005) stress that it analyses the customer and market-level data and provides the insight necessary for businesses' strategic marketing decisions. While Analytical CRM, according to (Khodakarami and Chan (2014), aim at understanding the individual customer's behaviours and needs.

Analytical examines the customer data obtained from different touchpoints of operations.

CRM generates customer profiles, identity, behaviour patterns and service levels to get more insight into the organisational status (Owolabi et al.,2013). It facilitates customer behaviour

predictive model and purchase pattern recognition, incorporating different analytical methods and tools, including data mining, data warehousing and other online forms. Similarly, according to Rasheed (2019), analytical CRM looks at the customer's data, analyses it, and develops better sales and marketing strategies that will effectively use the platform to acquire information about the customer's shopping patterns and trends. According to Bauer (2017), it makes it easier to manage the process of all customer acquisition and retention and keep track of the customer's details. However, it has three essential functions: customer acquisition, retention and data management. The primary function of analytical CRM is data analysis, which provides better knowledge for the command to make better decisions concerning their business. The administration can effectively understand campaigns, and sales executives will increase sales while supporting personnel to improve the quality of customer relationships (Danyel,2020). Therefore, the critical features of analytical CRM are collecting customer data from different channels, analysing the data and performing indicators, and improving the CRM system, which will help manage the business, sales, marketing and support other customer relationships and loyalty (Spotio, 2019). Customer data collected through different channels is analysed to see a specific pattern, trend, and vital details that enable the business to make a better decision (Hayley,2016).

Collaborative CRM manages and integrates communication channels, customer interaction, and touchpoints such as the company website, e-mail, customer portals, and web conferencing (Khodakarami & Chan, 2014).
This type of CRM helps share information about sales, customer service, marketing and general organisational culture (Johnson, 2020). The purpose of collaborative CRM is to incorporate external stakeholders such as suppliers, vendors, and distributors and then share information across the business, increasing customer trust and confidence (Hayley,2016). However, according to Bauer (2017), the research viewed collaborative CRM as a process that will improve customer experience. Making vital and beneficial information available not only strengthens the relationship that holds the business but also keeps the customers happy. According to similar research by Rababah et al. (2011), collaboration focuses on customer integration by using a set of interaction channels while working intimately with selected customers, suppliers, and business patterns. In business, there are many customers, though every customer differs. According to Gujrati (2016), analytical CRM was introduced to maintain good customer relationships in the industry. It depends on a business's marketing and sales function as they are the primary sources that give the business insights about its

customers. It has advantages like customer segmentation and promotional effectiveness analysis (Gujrati, 2016).

Strategic CRM creates a customer-centred business culture where better value is made over the competition by deciding where to invest the organisation's resources (Rababah et al., 2011). As a business strategy, CRM is more of a comprehensive business and marketing strategy that integrates people, technology, processes and all other business activities around customers and their interests (Hosseini et al., 2010). CRM has equally been viewed as an essential part of the business that integrates technology and human efforts to manage business relationships with customers or stakeholders (Law et al., 2013).

According to Buttle (2009), strategic CRM is focused on developing a customer-centric business culture. The author further argued that such a business culture reflects the leadership behaviour, the design of the formal system, and the myths created within a business. It enables resources to be allocated where they best enhance customer value and rewards and where they promote employee behaviour to improve customer satisfaction and retention.

2.2.6 BENEFITS OF USING CRM

The significant advantage of CRM is that it helps businesses and organisations improve their relationship with their customers while attracting new customers and bringing back old and dissatisfied customers (Aiyer et al., 2018). Due to the latest technology in CRM, information and communication, and even the wide acceptance of media have allowed the market to become even more accessible to customers (Abu-Shanab & Anagreh, 2015). It has put pressure on organisations and created a chance for competition between organisations to satisfy demanding customers. That means that long-term relationships with customers are essential.

The essence of any business is to acquire as many customers as possible and keep them very happy (Aiyer et al., 2018). The importance of any marketing is centred on customer acquisition (Keramati et al., 2010). Recently, companies have spent huge sums on CRM applications because it is vital to sustaining any business organisation (Aiyer et al., 2018). This is further emphasised by Keramati et al. (2010), who state that UK business organisations spend billions of dollars acquiring CRM applications and customer orientation yearly. CRM is used to analyse and improve companies' performance with the aim of satisfying customer demands and needs (Gruber & Svensson, 2012). Gavgani et al. (2015) showed that good CRM improves organisational effectiveness. Furthermore, once

organisational effectiveness is achieved, service quality will improve. Again, this leads to customer satisfaction and loyalty (Gavgani et al., 2015).

Recently, CRM has been viewed as to use of dedicated information technology to assist effective CRM. When proper management of all the processes between customers and an organisation is adequately analysed based on the historical data generated, customers will be retained, and sales will be improved (Soltani et al., 2018). Sakuntala (2018) explained that lately, a customer makes decisions to patronise an organisation based on the relationships such organisations have with the customer. As such, the customer can make a positive or negative remark about their experience. In establishing these relationships, customers maximise profits over a lifetime (Sakuntala, 2018). The four primary areas of CRM are marketing, sales, support, and customer feedback (Amin & Khan, 2019). These four areas are all concentrated on how to make and keep the organisation's customers satisfied.

An accurate CRM in any organisation has the advantage of having an accurate and timely vision for each customer (Wang & Feng, 2012; Akturan & Tezcan, 2012). CRM is based on how thriving organisations establish good customer relationships. This good relationship usually keeps these customers satisfied and loyal to such organisations for a lifetime.

In summary, bank customers want their banking to be straightforward, offer several options, provide responsive customer service, and be better understood. They expect significant value from their financial products and services (Aditiawan et al., 2006). The proper deployment of a CRM system can better achieve this.

2.2.7 ROLE OF CUSTOMER RELATIONSHIP MANAGEMENT

At the initial stage of marketing campaigns, it was aimed at increasing customer loyalty because it was perceived that when a customer is loyal to a particular product and service, they will engage in a repeat purchase and hence tolerate the price, therefore making the organisation profitable (Kumar and Reinartz., 2018). Having a suitable customer base and reaching out to them with the desired customer service at the right time using the correct medium is very important for any business to outperform its competitors and remain in business (Abu-Shanab and Anagreh., 2015).

Customer relationship management has increased the management approach that many businesses, especially service-oriented ones, adopt to retain and create more value for their customers amidst the competitive environment (Saelee et al.,2015). Customers do not need

just regular services; they need that wow effect; hence, it can be possible by adopting technology in customer relationship management (Bhambri et al., 2012).
However, it has been proven that a very loyal customer may repeatedly inquire about the best practice and price and search for the best rebate and sales offer available, thereby becoming an actual cost in the end. However, an essential part of customer relationship management is tracing the different types of customers and creating specific products and services that will meet their expectations (Kumar and Reinartz., 2018)—for instance, creating good relationships with profitable customers, locating and attracting new once, developing an appropriate strategy for the unprofitable customers. With the help of customer relationship management, every company tends to create an environment and flexible business support that can solve innovation issues and increase customer expectations on products and services, globalisation, and new technologies (Kumar & Reinartz, 2018).
Customer relationship management is a crucial strategy for attending to not only customer-related issues in an organisation but also three specific concepts with key integrated areas: sales, marketing and customer service (Aher and Bhakkad., 2011; Abu-Shanab and Anagreh., 2015). CRM plays a vital role in ensuring that front-office applications increase customer satisfaction, create customer loyalty and increase profit in the long run (Nadeem, 2012). CRM has gradually been accepted to increase improvement abilities and create an extended competitive environment (Lin et al., 2010). In any business, they must learn how to align their process, structure, strategy, and people to utilise the abilities to get customers' information and use the information successfully (Da Xu,2011; Khodakarami & Chan, 2014). This information gathered will help them take absolute control and transform the data into useful information (Chen, 2014). It will, however, benefit both the business and the customers as the information collected will be used better to understand the customer buying behaviour, trends and preferences.

2.2.8 IMPACT OF CRM ON THE CUSTOMERS

CRM is an example of a business process that integrates people, processes, and technology to understand an organisation’s customers and manage their customer relationships to maximise customers’ experience (Lau et al., 2016). Using these technologies has helped banks gather information about their customers, track their performance and online behaviours, and tailor communication, products, and even prices (Navimipour & Soltani, 2016).
Amid this competitive environment, the banks have developed different technologies that will help to optimise customer relationship management and boost their customer experiences

(Bansal & Jain, 2018). Consequently, business success is, in part, dependent on the ability to not only assemble relevant information on the perception and the requirements of their customers but also to be committed to positioning customer satisfaction at the heart of their corporate objective so that the business can identify opportunities, discover and analyse challenging areas and implement strategic adaptations.

Today's bank customers are more aware of and enlightened about the expectations and the level of services the bank can offer (Abu-Shanab & Anagreh, 2015). They constantly compare the services they get from their bank with those of other banks, thereby benchmarking with the best practices or expectations.

A customer is a final product or service consumer; therefore, the behaviour involves a psychological process that an organisation must go through to identify the needs (Abu-Shanab & Anagreh., 2015). It is vital to make a plan, interpret the information and carry out the plans by comparing the different types of products. Usman et al. (2012) said that consumer behaviour is a crucial factor that defines consumer intention to accept or reject new information about a product. Getting in touch with the right customer with exemplary service at the appropriate time is critical for the business to outperform its competitors and survive in the market (Abu-Shanab & Anagreh., 2015; Tarhini et al., 2015). Customers, however, need more than satisfaction; they need delight from getting something above standard service by utilising technology in CRM (Bhambri et al., 2012).

2.2.9 CUSTOMERS ENGAGEMENT AND VALUE CREATION FOR CUSTOMERS.

Over the years, things have changed dramatically in the sales cycle and how businesses engage with their customers (Pennington, 2012). Traditional CRM focuses on managing customers and their relationships to stay ahead of the competition. However, the attention is shifting to helping build more robust and better relationships by assisting the employees in engaging with their customers to develop and strengthen relationships (Pennington, 2012). Value creation occurs through the integration of resources in the interaction between customers (Gronroos & Voima,2012). Due to its dynamic and interdependent network nature, value creation is best understood at the level of service systems rather than the individuals (business) or the actors (customers) (Lusch & Vargo, 2014). During the last two decades, the banking business has changed dramatically. Technological developments have enabled the industry to create more and more value for its customers.

The evolution in technology has made customers more connected to the information they seek more than ever. There is a shift from managing customer relationships to customer engagement, where the business can engage with their customers at that moment, which matters most instead of following your internal process (Schuller, 2016). The report states that customers are hyper-connected and need more time to save. Therefore, data is the fuel for customer engagement, and pulling together all the relevant information in real-time is critical. The interactive nature of social media with the ability to establish conversations among individuals and businesses in the communities of sellers and customers are involved in content generation and value creation, which has excited businesses and their stakeholders with the potential to serve the customers better and satisfy their needs (Sashi,2012). Vivek et al. (2012) focused on customers' participation in the activities related to a business by acknowledging the cognitive and practical elements of engagement. Hollebeek et al. (2014) define *engagement* as a customer positively attracted to a business, emotional and behavioural activity during or related to focal interactions and propose it has three dimensions: cognitive processing, affection and activation. According to Gambetti et al. (2012), Marketers emphasise the role of social context and focus on the ability of brand communication to evoke effective responses and co-creative experiences. However, another author stressed that engagement results from delivering meaningful messages, resonating with customers, making them passionate about and getting them involved with the business (Smith,2014).

In this area of customers and media, their behaviours have appeared due to digitalisation and have inspired businesses to start looking for ways to engage with their customers, friends, and followers (Moran et al., 2014). It is perceived that the majority of traditional CRM has significantly helped in managing relationships on a large scale; however, they were not sufficient in the effort to effectively build a stronger relationship of mutual trust between seller and buyer, a one-to-one, peer relationship (Giannakis-Bompolis & Boutsouki, 2014). Woodcock et al. (2011) emphasised that businesses should build a relationship of mutual trust on the social web to be well aware of the customer. Customer engagement emerged from a single construct.

It comprises trust, commitment, loyalty and advocacy (Sondhi et al., 2017). An all-encompassing construct was needed to explain the dept and the nature of customers' responses (Bowden, 2009). This customer-centric approach led many researchers and practitioners to explore new and, at other times, tried and tested the paradigms from other disciplines to devise differentiated methods. Engagement thus includes confidence, integrity,

pride and passion in a brand. Verhoef et al. (2010) state that customer engagement needs to be recognised as an overarching construct that captures non-transactional customer behaviour. Successful customer engagement typically leads to customers doing one of these four actions; responding to a campaign, purchasing a product, remaining a customer, and recommending the product to families and friends (De Beule, 2013).

While Van Doorn et al. (2010) define customer engagement as a motivational driver, it involves creating deep connections with customers that drive purchase decisions, interactions and participation over time. Sashi (2012) defines customer engagement as an approach that focuses on providing customers with great value compared to the competitors. Thisactivates the customer's engagement cycle, builds trust and commitment, and ultimately builds emotional satisfaction and enduring customer relationships. Shiri et al. (2012) focused on the aspect of the construct to define customer engagement as the intensity of individual participation in and in connection with an organisation's product, services, and activities that either the customer or the organisation initiates. Chen et al. (2012) state that customers who are engaged with the organisation and indulge in what they termed as user-experience sharing are open to co-creation and partnership. Some studies explore customer engagement to understand which factors might influence customer acceptance of banking services (Jham, 2010) while identifying the facilitators and barriers to adopting engaging and interacting with the bank better (Kalaiarasi & Srividya, 2013).

While new technology in consumer management platforms, options are limitless for businesses that want to understand, predict, and monitor customer engagement levels, not just transactions (O'Dell, 2015). The four suggested types of customer engagements, according to O'Dell (2015), are as follows;

Contextual engagement is usually possible through technology that helps to understand an individual customer's behaviours historically and in real-time.

Arrangement of convenience: This is again a type of technology businesses use to monitor the customers' usage of their products and services, increasing comfort. For example, Amazon recently launched a dash button that customers can attach wherever they store and use a particular household item. However, customers can press the dash button and deliver the products without delay when running low on them.

Emotional engagement: Historically, emotional bonds have drawn customers to particular products and are tied to some colours, images, messaging or personal memories and experiences.

Social engagement: When customers have a good experience with a brand, it is easier for them personally to share it through social media channels.

In this business environment, technological advancement and extreme competition are coupled with the outburst of product choices and the increasing number of informed customers (Islam & Rahman, 2016). It has allowed businesses to engage with their customers at all possible touchpoints. Customer engagement creates, builds, and enhances customer relationships (Brodie et al., 2013). It is considered a strategic means to make a sustainable competitive advantage (Van Doorn et al., 2010). Customer engagement is also seen as having the potential to affect customer satisfaction (Brodie et al., 2013), customer loyalty (Hollebeek, 2011), business performance and reputation (Dijkmans et al., 2015; Vivek et al., 2014). The initial studies on customer engagement discussed two types: customer participation in innovation and new product development and the role of the customer in inducing other potential users to interact with the brand of their choice via referral programs, word of mouth and different types of customer to customer interaction (Brodie et al., 2013; Kumar et al., 2010). According to Jaakkola & Alexander (2014), these two types of customer engagement are co-developing behaviour and influencing behaviour. Research has also demonstrated that different forms of customer engagement can occur in an online setting, brand communities, social media, blogs, and offline environments (Jaakkola & Alexander, 2014; Brodie et al.,2011).

Co-developing behaviour

It can be defined as customers contributing to resources such as knowledge, skills, and time to facilitate the focal development of a business offering (Jaakkola & Alexander, 2014). It means customers are involved in co-developing the business products and establishing critical factors contributing to thriving creation and service development (Carbonell et al., 2009). Co-develop may include providing ideas for new products and services, participating in design contests and development competitions, and serving customers panels or as members of the innovation team (Nambisan & Baron, 2009; Edvardsson et al., 2012). A typical example of this kind of customer engagement is my “Starbucks idea”. The idea is to invite customers to suggest ideas for developing and improving Starbucks’ drink and food assortment, service experience, and community involvement. The business can successfully use its customer’s resources to benefit its product development but still retain ultimate control of the extent to which customers’ resources will be utilised when developing the offering (Jaakkola et al., 2015). Some studies have it that many customers engage in co-developing a product and service due to their dissatisfaction with the existing product; however,

they desire to enhance the development of products or services that will better fulfil their needs (Jaakkola & Alexander, 2014). Other research said financial rewards could motivate co-development, such as monetary prizes for winning development contests (Hoyer et al., 2010).

Influencing behaviour

Influencing the behaviour of customer engagement refers to when customers contribute to the resources such as knowledge, experience and time to affect the perceptions, preferences or expertise regarding the focal of the business (Jaakkola & Alexander, 2014).

Customer engagement has been recognised as non-transactional as customers can contribute in a brand range of resources, time, knowledge and actions that directly or indirectly affect the business and other customers (Jaakkola & Alexander, 2014; Brodie et al., 2013). Many researchers indicated that companies could positively facilitate customer engagement by providing effective engagement platforms (Breidbach et al.,2014). However, according to Harwood and Garry (2015), customer engagement is instrumental in understanding business interactions (Breidbach et al.,2014). The modern business environment is increasingly interconnected with actors no longer seen as part of linear value chains but existing in networks of service systems where interactions, collaboration, and experience sharing occur (Jaakkola et al., 2015; Laush & Vargo, 2014; Chen et al., 2012). In such a business environment, traditional boundaries between the roles of customer and provider are losing clarity, highlighted by the emergency of concepts (Caru & Cova, 2015). According to the study by Alexander and Jaakkola (2015) and Jaakkola and Alexander (2014), customers are not satisfied with the limited role of buyer, receiver, and user of a firm's offering at the end of the value chain. However, they proactively craft the offering according to their needs and wants and seek to engage with other stakeholders like communities, firms or government. Other customers in their service system contribute towards common goals. One example is customers rating products and services in various online marketplaces, placing their experiences of a brand, co-designing and innovating products and services and arranging boycotts against businesses perceived as not doing good (Caru & Cova,2015; Fuller,2010). The concept of customer engagement was introduced to capture the various customer's activities and behaviours beyond the traditional role of buyer and user role (Brodie et al.,2011; Van Doorn et al., 2010). Different researchers have reported that customer engagement behaviours have implications for value creation by the active customers, the focal firm, and other stakeholders in the service system (Brodie et al., 2013). However, customer engagement's implications have been viewed mainly in specific isolated settings

such as brand communities (Brodie et al., 2013) or from the angle of how the firms can manage it (Verleye et al., 2013). Customer engagement is viewed as a psychological state which results from the interactive experience between a customer and a business (Brodie et al., 2011; Hollenbeck,2011).

2.2.10 CUSTOMER RELATIONSHIP MANAGEMENT IN THE BANKING SECTOR

Over the past decade and a half, the banks have focused highly on CRM and are expected to continue due to market competition. CRM goes beyond the transactional exchange that effectively provides products and services to customers.

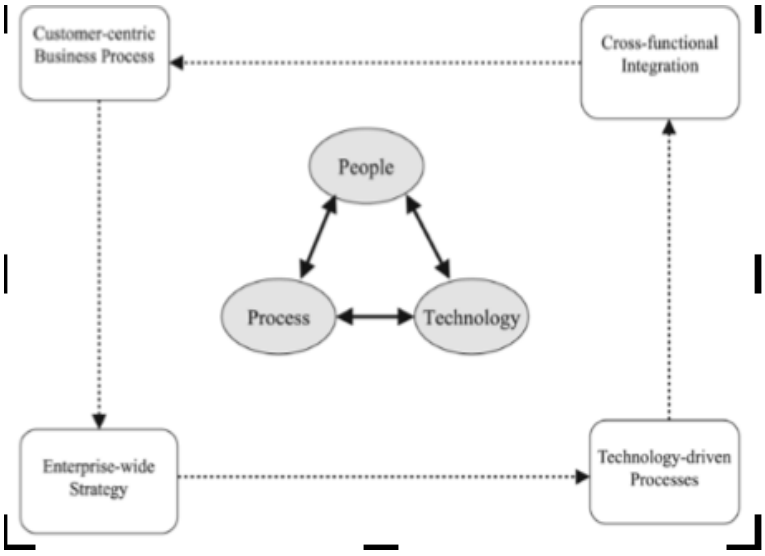


Figure 2.1: CRM implemented model

Source: (Chen and Popovich, 2003).

The CRM implementation model integrates an organisation's people, processes and technology. They noted that the people are usually the customers that generate data that assist CRM systems in profiling and predicting their purchasing patterns. The whole process of managing customers (people) is achieved via methods. Technology is usually needed in a CRM system to track and analyse customer behaviour to achieve a greater height.
It is a long-term relationship that uses advanced technologies and human resources to understand customer behaviours and gain maximum customer value (Aher & Bhakkad, 2011). Customer relationship management in the banking sector differs from other sectors because it is related to financial services, which require a higher level of trust in human interactions. It comes with creating excellent customer care support at the right time during

interest payment, issuing credit and debit cards, and relating to the maturity of time deposits and all other loan products. Information technology systems have helped banks to organise and integrate scattered customer information and provide a compelling customised customer picture, which has led to the rapid development of internet technology (Chung et al., 2012). Adapting and maintaining a sound CRM system in the bank can build a long-lasting relationship with customers and generate more revenue and profit (Abu-Shanab & Anagreh., 2015). However, they advised that banks should recognise the strategic role of CRM and diversify the need of different customers. According to Muro et al. (2013), banks need to hire professional employees to deal with the complexity of the CRM system and make it work efficiently. Many businesses are merging CRM concepts and knowledge management to serve their customers better and utilise their information more effectively (Alhawari., 2014; Abu-Shanab & Shihadeh, 2014). Others consider CRM technology to be one of the Internet banking applications and explore it based on this perspective (Singh & Sirohi, 2014). Banks using CRM technology will make them more profitable by keeping their existing customers, reducing their costs and increasing the value of interaction (Rouholamini & Venkatesh, 2011).

The study by Ali et al. (2019) stated that using CRM systems in the banking sector helps the business (that is, using technology and human resources) to gain a great deal of insight into the behaviour of customers and focus on the value of those customers. A later study by Mittal et al. (2019) proclaimed that banks must leverage technology to increase market penetration, improve efficiency and productivity, deliver cost-effective products and services, offer faster operations and transactions and provide unparalleled convenience through different delivery channels.

When the bank has implemented technology in CRM initiatives, their customer identifies them to have provided the following: personalised service, which results in more convenience, accuracy, more complete and up-to-date information through using various channels and the ability to contact their central banks from anywhere in the world with different communication channels. To maintain and improve their brand image, banks must adopt new technologies, strengthen their competitive advantage and continually improve customer relationship management (Agariya and Singh., 2012).

The most critical benefit of CRM implementation is that customers can identify the increased convenience they receive (Gupta & Mittal, 2013; Sajjadi et al., 2015). Implementing CRM in the financial institution has brought several competitive advantages for the bank and the customers. Miremadi et al. (2012) identified the five competitive advantages as preparation

of up-to-date technology, banking systems, the proliferation of channels, marketing opportunities and customer segmentation. According to Keshvari (2012), banks compete for the implementation of advanced electronic media to attract and retain customers by satisfying their needs, understanding what they require, and figuring out what is most valuable to them. Banks, however, use CRM technology to connect with their customers and access their information, improving their loyalty (Usman et al.,2012).

Some of the CRM techniques that allow customers to interact and communicate with their banks are as follows (Kumar & Malik, 2013; Mishra & Padhi, 2013);

Internet banking helps the customer to have online real-time access to the product and services and get detailed and undiluted information about the bank.

Telephone banking helps the customer get knowledge about the bank product and service through mere phone calls. It will equally give them information about their transactions like bank balances, withdrawal alerts and deposits.

E-mail service is considered one of the most effective and efficient means of communication with customers. Bank uses it to inform their customer of various communication and developments. It equally enables a detailed and recorded response from customers.

Mobile banking helps banks combine telephone and internet banking to provide convenience to customers by conducting their transactions on their mobile phones.

2.2.11 FACTORS THAT INFLUENCE CRM

In the world we live today, the different demands from customers have continued to increase due to the explosion in the use of technology (Foltean et al.,2019). These additional demands have created a necessity for a business to realise that the competitive advantage cannot be achieved only by making or developing product varieties and reducing its price. It also has gone ahead and affirms that businesses need to shift from a transactional approach to a relationship approach. It could mean that customer-centred companies, creating more varieties of products and reducing prices, need to adopt CRM for business development. Research has studied the negative and positive influences of CRM adoption and the theories responsible for influencing CRM adoption. According to Lai (2017), these theories include reasoned action, planned behaviour, the technology acceptance model, and Roger's perceived attributes of innovation. Similarly, growing regulations in the financial sector have forced them to change their business model to lower risk levels, increase capital adequacy, improve

service quality, and have more stable revenue. Banks are especially subject to pressure from improved technology and social changes in customer relationship management.

A model that highlighted the attributes influencing customer relationship management adoption was analysed as innovation, organisation, and environment (Law et al., 2013). Hasani et al. (2017) stressed that the greater the level of relative advantage, compatibility and observability related to CRM, the higher the level of adoption. The lower the complex nature associated with CRM, the higher the level of adoption (Nyadzayo & Khajehzadeh,2016). The adoption of CRM in an organisation is also influenced by top management's attitude towards change, business factors, the market orientation of the business, innovation orientation and desire for customer intimacy as the influencing factors. Another research has identified relative advantage, cost-effectiveness, and top management support. Technology awareness and knowledge by the customers, government support and pressure from competitors are the widespread influences for adopting CRM (Ramaseshan & Kiat, 2008).

2.2.12 SIGNIFICANT COMPONENTS OF CRM FOR THE BANKING SECTOR

An ideal organisation like a bank comprises several essential components for the business. For example, management, sales/ marketing, training and business development, and customer services. Each component has a significant role in the success of the CRM system used in the organisation. To implement a successful CRM, banks apply policies and technologies to capture customers' information, store the data, and use the information to deliver customised customer communication that is consistent across all customer interactions (Lau et al., 2016). According to Taylor (2014), CRM components are sales force automation, human resource management, lead management, customer service, marketing, workflow automation, business reporting and analytics.

Similarly, Purcell (2017) stressed that banks integrating CRM with their core system has become essential in best practice as it gives them the power to pinpoint channel preferences instinctively and proactively anticipate service needs for every individual. They are real-time insight, a holistic view, and universal.

CRM allows the bank to provide a holistic view of all interactions that have built a relationship between the bank and the customers, which includes information from the core system to be available in real-time and every second. It gives the bank employees the confidence to speak intelligently about the customer's account and assist them with correct and personalised information. According to Mark (2019), customers are now quick to adopt

real-time payment in many countries because they offer additional convenience and functionality, improving efficiency and compliance and creating new services for customers. It is all about building long-term relationships with customers. Banks should educate their customers about their institution and products to see higher returns on investment. Customers are more aware of their choices than before. Banks know their customers, understand their needs, and work professionally with technology to provide seamless services (Ginovsky, 2013).

2.2.13 SOCIAL CUSTOMER RELATIONSHIP MANAGEMENT

Social customer relationship management is a strategy that companies or businesses use to integrate their social media channels into the CRM to engage with their customers, build relationships and deliver personalised experiences (Geyer, 2022). In other words, social CRM helps to nurture and manage relationships between businesses and customers. According to Mai (2022), social CRM is managing CRM using social media tools and technology to build relationships with customers and prospects, engage them in a conversation and collect feedback.

It is also shown that it gives a unified look at your audience, which can enrich different aspects of business with the ability to monitor what people say on social media about the business brand, product and services (Geyer, 2022). Changing the nature of the company's approach to CRM may be a bit challenging for the customer service team; however, they understand how they will benefit from social media CRM, so they are motivated to embrace change (Newberry, 2021). Malthouse et al. (2013) noted that the rise in social media is challenging traditional customer relationship management as the customers are no longer limited to a passive role in their relationship with the business. With a vast of information available, it makes it easier for a customer to express and distribute their opinion to a large audience. As CRM has continued to evolve, social media technology has revolutionised how businesses and customers interact and relate (Choudhury & Harrigan,2014). Customers have changed the social ecosystem compared to the previous days when customers only contacted the business through letters, emails, physical visits and phone calls (Greenberg, 2010).

2.3 TECHNOLOGICAL DEVELOPMENT

2.3.1 TECHNOLOGY IN CUSTOMER RELATIONSHIP MANAGEMENT

In today's business environment, businesses have continually faced drastic changes in their business environment. It requires awareness of how the company is increasing in the global market and the competitive environment. Lau et al., (2016). Customer relationship management is a business process involving people, processes, and technology to understand the customers of their business, manage the relationships, and attain profitability. CRM is a development and response to changes in the business environment; hence, getting the correct customer information can maintain existing customers and improve the business bottom line (Ponduri & Bala, 2014).

Virtually every business owner wants to ensure that their customers are happy. A happy customer ensures that you have a guaranteed person to buy your products and services, which is the secret to business success (Guarda, 2017). Technology has helped the CRM streamline and be more effective, as it has tools that allow businesses to lower costs and increase revenue through customer relations.

Technology in customer relationship management enables businesses to gather information about customers, track their performance and online behaviours, and tailor their communications, products, and even prices (Navimipour & Soltani., 2016). The various technologies available have helped businesses implement the potentiality of customer relationship management by using advanced technological methods to collect customers' information and analyse it to provide the required products and services (Ponduri & Bala,2014). The latest technological improvement has progressively advanced how businesses understand their customer's buying behaviour and customise the marketing offerings to capture, in particular, each customer's need (Nguyen & Mutum, 2012). Some methods businesses can employ to gather information about their customers buying behaviours are to introduce bonus and loyalty programs, value offers, great deals, social media, websites, and internet blogging (Nguyen & Mutum, 2012). Technological advancement has increased the trend in the economy of service-oriented businesses. It has increased the changes in the customers' buying behaviour and lifestyle, making customers more demanding and advanced in their requests for products and services (Ernst et al., 2011). According to Trainor (2012), a marketing expert has defined social media customer relationship management as the combination of customers' activities, processes, systems and technologies to increase customer relationships, contacts, communications and engagement

through the application. Due to the vast potential felt in social media lately, businesses have invested remarkably in customer relationship management technology. Customers are now adopting social media applications like Facebook, Twitter, WeChat, Instagram, and LinkedIn to connect with their friends and families to communicate something about business via the medium (Hanna et al., 2011; Berthon et al., 2012). These new technologies and their abilities are changing how businesses communicate with customers. However, it enables more customer interactions (Andzulis et al., 2012; Trainor, 2012).

There is a shift in consumer behaviour, and all businesses must consider that to match the customer offering accordingly to utilise the key opportunities (Kumar and Reinartz., 2018). Customers have increasingly engaged in different social media and platforms with their friends, engaging in various lifestyles (Stewart, 2016). Businesses should become more proactive by tapping into this great opportunity to interact with customers on their chosen platform. This new type of customer behaviour has been observed to be the fallout of the current technological explosion in the world. It has inspired different businesses to start creating ways of engaging with customers and their friends (Moran et al., 2014). Customer engagement is a significant factor in customer relationship management, especially in the era of big data and digital media (Brodie et al., 2011). Technology in customer relationship management has appeared to be one of the most effective and efficient ways that allow businesses to have one-on-one interactions with their customers, enable them to collect their information, store the data and analyse the information to assist in providing a personalised product and services (Navimipour & Soltani, 2016). Customer relationship management technology collects information that could be used to develop a personal and unique relationship with the customer (Javadi & Azmoon, 2011). There has been a shift from a product-oriented to a customer-oriented business strategy. Customers are considered a significant business asset and a good resource of value to be managed during its life cycle (Heidemann et al., 2013). Fulfilling the customer's needs to improve the value for both the customers and the business has been made possible through electronic customer relationship management (Yu et al.,2015). However, the ability of a business to convert and combine information from various sources successfully (Khodakarami & Chan, 2014) depends solely on how the business structure, procedure and employee skills (Da Xu, 2011).

2.3.2 CONTRIBUTIONS OF CRM TECHNOLOGY IN THE UK RETAIL BANKING

In 2018, the financial services sector contributed £132 billion to the UK economy, 6.9% of total economic output. The industry was the largest in London, where 49% of the sector's output was generated (Rhodes, 2019). The UK financial services sector was the seventh-largest in the Organisation for Economic Co-operation and Development (OECD) in 2018 by its proportion of national economic output. Luxembourg's financial service sector was the largest in the OECD, contributing 26% of the country's economic output. Similarly, Exports of UK financial services with aided CRM were worth £60 billion in 2017, and imports were worth £15 billion, so there was a surplus in financial services trade of £44 billion (Rhodes, 2019). Rhodes (2019) reports in the House of Commons Library reported that in the first quarter of 2019, 1.1 million jobs were available in the financial and insurance sector in the UK. Those jobs accounted for 3.1% of all jobs in the UK. The number of jobs in the financial services sector has remained broadly steady over the past few decades. This is possible based on adopting technology for CRM in the financial industry.

They employ about half a million people yearly, significantly reducing unemployment. Banks in the UK also contribute £70bn to the UK's national output, which accounts for 6.8% of the UK's total gross domestic product. More so, banks' financial services in the UK contribute £8bn, accounting for 25% of total corporate tax paid to the UK government. The central retail banks provide over 125 million accounts, clearing 7 billion transactions and facilitating £2.3 billion in cash withdrawals from over 30,000 accessible ATMs yearly. About 95% of banking services are provided to indigenes of the UK by UK banks (Pettinger, 2019).

As UK banks deploy CRM techniques for positive customer relationship management, they also make substantial economic contributions to the UK.

2.3.3 EFFECT OF TECHNOLOGY ON CUSTOMER RELATIONSHIP MANAGEMENT

While technology continues to make a dramatic and profound impact in the service industry, like banks, which have radically reshaped how services are delivered, relatively little is understood about the effects of advancing technology on customers, their expectations, perceptions, and behaviours (Durkin et al., 2015).

Customer relationship management has made brand-initiated and linear marketing obsolete e as every company has shifted from the old communication strategy, which they realised has yet to meet today's customer reality (Maslowska et al., 2016). These empowered, enlightened, connected customers who are aware are not the audience that listens; instead,

they are the customers who observe and understand what is going on in the business environment; they are initiators, they are involved in the business, they are co-creators that interact with not only the brand but with other customers and even the media (Maslowska et al., 2016). This new shift in customer behaviour has resulted in digitalisation and has also inspired businesses to shift their strategy to create an environment that will engage customers and their friends (Moran et al., 2014). Internet technology has significantly affected the business environment and economy, creating a new revolution in this century where every business and its customers are online (Navimipour & Zareie, 2015; Nguyen & Simkin, 2013). Using the Internet has allowed businesses to provide products, services, and information to their customers to help the company better understand their customers' needs (Navimipour & Soltani, 2016). Customers can now, without any problems, use the Internet to access various information about different companies, and the data can influence their buying decision (Navimipour & Soltani, 2016).

Similarly, the company can use internet technology to collect customers' data and analyse the information to better decide on a more efficient marketing relationship (Mahdavi et al., 2011). Customer relationship management is a complete strategy and process that enables customer acquisition, retention, and collaboration to create superior value for the business and the customer (Giannakis-Bompolis & Boutsouki, 2014). It involves marketing, sales, good customer service and its supply chain function to attain efficiency.

The improvement and advancement in technology have propelled banks to adopt electronic customer relationship management to increase the number of beneficial and satisfying relationships with customers (Abu-Shanab & Anagreh, 2015). Good information system management is needed to create a quality and efficient business environment that can cope with constant changes and improvements in business practice.

2.3.4 CRM IN UK BANKS AFTER THE ADOPTION OF TECHNOLOGY

Prior to the advancement of technology, the bank was generally considered "a place with long queues and an unmanageable amount of paperwork." Before the revolution of technology, CRM tools were mostly programs that presented detailed customer information (Zuckerman, 2015).

Before adopting technology on CRM, banks in the UK issued banknotes that were usually handwritten to cover deposits and repayment of loans. Typically, banks in the UK operate

with few electronics, such as mainframe computers. These mainframe computers were mainly used for digitising customer data to facilitate searches and save paperwork (Zuckerman, 2015). The banking era without technology deployment was time-consuming, filled with paperwork and lengthy queues. It can be inferred that many customer care services were only done automatically after adopting technology in the banking sector.

The advent of technology has changed CRM in UK banks. Although technology has kept CRM's purpose the same, it now seeks to create more sales using customer data (Zuckerman, 2015).

To identify and examine the impact of technology, particularly information communication technology (ICT), on banks' performance and customer service delivery, Alhaji (2012) notes that the modernisation of ICT has set the stage for extraordinary improvement in banking procedures throughout the world in recent days. For instance, the development of worldwide networks has considerably decreased the cost of global funds transfer; this is equally passed to the customers, who are often relieved of the costs they could incur in transaction transfer. Berger (2003), cited by Aboelmaged & Gebba (2013), reveals that banks that are using technology-related products such as online banking, electronic payments, security investments, information exchanges, financial organisations, mobile banking, and many more can deliver high-quality customer services delivery to customers with less effort and fewer costs.

The milestones of technology in bank CRM have been the evolution of CRM software such as web-based applications, cloud-hosted technologies, social media applications, mobile technologies, and enterprise products (Zuckerman, 2015).

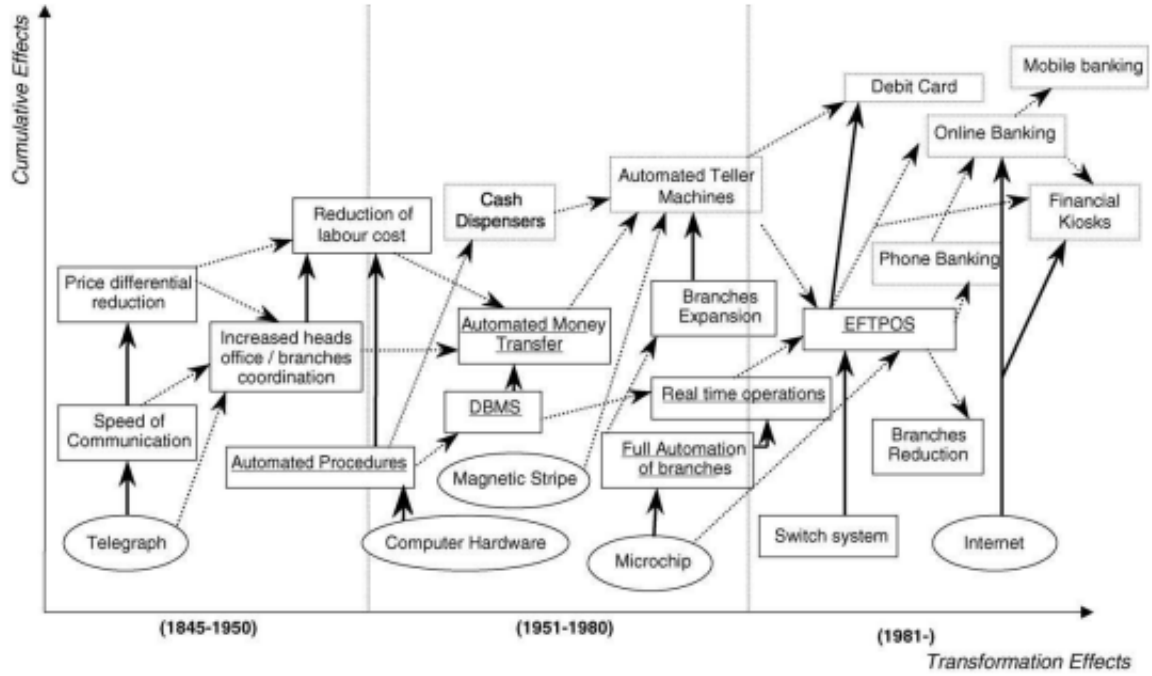
Technology has also aided banks in processing payments for online vendors, auction sites, and other commercial users using PayPal (Chen et al., 2017). With the utilisation of technology in the banking industry, banks utilise the payment card industry (PCI) to develop and enhance bank data storage and implement security standards for account data protection (Clapper & Richmond, 2016).

In supporting the idea that customers have experienced reduced operational costs since the technology was adopted by commercial banks, Akturan and Tezcan (2012) showed that the relationship between Information and Communication Technology and banks' performance has two encouraging outcomes. Firstly, technology can reduce the banks' operational costs (the cost advantage). For example, internet technology facilitates banks' procedures to accomplish standardised and low-value-added transactions such as bill payments and balance

inquiries via online networks. When these costs are low, the banking expenses for the customers go down, and finally, the customers are advantaged by getting affordable services conveniently. Again, with the aid of ICT, transactions between customers within the same network can be easily performed (Arora, 2003).

According to Bergeron (2004), CRM technology allows companies to offer the best customer services proactively while creating an extensive database of customer preferences. This reduces costs and improves employee productivity significantly (Bergeron, 2004; Malik & Wood-Harper, 2010). According to Foss (2002), banks in developed countries like the UK have invested in CRM-based data warehouses and other data mining tools over the years with the aid of technology. UK banks' models for CRM are customer-centric (Foss, 2002). Malik and Wood-Harper (2010) also stated that CRM in the UK allows each department to view customer account details depending on the department's job description. Technology and CRM are needed in almost all organisations due to their importance. Companies around the world spend millions on CRM implementation. CRM seems to be the best approach for increased revenues, and it focuses on bank customer satisfaction and retention (Malik & Wood-Harper, 2010).

The advent of technology in UK banks and the banking sector gave birth to several automated CRM methods. This technology aided customer relationship management, enhanced customer satisfaction, and increased patronage and bank profit margins.



Consoli, (2005)

Figure 2.2. Dimensional Evolution Of Technology In UK Retail Banking

2.3.5 DIMENSIONAL EVOLUTION OF TECHNOLOGY IN UK RETAIL BANKING ADAPTED FROM CONSOLI, (2005).

The historical evidence shown in the diagram above indicates that technology has progressively changed how customers access, interact, transact and relate with their various banks. The emphasis will be more from the 80's to the year 2020. The aim of adapting this diagram is to relate the immense innovation in which technology and customers' response to CRM technology have shaped retail banking.

The impact of technology in the banking industry has resulted in tremendous and remarkable improvements in the overall development of both the bank and the customers (Bezovski & Hussain, 2016). Computing has been a cornerstone in the evolution of technology within UK retail banks, fostering efficiency, innovation, and most importantly, enhancing customer experiences. It has fundamentally changed how retail customers deliver and access banking services (Sorensen,2021).

According to Bachir (2021), Technological advancements have enabled banks to leverage online monitoring and data mining techniques to enhance customer needs identification.

Computing made possible the integration of electronic Customer Relationship Management systems.

ATMs were introduced in 1967 and marked the beginning of a technological revolution that significantly enhanced customer transactions (Batiz-Lazo et al.,2008). It has continuously elevated the services provided by retail banks. Over time, ATMs have become a cornerstone of banking convenience, facilitating various services that have revolutionised retail banking Bátiz-Lazo, 2009. ATMs expanded their capabilities to encompass a diverse array of card-based services besides cash withdrawals. These advancements include Point-of-Sale (POS) transactions, contactless payments, online payments, and pre-authorised payments. The latest integration of ATMs with online payment systems enabled customers to conduct transactions remotely, accessing their accounts and making payments from anywhere with ATM card details (Consoli, 2005).

The evolution of ATMs has revolutionised the banking process and empowered customers with unprecedented convenience and accessibility in conducting a wide array of financial transactions. This technological advancement is considered a lower cost way of serving the customers, enhancing their banking experience (Walker and Morris, 2021).

The evolution of money transfers has significantly expedited the process of crediting account balances. Customers now experience immediate access to transferred funds, eliminating delays and providing instant value (Yang, 2012). This acceleration in fund availability has played a pivotal role in facilitating economic and business growth in the UK. At the same time, issues like the security and reliability of information processing became vital. As technology growth continues, fraud risks and money laundry increase (Raja,2008).

Consoli (2005) noted that from the ’70s to the ’90s, there were widespread retail bank branches all over the country. This expansion brought in a workforce comprising clerks, typists, and labourers, shaping explicit rules and delineating specific responsibilities within these branches. As time goes by, different specializations begin to open up as individual learning becomes stronger in certain areas.

On the other hand, in the Late 90s, technological capabilities began to ascend. The evolving landscape reduced the necessity for extensive staff as customers increasingly took on tasks independently. Retail banks, recognizing the potential offered by automation, shifted their focus. This pivotal moment led to an exploration of automated processes. Consequently, retail banks started witnessing closures and branch reductions as they embraced the efficiency gains promised by technology (Imran, 2022).

The advent of computing facilitated the development of online banking systems. Banks created secure websites and platforms that allowed customers to access their accounts, check balances, transfer funds, and perform transactions remotely in the early 1990s. However, in the 2000s, the enhanced card service even expanded the capabilities of online banking, giving it endless possibilities. Customers can open an account and manage all transactions without visiting a physical branch (Samakovitis,2012). This transformative shift enabled customers to transact globally, enabling them to engage in banking activities at their convenience, day or night, from any location with internet access (Samakovitis,2012). Beyond the conventional services of checking balances and transferring funds, online banking platforms evolved to encompass functionalities such as bill payments, investment management, loan applications, and real-time transaction monitoring (Shaw, 2019). These advancements provided customers with comprehensive financial control at their fingertips.

The concept of phone banking began to take shape during the 80s. It initially involved essential services like balance inquiries and fund transfers via touch-tone phones (Rahmani et al., 2012).

Banks started offering more comprehensive phone banking services in the 1990s, including bill payments, account management, and transaction history inquiries. Interactive Voice Response (IVR) systems became more sophisticated, allowing customers to navigate menu options using voice commands or keypad inputs. Agwu and Carter (2014) also explain that mobile banking allows bank customers to perform their financial services via their mobile devices and may receive short message service for the transaction completed.

Phone banking continued to expand in the 2000s, with banks enhancing security measures by introducing personalized identification numbers and voice recognition technology for authentication.

The advent of smartphones brought about a significant shift in banking habits, with customers finding the convenience of mobile banking solutions irresistible. As more advanced mobile phones hit the market, mobile banking gained even more traction (Frankenfield, 2020). Banks responded by developing dedicated mobile apps, offering a range of features from account management to bill payments, all at the fingertips of their customers. The investment in user-friendly interfaces and robust security measures, such as fingerprint and facial recognition, further enhanced the convenience. Features like mobile

cheque deposit and person-to-person payment options added a new level of comfort to the banking experience.

Real-time banking, often called online real-time payments or instant payments, represents a system where transactions are processed instantly or within seconds (Bauer, 2017). It emerged with electronic fund transfers (EFT) development in the early systems used for interbank transfers rather than consumer transactions.
In the 2000s, the European Union introduced the Single Euro Payments Area initiative to create a unified euro payments area. This led to the development of the SEPA Instant Credit Transfer (SCT Inst) scheme, which enabled real-time payments across participating European countries.
As online banking continues to evolve, Real-time banking has become increasingly widespread globally. It offers benefits such as enhanced convenience, immediate settlement of transactions, improved cash flow for businesses, and quicker access to consumer funds. More countries and regions continue adopting and upgrading their payment infrastructure to enable faster and more efficient financial transactions. It created seamless and instant payment experiences across borders and currencies, further transforming the landscape of banking and payments (Singh & Srivastava, 2020)

Retail banks in the UK have been at the forefront of the transition towards a cashless society, driving significant change through a series of innovative initiatives and technological advancements. Their proactive role has been instrumental in shaping the future of banking and payments.
Retail banks have actively supported and facilitated the transition towards a cashless society by providing convenient digital payment options, investing in technology, fostering financial inclusion, and promoting the advantages of electronic transactions (Wewege et al., 2020). Cash payment options are frowned upon, as other options not involving cash have been preferred in society lately, such as contactless payment, POS, online transfer, mobile transfer, ATM, and other forms of payment.
Moving towards a cashless society has environmental benefits, as it reduces the need for cash production, transportation, and disposal of physical cash.

Artificial Intelligence (AI) in the late 2000s has revolutionised the retail banking industry in the UK, offering innovative solutions in various banking operations. This shift from basic

automation and support functions to more sophisticated applications like voice recognition, predictive analytics, personalised services, and a stronger focus on enhancing customer experience while improving efficiency and security across banking operations is a clear indication of the customer-centric approach of AI in the banking sector (Mogaji and Nguyen, 2022).

Such as customer service, personalised customer interaction, fraud detection and security, biometric authentication, workflow optimisation, data management, risk management and compliance. AI's integration in banking continues to evolve, driving efficiency, improving customer experiences, and transforming traditional banking operations to meet the demands of a digital era (Northey et al.,2022). Still in technology and globalisation, Social media has transformed customer interaction and transactions in retail banking by providing channels for engagement and education, influencing financial decisions, and marketing opportunities (Ferm & Thaichon, 2021). It has enabled banks to offer more personalised services while catering to evolving customer preferences for digital interactions as customers tend to socialise online and share their opinions (Naeem, 2020; Naeem & Ozuem, 2021). It has significantly impacted how retail bank customers transact and interact, such as a shift in communication channels, customer engagement, community building, product awareness, educational content, marketing, and branding (Li et al., 2023).

Cloud technology has been a game-changer in the technological landscape of retail banks. It has provided a scalable, cost-effective, and secure infrastructure, enabling banks to adapt to market demands, enhance customer experiences, and drive operational excellence (Shatalova and Huseynov, 2021).

2.4 TECHNOLOGY ACCEPTANCE MODELS

Technology Acceptance Model (TAM)

The retail banking industry has witnessed a significant transformation in recent years due to rapid technological advancements. Traditional brick banks embrace digital innovation to enhance customer experiences, streamline their internal operations, and stay competitive in an increasingly digital world using all the innovative technologies. However, the success of these technological innovations hinges on the acceptance and adoption of such technologies by banks' customers. The researcher explores factors affecting technology acceptance in retail banking, the factors influencing customer acceptance and the implications for the industry with the Technology Acceptance Model (TAM) and related frameworks.

The technology acceptance model (TAM), introduced by Davis (1986), continues to be the most widely applied theoretical model in the efforts to explain how users accept the use of technology. According to Davis (1986), TAM is a widely recognised framework that explains adopting and accepting new technology. It posits that perceived usefulness and ease of use are critical factors in determining an individual's intention to use a particular technology. The model has been found to have predictive power for users' behaviour and has been used to guide the design and implementation of new technology. Perceived usefulness (PU) and Perceived ease of use (PEOU) are complementary variables that influence technology adoption (Lee et al., 2003). The two variables are essential when developing and implementing new technologies, as they can impact adoption rates and user satisfaction. Perceived usefulness is a stronger predictor of adoption. Still, perceived ease of use can reduce the time and effort required to learn how to use the technology. It can also increase the exploration of its features and functions, increasing its usefulness. (Lee et al., 2003). Customers are more likely to accept and adopt new technologies in retail banking if they perceive them as helpful in enhancing their banking experience (Marshall & Heslop, 1988). For example, online and mobile banking applications offer convenience, 24-hour access to their finances, and faster transactions, leading to increased perceived usefulness.
Similarly, according to (Pikkarainen et al.,2004), customers' perception of ease of use plays a crucial role in their acceptance of technological solutions. Intuitive user interfaces, simple navigation, and clear instructions contribute to the perceived ease of use, reducing the resistance to adopting new digital banking platforms.
Additionally, compatibility, security concerns, social influence, and trust have been identified as crucial factors influencing technology acceptance (Kamel & Hassan, 2006; Fawzy & Esawai,2017; Wang et al., 2020) Security concerns have been a significant obstacle to technology acceptance in retail banking. Customers must have trust in the security measures implemented by banks to safeguard their financial information and transactions with robust security protocols, data encryption, and transparent privacy policies are vital for building trust and fostering technology acceptance (Wang et al., 2020).

It examines the impact of perceived compatibility, security concerns, social influence, and trust on technology acceptance. Technology acceptance for retail banks implies that the banks understand customers' preferences and align technology offerings with customer's needs, enhancing the overall customer experience (Agarwal & Prasad, 1999; Wang et al., 2020). Acceptance of new technology in the bank can be influenced by the extent to which

customers feel that the technology offers personalised services. Therefore, banks leverage customer data and artificial intelligence to provide tailored, personalised financial insights and customised offers, enhancing customer experience and increasing technology acceptance. In contrast, Silva (2015) advised caution as TAM is widely proven to have high validity; however, caution should be applied to what extent the growing understanding of how people are affected by cultural factors can affect the ability of the multinational organisation to adopt and use information technologies (Wallace & Larsen,2014).

2.4.1 CUSTOMER KNOWLEDGE

Customer knowledge is a critical dimension of customer relationship management (Najat, 2017), as it is all about knowing the customers and providing them with the right product or service. It creates the theory that explains how gathering, managing and sharing customer information can be valuable in a competitive environment (Khodakarami & Chan, 2014). With customer knowledge, a company can provide first-class customer service, ensure customised products and services, and be far from aligned with its business processes and operations so that it will be able to forge a strong relationship with customers (Newman, 2017). Hence, customer knowledge is collecting, collating and using the data to serve customers directly or indirectly.

According to Martelo et al. (2013), customer knowledge is a capability that allows an organisation to integrate people, technology, processes, and strategies to create, utilise, and share knowledge. This includes the business's ability to acquire, convert, apply, and protect information (Tseng, 2016). Knowledge acquisition involves businesses developing, seeking, generating, creating, and capturing customer information. Knowledge conversion is the ability of the business to organise, integrate, combine, structure, and coordinate customers' information. Knowledge application uses existing data to help the business improve its efficiency and effectiveness. The crux of knowledge management is creating a knowledge management capacity that aligns business knowledge resources with the changing market (Chen & Fong, 2015; Tseng, 2016). This underscores the pivotal role of knowledge management in customer knowledge.

On the other hand, Miranda et al. (2011) proposed the knowledge concept by gathering specific data from human resources, technology infrastructure, and strategic templates and planning three key processes: institutionalisation, internal and external learning processes. Customer knowledge has evolved into a business process supported by database technologies and activities to create and share knowledge (Tseng & Wu, 2014; Tseng, 2016). According to

Shi and Yip (2007), customer knowledge is a vital asset for any business as it allows the organisation to respond quickly to customer needs and adapt to the dynamic market. This underscores the role of customer knowledge in business adaptability. Meanwhile, understanding, anticipating, and managing customers requires building and managing customer relationships to enhance their effectiveness and efficiency (du Plessis & Boon, 2004; Tseng, 2016).

Furthermore, customer knowledge management refers to the source and application of customer knowledge and how to use information technology to build a more valuable customer relationship (Soltani & Navimipour, 2016). It, however, leverages the relevant information and experience in acquiring, developing and maintaining a profitable customer portfolio. It emphasises collecting, storing, sharing and using customer knowledge with advanced information technology (XU, 2014). The extent of customer knowledge required by any business must be considered. Such knowledge is used to prepare for customers' requirements such as products, services and market conditions (Lingbo & Kaichao, 2012).

2.4.2 THE DEGREE OF ACCEPTABILITY OF CRM AND THE LEVEL OF CUSTOMER SATISFACTION

CRM is a business strategy that uses information technology to provide an enterprise with a comprehensive, reliable, and integrated view of its customer base. All business processes and customer interactions help maintain and expand mutually beneficial relationships (Kumar & Reinartz, 2018). CRM systems help organisations improve their interactions' profitability, safety, and friendliness through individualisation and personalisation. CRM is thus a technique or a set of processes designed to collect data and provide information that helps the organisation evaluate strategic options.

As per Malik and Wood-Harper (2010), CRM is not just a business strategy but a centralised system within UK banks. Their research, based on interviews with bank employees, revealed that the central system is a well-understood and integral part of daily operations. This system is not viewed as a new technology or strategy, but as a familiar and important tool that contributes to the bank's success.

Research by Ilias & Shamsudin (2020) underscores the significant role of customer experience in driving satisfaction, loyalty, and market growth. This finding reinforces the importance of CRM in understanding and enhancing customer experience, thereby fostering long-term relationships and business growth.

Furthermore, Mbama & Ezepue (2018), on customer acceptance from 2008-2014, highlighted that online banking acceptance increased between 2008 and 2014, peaking in 2013, while m-banking uptake has been growing from 2011 as more customers choose to bank through their mobile devices. They also highlighted that an increase in customers banking through digital channels highlights that customers have a positive experience. Similarly, some UK banks captured customer satisfaction levels through banking levels, and the data showed that more customers were satisfied with Internet and telephone banking than with branch banking (Mbama & Ezepue, 2018). Customers' increase in digital banking acceptance also showed that bank branches were closing as customer visits declined and digital banking usage increased. The figure below shows that about 73% of UK customers use online banking. It is also observed that from 2007 to 2019, online banking was tremendously penetrated in the UK (Cherowbrier, 2020d).

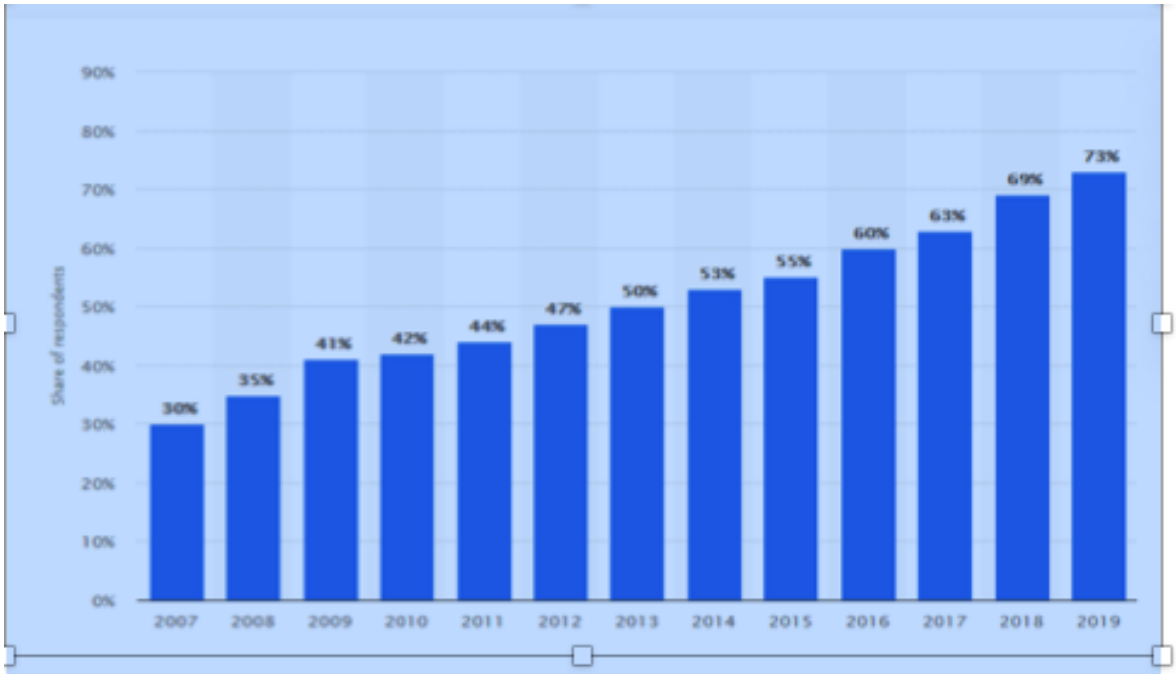


Figure 2.3. Online banking penetration in Great Britain from 2007 to 2019 Source: Cherowbrier, 2020d

2.4.3 CONCEPTUAL FRAMEWORK

The early sections of the chapter provide the context of the research. They are also the foundation of the conceptual model that frames the empirical research.

Figure 2.4 serves two purposes. First, it is intended to remind the reader of the logic of the literature review. Second, together with Figure 2.5, it lays out the thought processes that underlie the empirical analysis.

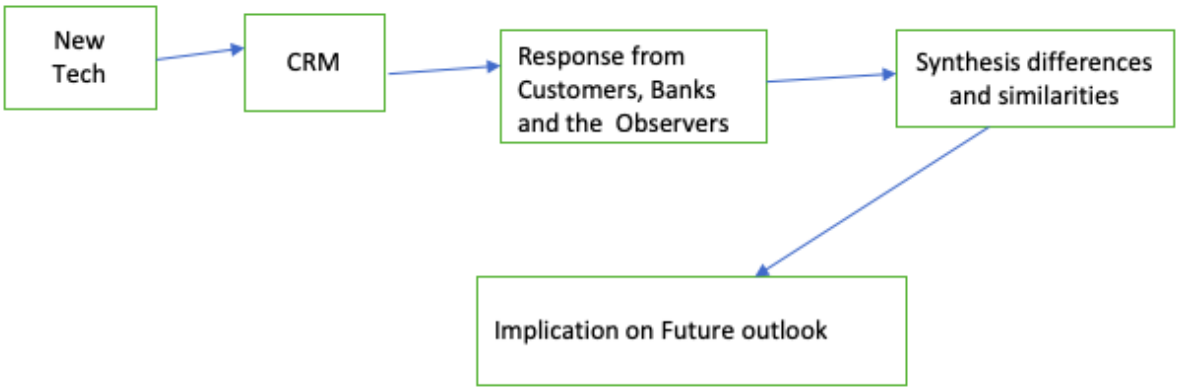


Figure 2.4 Conceptual Framework model 1 By researcher

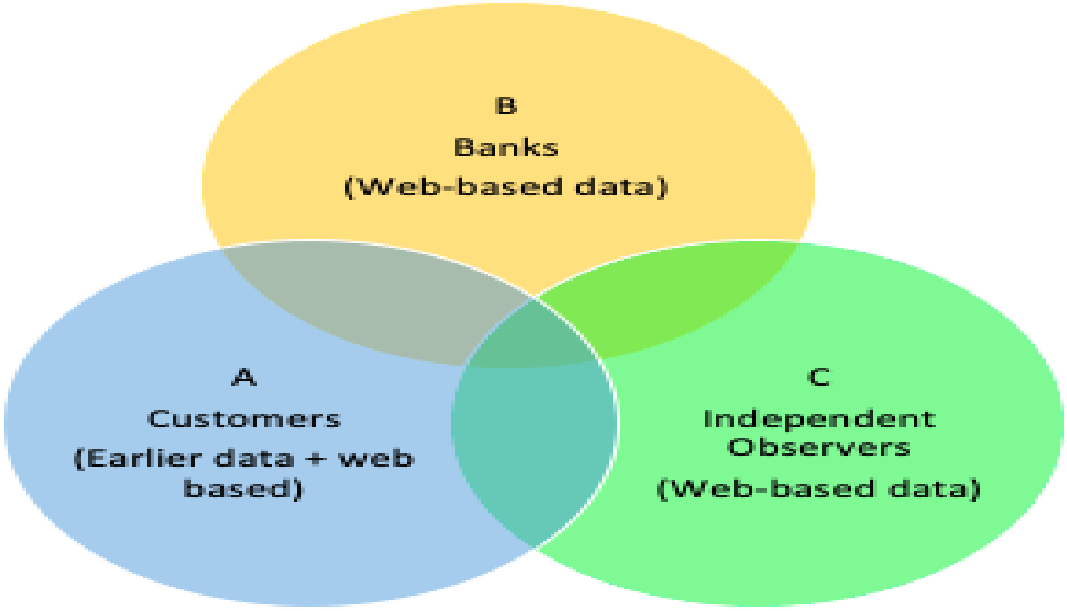


Figure 2.5 Conceptual Framework model 2 By researcher

Customer relationship management (CRM) is an essential aspect of any business. CRM in the banking industry focuses on building and maintaining strong customer relationships to increase loyalty, interactions, and transactions.

Customer relationship management in the bank generally revolves around customers' technology and the bank itself. In the CRM circle, technology is an intermediate position between the customers and the bank used to serve the customers. By implication, using technology to manage customer relationships places technology at the heart of CRM. The proposed framework in Figure 2.5 above explores the domains the researcher considered to collect adequate data that summed up the research concept as shown in the models. Banks use the new technology in CRM to transact and interact with general retail customers and independent observers.

Data from general retail customers was necessary to enable the researcher to gain insight into the customers' experiences of the impact of technology on CRM in the bank. The data portrays general acceptance, perception, and some challenges.

It was also vital for the researcher to have the bank's side of experience in deploying these technologies, which will be extracted from the bank websites. The banks use data from internal transactional history, service requests, and customer complaints to identify improvement and development areas.

Independent observers such as the regulatory body, market analysis, industry association and the media were essential as they provided valuable insight without bias. The comprehensive approach to data collection, including market trends, experts, customer experiences and satisfaction levels, struggles, surveys and banks' performances, ensures that the researcher gains better insight in the similarities and the differences to project the future outlook of technology on CRM in retail banks.

2.4.4 CONCLUSION

As promised at the beginning, this chapter reviews the literature in four sections: the evolution of retail banking in the UK, an Overview of customer relationship management, and Technology acceptance. The literature has systematically evaluated the profound impact of technology on customer relationship management in UK retail banks. This comprehensive analysis reassures us of the thoroughness of the research. The transformation and evolution since the 80s have shifted the focus from offering generic products to attracting and retaining new customers to more sophisticated transactions and financial services. This evolution has

redefined customer relationship management as a strategy and process of gathering, maintaining, and reaching out to customers to create value.

Implementing a successful CRM, banks apply policies and technologies to capture customers' information, store the data, and use the information to deliver customised customer communication that is consistent across all customer interactions. In this technological advancement and extreme competition coupled with the outburst of product choices and increasingly informed customers, businesses engage with their customers at all possible touchpoints to create, build, and enhance customer relationships.

Customers are more likely to accept and adopt new technologies in retail banking if they perceive them as useful in enhancing their banking experience. This understanding of the customer's perspective is crucial in the advent of technology in UK banks and the banking sector, which gave birth to several automated CRM methods. The chapter identified knowledge gaps in the literature as follows.

2.4.5 GAPS IDENTIFIED IN THE LITERATURE

Gaps	Description
Gap 1	The literature is lacking models that can individually measure traditional and technological perceptions in retail banking
Gap 2	No empirical evidence related to impact of technology on CRM in these three perspectives

Table 2.3 Research Gaps By researcher

CHAPTER THREE: RESEARCH METHODOLOGY

3. INTRODUCTION

At this stage, the author finds it beneficial to describe the evolution of her ideas in response to the valuable feedback from the examiners. The author expanded her empirical work by adapting the research to a web-based approach. Obtaining data from the bank's management was not feasible; however, the author was referred to their website for relevant information. The data derived from the web source represent the progression of the thesis in response to the examiners' comments. However, the empirical work in the earlier version has provided helpful material upon which the author has responded to the examiner's comments.
The study aims to explore technology's impact on customer relationship management in UK retail banks over the last 40 years and its implications for the future. Therefore, it seeks to explore the potential of technological advancement in CRM in UK retail banks and its impact on customers.

The methodology chapter is structured as follows;

1. Section1 Comparative model illustrating the three perspectives and Technology adaptation
2. Section 2 Research method and philosophy

The first section of this thesis explores the theoretical frameworks relevant to the study, while the second section outlines the methodology employed to achieve the research's aims and objectives. As highlighted to the reader, the primary objective is "the exploration of technology's impact on customer relationship management (CRM) in UK retail banks over the last 40 years and its implications for the future."

To offer a comprehensive perspective, the researcher incorporates insights from bank customers, the banks themselves, and independent observers into a model represented by a Venn diagram. This model, which provides a visual representation of the intersection of these perspectives, offers valuable insights for retail banks seeking to leverage technology to enhance CRM practices and strengthen customer relationships. The researcher's technology adoption model employs a multidimensional approach to assess technology's influence.

Surveys were used to collect data from bank customers, while web-based research gathered data from the banks and independent observers.

This combined approach establishes a robust empirical foundation and ensures the research is grounded in a thorough understanding of the subject matter.

A Venn diagram visually represents the overlapping perspectives of customers, the bank, and independent observers, illustrating areas of similarity and difference among the three viewpoints. This highlights the commonalities and intersections between the perspectives.

The research applies the technology adoption model to the retail banking sector, with a particular focus on area B in the Venn diagram. In contrast, the technology acceptance model, applied specifically to retail bank customers, corresponds to area A in the diagram. The technology acceptance model is based on two key components: perceived usefulness (PU) and perceived ease of use (PEOU). Additionally, area C in the Venn diagram represents the independent observers, who play a crucial role in providing impartial insights into both the banks and their customers, thereby enlightening the audience.

SECTION 1

3.1 TECHNOLOGY ADOPTION MODEL

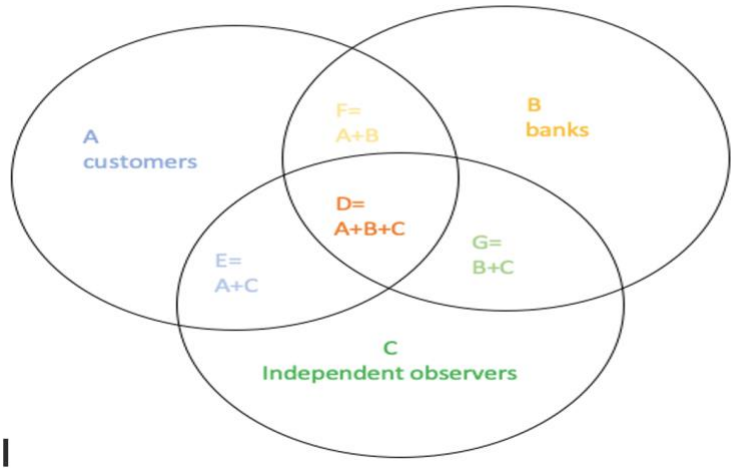


Figure 3.1 Technology adoption Model By Researcher

The table below explains the Venn diagram above. Table 3.1 sets out the various components of the Venn diagram.

S/N	Section	Explanation
1	A	Section A sets out customer experiences, acceptances, and challenges related to using CRM technology from empirical work.
2	B	Section B is the bank's accounts of customers' experiences, improvements in the customer's services recorded, and the general feeling of enhancement witnessed due to CRM technology.
3	C	Section C is the Independent observer account of the customer's experiences, acceptance, expectations, real-life challenges, and improvements.
4	D = A+B+C	Section D discusses the similarities between customers' accounts, banks, and independent observers.
5	E= A+C	Section E is about similarities in customers' experiences and the independent observer.
6	F= A+B	Section F is the similarities in customers' and banks' experiences
7	G= B+C	Section G discusses the similarities in banks' experiences and the independent observers

Table 3.1 Technology adoption Model. By researcher

In response to the examiners' suggestions, the researcher decided to elaborate and deepen her original research by consulting various data sources. Below is a table containing some of the resources used in the model.

3.2 LIST OF RESOURCES

S/n	The Customers	The banks	Independent observers
1	Strohm, Horton &Aldrich, (2023).	HSBC, 87% of our global retail banking is now digital"(2019). banking of the	Meah, (2023) The Digital Revolution in Banking: Exploring the Future of

	5 Benefits of Digital banking. Available online at: https://www.forbes.com/advisor/banking/benefits-of-digital-banking/	future: available online at: file:///Users/tobechukwueze/Downloads/191108-bof-report.pdf	Finance. Available online at: https://www.techopedia.com/the-digital-revolution-in-banking-exploring-the-future-of-finance#:~:text=This%20shift%20towards%20digital%20banking,offer%20personalized%20services%20to%20customers
2	Valenti & Alderman,(2021). Building on the digital banking momentum. Deloitte. Available online at: https://www2.deloitte.com/xe/en/insights/industry/financial-services/digitalization-in-banking.html	NatWest, 2023.Innovation and digitalisation. Available online at: https://www.natwestgroup.com/sustainability/society/innovation-and-digitisation.html	Wright & Wilson, 2023. Innovation and transformation in banking. Available online at: https://www.raconteur.net/insights/innovation-and-transformation-in-banking
3		Barclays, (2022). How can retail banking adapt for the future? Available online at: https://home.barclays/news/2022/06/how-can-retail-banking-adapt-for-the-future/#back=%2Fcontent%2Fhome-barclays%2Fen%2Fhome%2Fr	Klimenko,(2023) Digital transformation in banking and financial service. Available online at: https://maddevs.io/blog/digital-transformation-in-banking-and-financial-services/

		esults.html%3Fq%3D%2Bthe%2Bimpact%2Bof%2Btechnology%2Bon%2Bcustomers%2Bin%2Bretail%2Bbanking%26_charset_%3DUTF-8%26offset%3D0%26origin%3Dhelp.barclays.co.uk	
4	Daly and Caporal., (2023). Identity theft and credit card fraud statistics. Available online at: fool.com/the-ascent/research/identity-theft-credit-card-fraud-statistics/	Barclays .,(2018). Barclays becomes the first in UK high street to stop customers' transactions in certain retailers. Available online at: https://home.barclays/news/press-releases/2018/12/barclays-becomes-first-uk-high-street-bank-to-enable-customers-t/	Khon, Ahmed Nizam, David Tan, and Zubin Taraporevala., (2022) Best of both worlds: Balancing digital and physical channels in retail banking. Available online at : https://www.mckinsey.com/industries/financial-services/our-insights/best-of-both-worlds-balancing-digital-and-physical-channels-in-retail-banking
5	Zhu, J. and Wang, M., (2022). Analysing the Effect of People Utilizing Mobile Technology to Make Banking Services More Accessible. Frontiers in Public Health, 10.	Sanchez, (2023). UK banks warn of a significant surge in online scam via technology platforms. Itechpaost. Available online at: http://www.itechpost.com/articles/117585/20230511/uk-banks-warn-of-a-significant-surge-in-online-scams-via-technology-platforms.htm	Sanchez, (2023). UK banks warn of a significant surge in online scam via technology platforms. Itechpaost. Available online at: http://www.itechpost.com/articles/117585/20230511/uk-banks-warn-of-a-significant-surge-in-online-scams-via-technology-platforms.htm

6	Jebarajakirthy, C. and Shankar, A., (2021). Impact of online convenience on mobile banking adoption intention: A moderated mediation approach. Journal of Retailing and Consumer Services, 58, p.102323.	Tejada, (2022). 5 ways the banking & financial sectors have adapted to technology. Stefanni. Available online at: https://stefanini.com/en/insights/articles/5-ways-banking-financial-sectors-have-adapted-to-technology#:~:text=Banking%20and%20financial%20institutions%20have,users%20utilize%20their%20online%20platforms	Diffenhard., (2022) Win the payment experience battle with a customer-centric approach. Available online at: https://www.entrust.com/blog/2022/11/win-the-payment-experience-battle-with-a-customer-centric-approach/
7			Rizzi and Zubin Taraporevala., (2019). To capture the total value of digital distribution, banks must ensure that the human touch is still part of the equation. Available online at: https://www.mckinsey.com/industries/financial-services/our-insights/the-balancing-act-omnichannel-excellence-in-retail-banking
8		Geyer, (2022). What is social CRM, and how to benefit from it? Available online at: https://influencermarketinghub.com/social-crm/	Roberts, B. and Campbell, R.C., (2007). Being new-customer friendly: determinants of service perceptions in retail banking. International Journal of Bank Marketing, 25(1), pp.56-67.

9		Barclays. ,(2022).Barclays urges the public to trust their guts. Available online at: https://home.barclays/news/press-releases/2022/11/barclays-urges-public-to-trust-their-gut-purchase-scams-rise-70-per-cent/	Bensley, Shital Chheda, Robert Schiff, Daniel Stephens, and Nicole Zhou, (2020) Remaking banking customer experience in response to coronavirus. Available online. at: https://www.mckinsey.com/industries/financial-services/our-insights/remaking-banking-customer-experience-in-response-to-coronavirus
10		Wisniewski and Schepp., (2022). 7 key benefits of mobile banking in 2023. Bankrate. Available online : https://www.bankrate.com/banking/checking/benefits-of-mobile-banking/	Bhapkar, Ido Segev,Chris Smith and Zac Townsend .,(2021). Disrupting the disruptors: Business building for banks; McKinsey also available online at: https://www.mckinsey.com/industries/financial-services/our-insights/disrupting-the-disruptors-business-building-for-banks
11		Tsouni, (2023). Social media and retail banking: what you need to know. Exus. Available online at: https://www.exus.co.uk/blog/social-media-and-retail-banking-what-you-need-to-know	KPMG, (2021) Global customer experience excellence. Available online at: https://home.kpmg/xx/en/home/insights/2021/11/banking.html
12		Yuril, (2022).Cloud Banking; the future for banking or what banking sector will look like in 2030. Online at;	Cavaglieri., (2021).the financial Ombudsman service. Available online at:

		https://intelvision.pro/blog/cloud-banking-the-future-of-banking-or-what-banking-sector-will-look-like-in-2030/.	https://www.which.co.uk/news/article/banks-wrongly-denying-fraud-victims-compensation-in-up-to-8-in-10-cases-aFcK94J4TjEX
13			Cavaglieri., (2022).banks still failing fraud victims. Available online at: https://www.which.co.uk/news/article/banks-still-failing-fraud-victims-in-three-quarters-of-cases-which-money-reveals-a6t9f1h6JBjj
14		Wallop, (2022).consumer card spending grew by 10.6. available online at: https://home.barclays/news/press-releases/2022/12/consumer-card-spending-grew-10-6-per-cent-in-2022	Cavaglieri., (2023).Best and worst bank. Available online at: https://www.which.co.uk/money/banking/bank-accounts/best-bank-accounts/best-and-worst-banks-a8VTn0B0PJNC
15		Ross, (2019). How to beat the fraudsters. Available online at: https://home.barclays/news/2019/1/how-to-beat-the-fraudsters/#back=%2Fcontent%2Fhome-barclays	Taylor and Cooke., (2023). Banks' core technology conundrum reaches an infection point. Online at: https://www.mckinsey.com/industries/financial-services/our-insights/banks-core-technology-conundrum-reaches-an-inflection-point
16		HSBC, (2022). Annual report. Available online at :	Bevan, Saptarshi Ganguly, Piotr Kaminski,

		file:///Users/tobechukwueze/Downloads/230221-annual-report-and-accounts-2022.pdf	and Chris Rezek,.(2016). Technological risks are becoming more prominent and more dangerous. Available online at: https://www.mckinsey.com/capabilities/risk-and-resilience/our-insights/the-ghost-in-the-machine-managing-technology-risk
17		Feyen, E., Frost, J., Gambacorta, L., Natarajan, H. and Saal, M., (2021). Fintech and the digital transformation of financial services: implications for market structure and public policy. BIS Papers.	Statista, (2022), Digital disruptor banks in the UK. Available online at: https://www.statista.com/topics/5996/disruptor-banks-uk/#topicOverview
18		Frankenfield, Somer Anderson and Suzanne Kvilhaug.,(2023). What is online Banking? Definition and how it works. Investopedia. Available online at: https://www.investopedia.com/terms/o/onlinebanking.asp	Statista, (2022). Share of people using online banking in Britain2007-2022. Available online at: https://www.statista.com/statistics/286273/internet-banking-penetration-in-great-britain/
19		Whiteman,(2021) Increase in digital banking raises consumers data privacy concerns: how to protect yourself. Available online at: https://www.forbes.com/advisor/banking/digital-banking-	

		consumer-data-privacy-concerns/	

Table 3.2 List of resources By researcher

3.3 JUSTIFICATION FOR CHOOSING THE RESEARCH METHOD

In response to the examiners' corrections, the researcher explained the justification for the research method at this stage to give the reader an overview of the concept.

Online surveys, a method used for its convenience and inclusivity, allowed general retail bank customers to participate in the research at their own pace. The researcher, mindful of the participants' comfort, used google forms to create the questionnaire. Automated data cleaning processes were implemented, with boundaries set for participant responses, ensuring that data was gathered while respecting voluntary participation.

Following the first panel's advice, attempts were made to secure interviews with bank management. However, these were unsuccessful, and the study shifted to a more web-based research strategy, drawing on secondary data from expert consultants, bank websites, annual reports, and media sources.

The research aims to examine the impact of technology on customer relationship management (CRM) in UK retail banks. Technological tools were employed to conduct the study in line with this focus. The researcher utilized web-based research to explore various dimensions of the topic, including the influence of technology on customers, banks, and independent observers.

Combining data from the online survey with data from web-based research allowed access to expert insights from bank databases and impartial perspectives from independent observers. This mixed-method approach provided a more comprehensive and balanced view of the subject and enhanced data accuracy and reliability.

With a one-year timeline for completing the research major revision, the researcher adopted a proactive approach to data collection. This strategy, which leveraged the speed and cost-effectiveness of online research, allowed for the efficient gathering of extensive data.

Web-based research allows for rapid data collection and analysis, leveraging tools such as online surveys and gathering data from online (Drewniak et al., 2020). This efficiency is particularly beneficial in fast-moving fields where timely data is critical, enabling researchers to keep their work current and relevant.

It provides continuous updates from reputable sources such as news outlets, websites, databases, and academic repositories, ensuring that research reflects current findings and trends (Bai & Li, 2021).

By significantly reducing the financial burden of travel and in-person data collection, researchers can collect large datasets at a fraction of the cost (Giningroem et al., 2023). Web-based research provides comprehensive access to vast resources, including academic databases, industry reports, and open access to banks and government publications, allowing researchers to incorporate a variety of perspectives that contribute to a more comprehensive understanding of their subject matter (Adhikari et al., 2020).

SECTION 2

This section also systematically explains the philosophy, the research design adopted and method. It also describes the various stages of the research, study population, sample size, data collection process, data analysis, research reliability, validity and ethical consideration of the study. Equally, the research and survey strategies employed for this research are explained in detail. The importance and rationale for choosing the mixed research approach will also be explained in detail.

3.4 RESEARCH METHODOLOGY

One of the most useful definitions of methodology is the process through which the researcher collects data for analysis to make certain decisions or conclusions (McCusker & Gunaydin,2015). Bryman (2015) stated that numerous other tools are used in the research methodologies, such as questionnaires, interviews, focus groups, reviews of published journals and other websites. According to Creswell and Creswell (2018), the methodology can be described as a systematic or theoretical tool applied to a particular field of study, further stating that the research quality hinges on the researcher's methodology. Research usually emanates from a general background to establish a statement of the problem leading to the development of objectives (Creswell & Creswell, 2018; Moser & Korstjens,2018).

The researcher found it vital to consider a suitable methodology based on individual preferences, principles, research objectives and questions. Therefore, the researcher adopted a research onion developed by Saunders, Lewis and Thornhill (2019) to guide this study's research methodology.

3.5 RESEARCH PHILOSOPHY

It is necessary to show awareness of different research philosophies. The researcher does so briefly in this section. As with many research documents, the methodology adopted demonstrates various approaches. Biases inevitably enter. However, the researcher makes every effort to be transparent in her approach so that her research can be replicated in principle.

Research philosophy consists of fundamental assumptions about how researchers view the world. It concerns the general belief concerning how data should be collected and interpreted. Certain assumptions and perceptions are accepted when choosing a particular research philosophy, and specific strategies and interpretations are equally involved (Jebreen, 2012). The primary research philosophies that are commonly used are positivism and interpretivism (Creswell & Creswell, 2018).

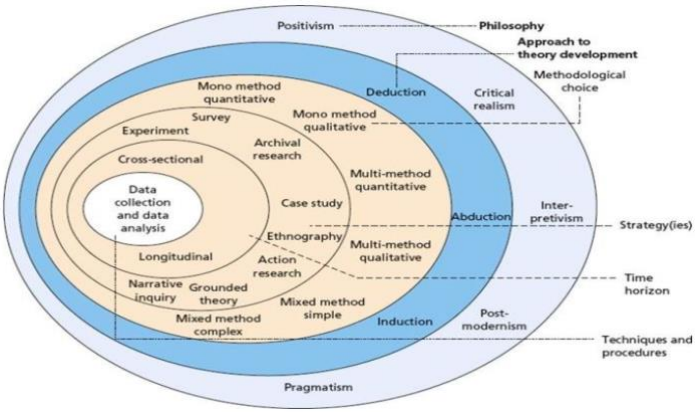


Figure 3.2 Research Onion Source: Saunders et al. (2019)

The diagram above contains research approaches and philosophy of positivism, realism, objectivism, subjectivism, pragmatism, functionalism and interpretivism. The researcher discusses some of these philosophies in this chapter and which of them the researcher will apply.

Positivism

Positivism is a philosophical theory that states that specific positive knowledge is based on or derived from natural phenomena because reality is constant, and different persons can investigate it from different perspectives (Saunders et al.,2012). The quantitative data collection approach is usually adopted since the essential data needed thorough research is to

be collected under the positivist philosophy. In this research, a positivist philosophy was applied to the data collected through a survey, which gathered quantitative data on the experiences and perceptions of general retail bank customers.

Interpretivism

Interpretivism is well suited for this kind of research when there is a need to collect insights about people concerning a particular research interest (Saunders et al., 2012). Researchers who use interpretive methods assume they have access to reality or socially constructed, which can be accessed through a social medium, such as language, instruction, shared meanings, beliefs, and consciousness (Creswell & Creswell,2018).

This philosophy believes that reality could have several interpretations, which means that humans could assist in playing the role of social actors. This philosophy believes that subjective interpretation and intervention, in reality, are needed to understand reality fully. The researcher applied interpretivism as a philosophy to research different secondary data from what the banks say regarding the impact of technology on CRM in UK banks. The researcher appreciates the differences in the results that can be obtained and the differences in the approaches. It studies the subject matter in a specific area and provides interpretation according to the perceptions and social surroundings.

Objectivism

According to Byrman (2015), objectivism helps researchers avoid being influenced by their values and biases, which can potentially manipulate the research outcome. Therefore, the researcher must distance themselves from the participants in the subject matter under consideration in order not to interfere. This philosophy aims to stay objective without any prejudice that could create the chance to alter the research outcome (Creswell & Creswell, 2018). Objectivism states that objectivity stays as an ideal. The reality is, however, challenging for a researcher to stay completely away from reality, and hence an approximation is applied. Hence, objectivism prioritises objectivity as a primary aim with some considerations for human limitations (Kihn & Ihantola, 2015).

In the case of this research, the main objective is to explore the impact of technology by understanding customers' experiences, acceptance and perceptions of customers on the impact of technology on CRM in UK retail banks. Thus, methodology linked to the practical experiences of these customers was very appropriate. Drawing from the above justifications, the researcher chose positivism and interpretivism to determine customers' understanding, experiences, acceptances and perceptions of the new technology in CRM both from the

customer's perspective and the banks summed by the independent observers. This study does not limit itself to one side of the research as it is focused on having data from both sides and having unbiased knowledge of what an observer has said about the new technologies. Therefore, the study subsequently explains the adoption of survey and web-based research to justify the reason for gathering customers' understanding, experiences, acceptance, and perceptions of CRM technology in UK retail banks. This study uses quantitative and qualitative (mixed research methods) methods.

3.6 RESEARCH DESIGN

A research design is usually concerned with any research framework concerning methods and techniques a researcher chooses to solve a research problem (Wahyuni, 2012; Rahi, 2017). It's usually geared towards selecting the most appropriate research methods for solving a particular problem (Rehman & Alharthi, 2016), which creates the opportunity to have a road map and show the research's position.

This study examines the impact of technology on (CRM) in UK retail banks. The target population is the general customers of any UK retail bank. Based on this, data were collected from general retail customers to understand their various experiences, acceptance and perceptions. Also, data collection from independent observers is needed to have a more holistic view of the subject.

In any research, choosing the best design is good; however, the choice does not matter as all designs are good and bad depending on how they are applied. For this research, exploratory and descriptive research designs were employed as they are considered the most suitable. These two designs were to acquire enough data for the researcher to generate information about complex human experiences, which will be analysed for optimal results. Therefore, the exploratory design will assist in gaining much-needed background concerning the impact of technology on customer relationship management in UK retail banks. Hence, the research will use a descriptive design to describe specific characteristics of technologies' existing features in UK banks' customer relationship management. Descriptive research will reveal the hidden facts shared by the customers who participated in the survey, describing their experiences and enabling the researcher to analyse the data.

3.7 RESEARCH METHOD

The mixed research method approach

In the mixed data collection approach, inductive and deductive analysis approaches are utilised (Creswell, 2013), which means that the research combines quantitative and qualitative approaches. Maintaining consistency between the methods, methodology, and analysis is essential to demonstrating logic and having credible research that will attain the objectives and answer the research questions.

The quantitative approach usually refers to a scientific method, and its grounds can be identified in a positive paradigm (Bhandari, 2020). Quantitative research is a means of testing objective theories by examining the relationship among variables.

As described by Kallio et al. (2016), the qualitative approach to research involves applying an inductive data analysis to understand the perceptions and knowledge of respondents in a study. As noted by Creswell and Creswell (2018), this approach is particularly successful in non-manipulative environments, allowing for a deep exploration of a specific subject.

Regarding the current study, customers' experiences, acceptance, perception, and the banks' views were considered in quantitative and qualitative research to provide the best approach. The research found it expedient to adopt a mixed research method for this study because it allowed the researcher to explore the impact of technology on CRM in UK retail banks in three research domains (customer, the retail banks and the independent observers). The mixed research method was helpful because it enabled the researcher to gather relevant data from the general retail bank customers, the different banks' views and opinions about the customers' perception, acceptance from the bank website, and the unbiased independent observers' reports.

3.8 RESEARCH POPULATION

The research population for this study was defined as the individual customers of United Kingdom banks, bank staff and executives (web-based data) and independent observers (web-based data). The choice was made in the light of the following considerations;

The United Kingdom, as reported by BBC News (2019), continues to hold a significant position as a global economic and military power, with substantial political and cultural influence. This global influence is particularly pronounced in the finance sector, making the UK a key area for research in this field.

The Bank of England's stringent regulations and high-quality services position it as a global leader in the finance sector. Therefore, this research's findings have the potential to be applied in other well-developed countries, offering valuable insights into the impact of technology on CRM in the retail banking industry.

Therefore, the essence of having a diverse population was very vital. This study's targeted population comprises banks' retail customers, bank executives and staff and independent observers. The research collected primary data from the banks' general customers and web-based data from the bank's websites to gather the bank-published data concerning their input on the impact of technology on CRM. According to their advice, this was more ethical as their staff could not grant an interview concerning their products and services. Unfortunately, they all have a good thing to say about the new technology and how it has helped the customers without mentioning any challenges. That is why the independent observer's data were explored to ensure the data will have a different side. The independent observers come without any form of bias to the data.

Out of the accessible population, samples for this study consist of general customers of retail banks who have a banking relationship with the bank and have used one or two of these technologies. The researcher found this impressive, as expected; having a banking relationship and using these technologies first-hand will enhance the customer experience, hence the expression in the survey.

3.9 POPULATION, SAMPLE AND SAMPLING TECHNIQUE AND PROCEDURE

3.9.1 POPULATION, TARGET POPULATION AND ACCESSIBLE POPULATION

Understanding the concept of research population and sampling is integral to your role as an academic researcher or student. A research population is usually a large compilation of persons or objects that are the primary target of research (Creswell & Creswell, 2018). Sampling is a process through which a researcher chooses the sampling population and size (Dawson, 2019). According to Creswell and Creswell (2018), a key aspect of research is that it is typically intended to represent a population. However, due to the large size of the population, researchers are often unable to study every individual, as doing so would incur significant costs and require substantial time.

The current research's population consists of all general customers, staff of retail banks in the UK (web-based data) and independent observers (web-based data). Although the bank serves business, mortgage, and retail customers, the study specifically focuses on retail bank customers. This selection ensures that the sample accurately represents the population and minimizes sampling error.

3.9.2 SAMPLE SIZE, SAMPLING TECHNIQUE AND PROCEDURES

In research, sampling is the efficient process through which a researcher selects the sample population and sampling size (Dawson, 2019). This method saves a significant amount of time that would otherwise be spent on researching a large amount of data (Bryman, 2015). There are many sampling techniques: random, systematic, stratified, clustered, quota, and purposive (Creswell & Creswell, 2018).

For this study, the researcher chose to employ a variety of sampling techniques, showcasing the adaptability and flexibility of the research process.

Stratified sampling techniques were employed to categorize the general UK retail bank customers and their staff. The bank serves business or commercial, mortgage, and retail customers. Retail bank customers, their staff (web-based data) and independent observers (web-based data) were selected from this group to ensure that the sample accurately represents the population. To participate, respondents had to be UK retail bank customers. Data collected from retail bank staff were on the bank website, capturing customers' acceptance and perceptions of CRM technology, as documented on the bank's website by the appropriate staff member. Furthermore, independent observer data was also collected through various consultancy websites. This approach provided access to expert data from an unbiased perspective, allowing for a comparison between the views of retail bank customers and those of the bank staff.

After the stratified sampling, the participants involved in this research were sampled using the purposive sampling technique. The researcher used this technique because it enabled the researcher to set conditions for participants who appropriately qualified to be engaged (Grossoehme, 2016). The survey allowed the respondent to proceed after fulfilling conditions like having a relationship with the bank and using one or two of these CRM technologies, which are customer relationship management tools or systems.

Also, purposive sampling helped clean the data, meaning the respondent was relevant to the research. Apart from the advantage of data cleaning, it helps to save time because it was

directed towards individual customers who have bank relationships and have used one or two of the CRM technologies. Furthermore, Creswell and Creswell (2018) stated that purposive sampling is considered superior to other methods because it primarily focuses on the segment of the population whose opinions are representative of the general populace.

The sample size, which refers to the number of individual samples or observations in a statistical setting, is a crucial factor in research. By surveying a population sample, the researcher can gain significant insights into the behaviour and opinions of the larger target population, thereby enhancing the impact of the research.

A total of 173 participants took part in the survey, comprising 82 males and 88 females. The respondents were all relevant to the research, as the data cleaning parameters, which included criteria such as having a bank relationship and using one or two of the CRM technologies, were automatically turned on, ensuring that all participants met these eligibility criteria.

Table 3.1 Breakdown of the respondents

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Male	82	47.4	47.4	47.4
	Female	88	50.9	50.9	98.3
	Prefer not to say	3	1.7	1.7	100.0
	Total	173	100.0	100.0	

3.10 DATA COLLECTION METHOD

This research had primary data collected, though it needed deeper study, which included the customer's experiences and what other stakeholders say about rapid technological change affecting customers' relationship with the retail banks.

Therefore, the researcher adopted the mixed-method data collection approach. The instrument used for primary data collection in this study is a questionnaire. In contrast, the web-based data collection was the bank website, independent observers' website, books, journals, published articles, databases, previous studies, magazines, newspapers, and online articles.

The diagram below shows the process of data collection.

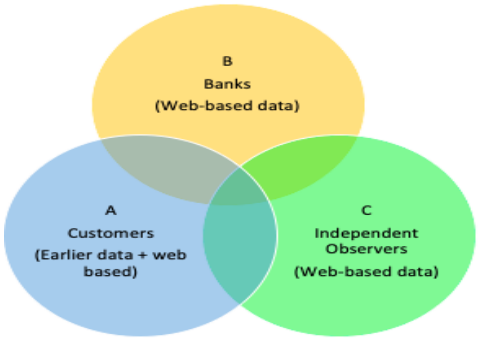


Figure 3.4 Data collection domain By Researcher

From the diagram above, A stands for data collected from the general retail customers of the banks. Questionnaires were used for primary data collection. The population, sample, question format, question content, response rate, cost and duration of data collection were carefully chosen. The situation that led to the choice was the type of research that needed statistics, the detailed data needed, the preferences of obtaining certain types of insight during the study and the opportunities available during the world lockdown caused by the pandemic (COVID-19).

Section B, the bank's database, is a rich source of web-based data. It includes websites, annual reports, bi-annual reports, and bank tech appraisals. This data is crucial as it provides a comprehensive view of the banks' perspectives on customers' experiences, acceptances, challenges, and general improvements associated with the bank's CRM technology.

Section C shows the independent observer data, also collected via web-based. It allows access to expert data from an unbiased view of independent observers. It explores hidden populations, allows opportunities to explore different experts' views, and creates more balanced information. The reports from independent observers enhanced validity and data accuracy.

3.11 DESIGNING QUESTIONNAIRE

A questionnaire is an essential instrument in research, helping the researcher collect relevant data regarding the subject matter (Taherdoost, 2022).

This stage involves meticulously designing a comprehensive questionnaire for the bank's customers (respondents) to gather the necessary data to address the research question and achieve the research objectives. The researcher will collect relevant information to assess how technology enhances CRM in UK banks.

The survey questionnaire (Appendix 1) was structured into different sections:

There are standardized questions required to conduct a survey in order to get the best answers from the respondents; on the other hand, if the questions are not structured properly, the results can be overshadowed (Brace, 2018).

In this study, we meticulously adhered to an appropriate standard.

An introductory letter outlining the research objectives and purpose.

Part one of the questionnaire focused on customer demographics, including gender, age, occupation, relationship with the bank, and the duration of that relationship.

Part two consisted of 12 questions addressing various technologies, features, and risks associated with CRM technology in UK banks.

Part three aimed to generate and evaluate the impact of technology on the respondents' experiences.

3.12 RELIABILITY AND VALIDITY OF DEVELOPED QUESTIONNAIRES

According to Krosnick (2018), questionnaires are the main and most dominant way of collecting primary and quantitative data. A well-organised questionnaire and its standardised parts are pleasing to the eye and easy to complete, which will extract the required data (Taherdoost, 2022). This question can help the respondent decide their willingness to participate in the study.

Digital technology has revolutionised data collection methods in research, with online questionnaires becoming increasingly popular (Longe,2019). Today's businesses are leveraging real-time data to enhance their ability to make better decisions so researchers are not left out. Online questionnaires have become indispensable tools in modern research due to their flexibility, efficiency, and wide-reaching potential.

According to Mo et al. (2023), A questionnaire can only be reliable if valid, but a valid questionnaire is always reliable. The validity of a questionnaire refers to its accuracy, which means the extent to which a questionnaire evaluates what it is supposed to evaluate (Ranganathan, 2024). Reliability and validity are independent.

However, for such tools to contribute to meaningful scientific inquiry, they must be valid and reliable.

Several types of validity are recognised in understanding and effectively implementing a valid research questionnaire (Creswell, 2013): content, construct, and criterion. By understanding and implementing various validity and reliability measures, researchers can enhance the robustness of their data collection instruments and, consequently, the credibility of their findings.

Several measures and restrictions were implemented to ensure that the data collected from the questionnaire was valid and reliable. These steps were designed to enhance the accuracy and trustworthiness of the responses. The questionnaire was divided into two parts. The first section, which was designed to gather demographic information, was crucial for understanding the respondent profile. The second section, on the other hand, explored a wide range of topics, including various technologies, customer experiences, features, and the risks associated with CRM technology in UK retail banks. Respondents were encouraged to participate voluntarily, with the option to discontinue at any point.

3.13 QUESTIONNAIRE DISTRIBUTION AND ADMINISTRATION

Initially, the researcher had planned to conduct interviews with the staff of UK retail banks and a cross-section of UK retail bank customers online. However, when the bank's staff were unwilling to grant the interviews, redirecting the researcher to their website, the researcher demonstrated adaptability. They found a new approach, recognizing that all the necessary information had been published on the bank's websites, ensuring the research continued smoothly.

At the time of this primary data collection, online data collection was the most suitable for the research. The researcher, therefore, opened an online survey account with Google Forms. A prepared questionnaire was uploaded online to enable different retail bank customers in the UK to respond to the questionnaire. Hence, the researcher uploaded the link to the questionnaire to her LinkedIn account and to the tapestry of Discovery Primary School, where parents and teachers of my children's school attended. The link was equally emailed to colleagues in the office, and participants were sent the link through emails and phone lines. The online account subscription was set to last for a month and two weeks, respecting the respondents' time and convenience. This allowed the respondents to attend to the request at their convenience. The choice of Google Forms among the various online survey services

was based on academic preference, as it provides engagement, feedback, and immediate data assessment, as noted by Nguyen et al. (2018).

Google Forms is an online survey service that provides an environment where the researcher can develop a questionnaire with possibly varying questions without ambiguities, enabling the customer to give detailed answers.

Google Forms is a web-based app for data collection. It can be shared with respondents by sending a link, email, or web page.

It allows different types of open-ended, closed, and even multiple-choice questions to allow customers to share their experiences genuinely. In a case study, Yin (2009) stressed that it is essential to have open-ended questions to enable the participants to explain their views adequately on a situation.

Google Forms has a robust data validation feature, which ensures strict customer confidentiality and adequate control over the demographic, as requested by the researcher. For instance, if the researcher specifies that only UK retail bank customers should respond, the form will allow respondents to skip questions that are not relevant to them. This creates an environment where the outcome is trusted as authentic and pure data. Google Forms is also relatively cheap and easy for both the customer and the researcher to access.

When customers respond to the Questionnaire, Google forms allow them to save their responses and continue the next time. It also allows only one response from a customer, as one email address cannot respond to the questionnaire twice. Google Forms are integrated with Google spreadsheets, allowing easy access to Excel sheets.

The questionnaire requires no personal information such as date of birth, address, phone number, or bank details to maintain appropriate confidentiality and anonymity. This approach respects the privacy of the respondents, ensuring their security. All customers' consent was duly obtained, and their views were respected.

3.14 DATA PROCESSING AND ANALYSIS

Data analysis is a crucial component of research that involves extracting meaningful insights from collected data to gain a deeper understanding of the subject under investigation. In this study, data analysis is employed to examine the responses obtained from retail bank customers, as well as data gathered through web-based research from the banks themselves and independent observers. The aim is to explore and interpret the statistical data derived

from the questionnaire responses while incorporating the overlapping perspectives of customers, the bank, and independent observers through a Venn diagram.

The initial data analysis phase involves descriptive statistics, which provides an overview of the collected data from bank customers. Descriptive statistics allow for generating frequency counts and percentages, enabling researchers to summarise and present the responses concisely and interpretably. By examining the frequencies and percentages of the questionnaire items, researchers gain insights into the prevailing trends and patterns within the customer responses. This statistical analysis facilitates a comprehensive understanding of the customer's perspectives, preferences, and experiences regarding technology-driven customer relationship management (CRM) practices in the UK retail bank.

The additional data is collected through web-based research from the banks and independent observers. This further research provides a broader context and perspective on the impact of technology on CRM in the UK retail bank. The data collected from the banks shed light on their strategies, implementation efforts, challenges, and outcomes related to technology adoption in CRM. Meanwhile, the data collected from independent observers, such as industry experts or consultants, offers an external viewpoint and insights into industry trends, best practices, and benchmarks.

A Venn diagram is utilised to effectively incorporate the overlapping perspectives of customers, the bank, and independent observers. The Venn diagram visually represents the three perspectives' commonalities, differences, and intersections. It provides a clear and concise visualisation of the areas of similarity and disparity, enabling researchers and stakeholders to identify shared perceptions, areas of convergence, and divergent viewpoints. The Venn diagram serves as a powerful tool for illustrating the complex relationships and interactions between these stakeholders, highlighting the holistic understanding of technology on CRM in the UK retail banking industry.

By combining the descriptive statistics derived from the customer responses with the data collected from the banks and independent observers, this study aims to provide a comprehensive and nuanced analysis of "the impact of technology on CRM in the retail banking sector in the UK". The interpretation of the statistical data analysis, item by item, allows for a detailed examination of the customer perspectives. Meanwhile, incorporating the banks' and independent observers' data, represented through the Venn diagram, offers a broader perspective and facilitates a more holistic understanding of the topic.

In conclusion, this study utilises systematic data analysis to examine and interpret the statistical data derived from customer responses. Incorporating additional data from banks

and independent observers, along with utilising a Venn diagram, allows for a comprehensive exploration of the impact of technology on CRM in the UK retail banking industry. Through this approach, valuable insights can be gained, assisting in developing effective strategies for improving customer satisfaction and enhancing CRM practices in the retail banking sector.

3.15 ETHICAL CONSIDERATION

When research is conducted, the moral and legal rights of the participants should be well considered. This usually ensures that the integrity and confidence of the research process will not be doubted. Maintaining a high standard of research ethics is crucial to achieving a high degree of moral standards for any research work.

Given the importance of ethics in conducting research and the challenges encountered, the university goes to a great extent to protect the dignity and safety of the research participants. The University of Wales Trinity Saint David has a committee to ensure that the researchers adhere to ethical standards and requirements. Therefore, the university research ethics committee has scrutinised and approved this research, EC526 TOBECHUKWU EZE 1605476.

However, making sure that all the processes of procedure required ethically must be put in place is the researcher's sole responsibility. Several ethical considerations were considered to ensure that the study was conducted appropriately. To comply with ethical considerations in conducting this research, all participants providing information in the questionnaire willingly gave their consent to participate in the survey and can withdraw at any time. They were also guaranteed protection through anonymity, and all information that may reveal their identity is strictly confidential. The research ensured that no personal data were required in the questionnaire, and respondents were willingly given the information and their experiences. The participants were free to respond only to questions they felt comfortable answering.

3.16 RESEARCH CHALLENGES

The whole world faced challenges during this period, and the researcher also encountered some challenges.

The researcher had earlier planned for two types of primary data collection: one for the general customers of the retail bank and the other for the bank staff. The bank staff were chosen in the first place because they are customers of the bank and employees. Therefore, they use bank technologies and have first-hand information on the impact of technology

because the customers bring feedback, complaints, and praise. However, it was challenging there due to the bank policies and directives discouraging employees from engaging in interview sessions. Instead, they referred to the bank website, allowing the researcher to explore web-based research.

The researcher had difficulty getting SPSS software as the university confirmed that they no longer have the licence for the software package.
Due to restrictions and government guidelines, the researcher could not attend different seminars previously scheduled as classroom exercise

3.17 CONCLUSION

The research methodology has been developed within this chapter, describing the stages of the research process. The research design, strategy, and approach are then operationalised into a protocol that gives a step-by-step procedure for data gathering.
This study, which examines the impact of technology on Customer relationship management in UK retail banks, was considered mixed-method research as the mixed-method approach was considered the most appropriate for this research. The justification for using the approach was provided, understanding the three domains of this research: the banks' customers, the bank's staff, and the independent observers.
This research's primary data collection tool was the online survey account opened solely to generate data from banks' retail customers. On the other hand, the web-based research was to get data about the experiences of the bank staff and the executive and what the independent observers have said about the impact of technology on CRM in UK retail banks.
The researcher explored Web-based research methods involving consultancy reports, the bank's annual reports and websites, and news media sites to get an expert view of the research topic. This is considered Web-based secondary research because it is textual information, making it more qualitative. Therefore, qualitative content analysis will be employed to systematically describe clustering and categorising non-numerical data by comparing it with the primary data.
As noted in the introduction, the research has two stages. The first consisted of a survey and questionnaire. As earlier examiners pointed out, the results were inconclusive. Thus, the discussion of sampling and so on has been presented in some detail, and the next chapter continues in that direction.

However, the utility of the first stage was most important in that it pointed to the need for deeper analysis and a broader scope of sources. The early part of the chapter deals with the second stage of the empirical work, which includes an exhaustive account of sources, which is the backbone of the research method adopted.

CHAPTER FOUR: PRESENTATION OF THE DATA

INTRODUCTION

The researcher regards the second part of the chapter, which deals with web-based sources, as the backbone of the research methods. It draws on data from vast internet sources.
In this chapter, data analysis is employed to present the first research descriptive statics, which produces frequency counts and percentages from the customers of the bank responses, as well as data gathered through web-based research from the banks themselves and independent observers. The aim is to explore and interpret the statistical data derived from the questionnaire responses while incorporating the overlapping perspectives of customers, the bank, and independent observers through a Venn diagram.
A Venn diagram is used as a clear and structured tool to visually present the three perspectives and demonstrate their similarities and differences, highlighting the commonalities and intersections of the perception.

The questionnaire, conducted from February to March 2021, has yielded results that align significantly with formal statistical reports, providing strong validation of the research. For further details, refer to the sources cited in the method chapter and later in this chapter.
This chapter presents a comprehensive set of results from the questionnaire, which identifies customer perceptions in the Venn diagram in Figure 2.5. The latter part of the chapter presents results gathered from various publicly available statistical sources, media, bank reports and statements by bank executives, further enriching the depth of our research.

Chapter 5 analyses and discusses the data in this chapter. This chapter also enables the author to elicit comparisons between the perceptions associated with the three perspectives and demonstrate the empirical content of conceptual framework.

4.1 DETAILED RESULTS OF THE QUESTIONNAIRE

The detailed results of which are divided into two parts. The first part, labelled DQ1- DQ7, describes the demographic aspects (DQ) of the questionnaire.

The second part labelled SQ1 -SQ19 survey questions, relates to various aspects of the relationship between customers and retail bank CRM Technologies they adopt. In other words, CRM developed in the banks in relation to customer demand.

4.2 ANALYSIS OF DEMOGRAPHIC VARIABLES DQ 1

Do you wish to participate?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes	173	100.0	100.0	100.0

Table 4.1 DQ1 Number of participats engaged By researcher

The presentation of Table 1 of this study shows the number of respondents willing to participate in the study. From the presentation of Table 1, the analysis was conducted using SPSS version 25, which the descriptive analysis shows that out of the 173 respondents. Table 1 shows that 173 respondents were willing to participate in the study to respond to the instrument's items with 100 per cent responses. The result shows that with the question of the Yes and No option asking the respondents for free participation, 173 people answered Yes and accurately responded to the questionnaire items. This part is basically asking for consent to carryout the survey as a NO answer will automatically discontinue.

Demographic Question 2

What is your gender?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Male	82	47.4	47.4	47.4
	Female	88	50.9	50.9	98.3
	Prefer not to say	3	1.7	1.7	100.0
	Total	173	100.0	100.0	

Table. 4.2 DQ2 Gender of the Respondents By researcher

This table shows the respondents information about their gender of the participants. Descriptive statistics with frequency counts were utilised to analyse the data collected from the questionnaire distribution. As presented in Table above out of 173 respondents that were engaged in this study, female respondents were 88. Females presented the highest in the sample due to the corresponding percentage of 50.9, and the 82 of males with the corresponding percentage of 47.4, whereas 3 respondents with 1.7 per cent were also counted that prefers not to specify their gender. Responses from these elements of unidentified gender stereotypes were meaningful to the research, and the researcher decided to collate them with other responses. The researcher also wanted to report every activity involved in the questionnaire administration during and after, which supported the data meaningfulness and the fundamental analysis.

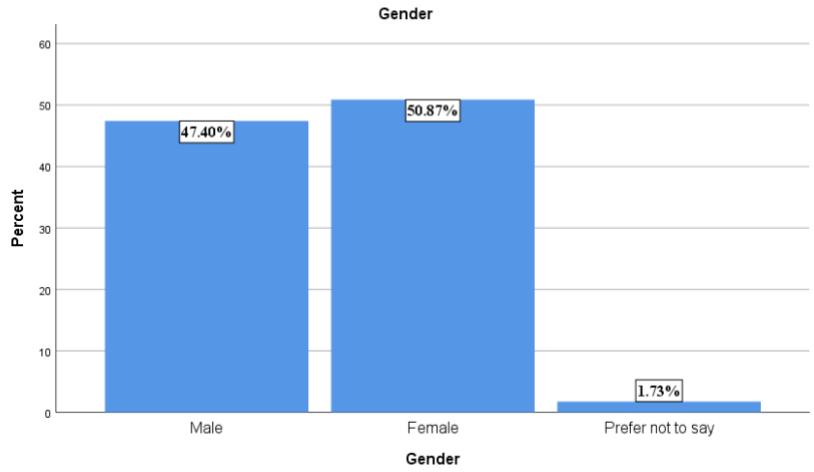


Figure 4.1 Bar Chart presentation of the Respondents' Gender

The graphical presentation of the respondents' gender shows that the female ratio in participation is slightly higher than their male counterparts and had few individuals who did not disclose their gender identity captured.

Demographic Question 3

What is your age?

The presentation of the finding in above table shows the respondents information about their Ages.

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	18 to 25 years	6	3.5	3.5	3.5
	26 to 40 years	86	49.7	50.0	53.5
	41 to 50 years	62	35.8	36.0	89.5
	51 or older	18	10.4	10.5	100.0
	Total	172	99.4	100.0	
Missing	System	1	.6		
Total		173	100.0		

Table 4.3 DQ3 Ages of the respondents By researcher

Descriptive statistics with frequency counts were utilised as an analytical tool in analysing the data collected from the questionnaire distributed to customers of the UK banks. The respondents' ages were categorised into four (4) as in 18 to 25 years, 26 to 40 years, 41 to 50 years and 51 and longer. As presented out of 173 respondents engaged in this study, 86 respondents were the highest in the sample from 26 to 40, with the corresponding percentage of 49.7%. Sixty-two respondents were following, which indicated from aged 41 to 50 with the corresponding percentage of 35.8%; 18 respondents were from the age of 50 and longer with the corresponding percentage of 10.4%; while six respondents with 3.5 per cent were within the age of 18 to 26. The presentation of the respondents' ages information as presented indicates that respondents between the ages 26 and 40 who are bank customers participated more in the study.

The result of the analysis, as shown suggests that the impact of technology adoption on customer relationship management in United Kingdom Banks on age would be high on the category from 26 to 40 years because they are more in the percentage. This result implies that customers aged 26 to 40 will be positively or negatively affected. This is most likely because the age group is the functional employment active age, and they would benefit from the acceptance of the technology within banking spheres. The age group can relate with the bank

technologically to explore through technology adoption, while the banks gain loyalty from its customers to increase productivity.

Demographic Question 4

What is your occupation?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Student	8	4.6	4.6	4.6
	Employed	107	61.8	61.8	66.5
	Self-employed	41	23.7	23.7	90.2
	Others	17	9.8	9.8	100.0
	Total	173	100.0	100.0	

Table 4.4 DQ4 Occupations By researcher

This table shows the respondents information about their occupation. The descriptive statistics with frequency counts were utilised as an analytical tool in computing the data collected from the questionnaire distributed online to UK bank customers. The occupations of the respondents were categorised into four (4) as in students, employed, self-employed and others. As presented in out of 173 respondents that were engaged in this study, who were also willingly participated in the study, 107 respondents in the employed category were the highest with the corresponding 61.8 per cent of responses; 41 respondents who were self-employed category followed with the corresponding 23.7 per cent of responses; 17 respondents in others category with the corresponding 9.8 per cent of responses, while eight respondents in students category with the corresponding 3.6 per cent responses. The analysis of this survey occupation question provides clear evidence of the impact of occupation of the UK bank customers in relation to the technology adoption for customer relationship management in the banking industry. It shows that respondents in the employed category were higher in their participation than other occupations out of the total 100 per cent of respondents in the study.

Therefore, the implication is that this result is that bank customers in the United Kingdom banks will be positively or negatively benefiting from the impact of technology adoption towards CRM. This is most likely because the impact of technology adoption towards

exercising customer relationship management between the banks and those customers in the category employed or who are working-class would improve their capacity to relate positively with the bank's officers.

Demographic Question 5

Do you have a bank relationship with any of the UK banks?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes	173	100.0	100.0	100.0

Table 4.5 DQ5 Respondents bank relationship By researcher

The presentation on the above table shows respondents have bank relationships in UK banks. From the presentation descriptive statistics utilises frequency counts to analyse survey questions. The item engaged in the analysis of this survey adopted 'Yes' and 'No' options to assess the respondents. The analysis shows that 173 respondents of the questionnaire the entire respondents responded with a 100 per cent 'Yes'. This implies that all the respondents have bank relationships in any UK banks in the study area. This result implies that all the customers who participated in the study have a relationship with one bank in the UK; therefore, they will share their experiences regarding technology adoption in CRM.

Demographic Question 6

How long have you had the bank relationship?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	1 to 5 years	16	9.2	9.2	9.2
	6 to 10 years	68	39.3	39.3	48.6
	11 to 15 years	62	35.8	35.8	84.4
	16 and longer	27	15.6	15.6	100.0
	Total	173	100.0	100.0	

Table 4.6 DQ 6 Length of relationship By researcher

The presentation of the finding in Table 6 of this study shows the respondents information about how long they had a relationship with their bank. The responses scale that assesses the respondents were categorised into four (4) as 1 to 5 years, 6 to 10 years, 11 to 15 years, and 16 and longer. As presented in Table.6, out of 173 respondents who willingly participated, 69 respondents were the highest in the sample who had relationships with their banks from 6 to 10 years (39.3 per cent).62 respondents followed, which the relationship with their banks spans from 11 to 15 years with the equivalent of 35.8 per cent. 27 respondents have had their bank relationship from 16 and longer years with the equivalent of 15.6 per cent, whereas 16 respondents have their bank relationship spanning from 1 to 5 years possess the equivalent of 8.2 per cent. The analysis of this survey question provides clear evidence of the impact of length of the relationship between the customers.

4.3 Survey Questions of Technology Adoption in Customer Relationship Management in UK Banks

Survey Question 1

Are you aware of the different technologies in our bank?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes		98.8	98.8	98.8
	No		1.2	1.2	100.0
	Total		100.0	100.0	

Table 4.7 SQ*1* *Awareness of the different tech* By researcher

The presentation in Table 7 of this study shows the respondent's awareness of the different technologies in their banks. The descriptive statistics of frequency counts utilise 'Yes; and 'No' responses from the respondents that help generate the results with percentages. Out of the 173 respondents sampled, 171 respondents accepted 'Yes' with 98.8 per cent equivalent, which implies that the respondents are aware of the different technologies in their bank, while 2 respondents with a 'No' answer and a corresponding 1.2 per cent only. This analysis reveals that the percentage response for the Yes category of respondents is higher, considering the respondent's decision.

The respondents' high percentage of 'Yes' responses necessitate the survey items to be judged that they are aware of the different technologies in their bank in the study area.

Survey Question 2

Do you use these technologies in getting your bank services?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes	158	91.3	91.3	91.3
	No	13	7.5	7.5	98.8
	Not interested	2	1.2	1.2	100.0
	Total	173	100.0	100.0	

Table 4.8 SQ*2 Percentage of adoption of tech* By researcher

The presentation of the finding in Table 8 of this survey shows the respondents' percentage of technologies. The descriptive statistics of frequency counts utilised three options, including 'Yes; 'No' and 'Not interested', to assess the respondents' reactions. Out of the 173 respondents sampled, 158 respondents accepted 'Yes', which correspondingly produced 91.3 per cent, while other respondents said 'No' with a corresponding 7.5 per cent. The high percentage of respondents from a 'Yes' category implies that they adopt these technologies to get their bank services in the study area.

Survey Question 3

Do you use these technologies in getting your bank services?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Branch	24	13.9	13.9	13.9
	Over the Phone	45	26.0	26.0	39.9
	Internet	99	57.2	57.2	97.1
	Others	5	2.9	2.9	100.0
	Total	173	100.0	100.0	

Table 4.9 SQ*3 Percentage of where respondent get services. By researcher*

The presentation in Table 9 of this survey shows the respondents' percentage of where they usually get their bank services to determine the impact of technology adoption on customer relationship management in UK banks. The descriptive statistics of frequency counts utilised four option categories including Branch, over the phone, internet and others to assess the

respondents' reactions. Out of the 100 per cent respondents sampled, respondents who were getting their banking services with the internet had 57.23 per cent responses. The respondents who usually get their banking services over the phone display 26.01 per cent responses, and 13.8 per cent of respondents usually get their banking services with Branch. In comparison, 2.89 per cent of respondents usually get their bank services with others.
It is observed that respondents who usually get their bank services with the internet has the highest percentage of responses and recognised the internet as the most utilised service in the banks.

Survey Question 4
How easy do you access these technologies in your bank?

Assessment options		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Very easy	54	31.2	31.2	31.2
	Easy	85	49.1	49.1	80.3
	Not easy	31	17.9	17.9	98.3
	Complicated	3	1.7	1.7	100.0
	Total	173	100.0	100.0	

Table 4.10 SQ*4* *Technology accessibility* by researcher

The presentation in Table 10 of this survey shows the respondents' percentage extent of easiness in accessing these technologies in their banks. The descriptive statistics of frequency counts utilised four option categories derived from the questionnaire, including Very Easy, Easy, Not Easy and Complicated as assessment options for the respondents' reactions. Out of the 173 respondents sampled, 85 respondents said it was easy for them to access their banks through these technologies accounting for 49.1 per cent. While 54 respondents that accounted for 31.4 per cent said, it was very easy for them to access these technologies in their bank. 31 respondents that accounted for 17.9 per cent said it was not easy for them to access these technologies in their bank. In contrast, three respondents that were accounted for 1.7 per cent said it was complicated for them to access these technologies in their bank.

Survey Question 5
Do you need assistance in getting your transactions with these technologies?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes	34	19.7	19.7	19.7
	No	136	78.6	78.6	98.3
	Not interested	3	1.7	1.7	100.0
	Total	173	100.0	100.0	

Table 4.11 SQ*5* *Percentage of getting transaction done with tech* by researcher

The presentation of this survey shows the respondents' percentage extent of easiness in accessing these technologies in their banks. The descriptive statistics of frequency counts utilised three option categories derived from the questionnaire: Yes, No, and Not interested as assessment options for the respondents' reactions. Out of the 173 respondents sampled, 133 respondents said 'No', which entails that respondents did not need assistance in getting their transactions done. In comparison, 34 respondents answered 'Yes', indicating that they need assistance in getting their transactions with these technologies done. However, three respondents said 'Not interested', which means they were neither in need of assistance nor not necessary that they need assistance in getting.

Survey Question 6

Do you feel it is safe when using these technologies?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Very safe	37	21.4	21.4	21.4
	Safe	107	61.8	61.8	83.2
	Not safe	17	9.8	9.8	93.1
	Worried	12	6.9	6.9	100.0
	Total	173	100.0	100.0	

Table 4.12 SQ*6* *Feeling while using the tech* by researcher

The presentation of this survey shows the percentages of the respondents' feelings when using these technologies. The descriptive statistics of frequency counts utilised four (4) option categories derived from the questionnaire, such as very safe, safe, not safe and worried as assessment options for the respondents' reactions. Out of the 173 respondents sampled,

107 respondents said they were safe, implying that respondents feel safe when using these technologies. 37 respondents said they were very safe, which implies that respondents feel very safe when using these technologies; 17 respondents responded they were not safe, whereas 12 respondents were worried when using these technologies. Thus, it is observed that a large proportion of the respondents said they were safe and even very safe when using these technologies to relate with the banks.

Survey Question 7

Have you had any fraud-related case(s) using these technologies?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes	36	20.8	20.8	20.8
	No	134	77.5	77.5	98.3
	Not aware	3	1.7	1.7	100.0
	Total	173	100.0	100.0	

Table 4.13 Frequency of fraud by researcher

The presentation of this survey shows the frequency of the respondents' fraud-related cases. The descriptive statistics of frequency counts were utilising three (3) option categories derived from the questionnaire such as Yes, No and Not aware as assessment options for the respondents' reactions. Out of the 173 respondents sampled, 134 respondents responded 'No', which implies that they did not have any fraud-related cases using these technologies. 36 respondents said 'Yes', which implies that they have had fraud-related cases using these technologies in the past, whereas 3 respondents responded that they were not aware whether or not they had any fraud-related issues or cases using these technologies. Thus, it is observed that a large proportion of the respondents said they did not have any fraud-related cases when using these technologies, and this becomes a criterion for judging this survey item.

Survey Question 8

Which threat for you is the highest perceived risk when you use these CRM technologies

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Branch closure	16	9.2	9.2	9.2

	Fraudulent transactions	51	29.5	29.5	38.7
	Mistake in transaction	23	13.3	13.3	52.0
	Criminal stealing of your identity	83	48.0	48.0	100.0
	Total	173	100.0	100.0	

Table 4.14 SQ8 Frequency of the perceived risk by researcher

The presentation of this survey shows the frequency of the respondents' pattern of threat that is the highest perceived risk when using these CRM technologies in the UK banks. The descriptive statistics of frequency counts utilised four (4) option categories derived from the questionnaire, such as 'branch closure, fraudulent transactions, mistake in the transactions, and criminal stealing of identity as assessment options for the respondents' reactions. Out of the 173 respondents sampled, 83 respondents said that criminal stealing of their identity was the highest perceived risk when they use these CRM technologies, 51 respondents said that fraudulent transaction was the highest perceived risk when using these CRM technologies. In contrast, others like a mistake in the transaction and branch closure were reported lower. However, criminal stealing of their identity was considered a major threat to them as the highest perceived risk when they utilise these CRM technologies with their banks in the study area.

Survey Question 9

What new technology in customer relationship management (CRM) excites you the most?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Internet banking	80	46.2	46.2	46.2
	Mobile banking	43	24.9	24.9	71.1
	ATM	21	12.1	12.1	83.2
	POS	6	3.5	3.5	86.7
	Others	23	13.3	13.3	100.0
	Total	173	100.0	100.0	

Table 4.15 SQ9 New technology in CRM by researcher

The presentation of this survey shows the frequency distribution of the new technology in customer relationship management that most excites the respondents. The descriptive statistics of frequency counts were utilising five (5) option categories derived from the questionnaire such as Internet banking, Mobile banking, ATM, POS and Others as assessment options for the respondents' reactions. Out of the 173 respondents sampled, 80 respondents, with 56.2%, said that the new technology in customer relationship management excites them most is Internet banking. 43 respondents with 23.9% stated that the new technology in customer relationship management (CRM) that excites them most is Mobile banking, 23 respondents with 13.3% stated that the new technology in customer relationship management that excites them most is Others.

Consequently, 21 respondents with 12.1% stated that the new technology in customer relationship management excites them most is Automated Teller Machine (ATM). In comparison, six respondents with 3.5% stated that the new technology in CRM excites them most is Point of Sale (POS). Thus, it is observed that a large proportion of the respondents recognise Internet Banking as the new technology in customer relationship management that excites them most.

Survey Question 10

If you are treated poorly in your bank, what will you do?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	File a formal complaint	10	5.8	5.8	5.8
	Speak to bank staff	134	77.5	77.9	83.7
	Walk away and open a new bank relationship with another bank	25	14.5	14.5	98.3
	Others	3	1.7	1.7	100.0
	Total	172	99.4	100.0	
Missing	System	1	.6		
Total		173	100.0		

Table 4.16 SQ10 Poorly treatment and what to do By researcher

The presentation of this survey shows the frequency distribution of the respondents' decisions if poorly treated in their banks. The descriptive statistics of frequency counts were utilising

four (4) option categories derived from the questionnaire, such as Filing a formal complaint, Speaking to bank staff, Walking away, and opening a new bank relationship with another bank and others as assessment options for the reactions of the respondents. Out of the 173 respondents engaged in the sample, 134 respondents, with 77.5%, said they will speak to bank staff if they are treated poorly in their banks. While 25 respondents with 14.5% stated that if they are treated poorly in their bank, they walk away and open a new bank relationship with another bank. Ten respondents, with 5.8%, stated that if they are treated poorly in their banks, they will file a formal complaint, whereas 3 respondents said that if they are poorly treated in their banks, they will resort to others.

Survey Question 11

Do you feel confident using these technologies?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	2	1.2	1.2	1.7
	Slightly Agree	13	7.5	7.5	9.2
	Agree	19	11.0	11.0	20.2
	Strongly Agree	138	79.8	79.8	100.0
	Total	173	100.0	100.0	

Table 4.17 SQ11 Percentage of confident when using tech by researcher

The presentation of this survey assesses the feeling of confidence of the respondents using CRM technologies. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 138 respondents Strongly Agreed that they feel confident using these technologies, which accounted for 79.8%; 19 respondents Agreed that they feel confident using these technologies and accounted for 11.0%. While 13 respondents slightly agree that they feel confident using these technologies, 2 respondents disagreed by stating that they do not feel confident using these technologies, while 1 respondent strongly disagreed.

Survey Question 12

Do you feel the information presented during the transaction is secured?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.2	1.2	1.2
	Slightly Agree	15	8.7	8.7	9.8
	Agree	25	14.5	14.5	24.3
	Strongly Agree	131	75.7	75.7	100.0
	Total	173	100.0	100.0	

Table 4.18 SQ12 Percentage of information security by researcher

The presentation of this survey assesses the respondents' feelings on if information during the transaction is secured as one of the roles of technology in banks. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 131 respondents Strongly Agreed that they have feelings that information presented during the transaction is secured, which accounted for 75.7%. While 25 respondents Agreed that they have feelings that information presented during transactions is secured, which accounted for 14.5%; 15 respondents Slightly Agreed that they have feelings that information presented during transactions is secured, and 2 respondents Strongly Disagreed with the assertion, whereas no respondents for Agreed options.

Survey Question 13

Do you feel your privacy is protected by bank data technology?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.2	1.2	1.2
	Disagree	2	1.2	1.2	2.3
	Slightly Agree	13	7.5	7.5	9.8
	Agree	27	15.6	15.6	25.4
	Strongly Agree	129	74.6	74.6	100.0

Total	173	100.0	100.0	

Table 4.19 SQ13 Privacy protection by researcher

The presentation of this survey assesses respondents' feelings on if information during a transaction is secured as a role of technology in banks. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree, and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 131 respondents Strongly Agreed that they have feelings that information presented during the transaction is secured, which accounted for 75.7%. While 25 respondents Agreed that they have feelings that information presented during transactions is secured, which accounted for 14.5%; 15 respondents Slightly Agreed that they have feelings that information presented during transactions is secured, and 2 respondents Strongly Disagreed with the assertion, whereas no respondent for Disagreed option.

Survey Question 14

Do you trust that these online transactions are real time?

Table 21 respondents trust that online transactions are real-time

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.2	1.2	1.2
	Slightly Agree	14	8.1	8.1	9.3
	Agree	35	20.2	20.3	29.7
	Strongly Agree	121	69.9	70.3	100.0
	Total	172	99.4	100.0	
Missing	System	1	.6		
Total		173	100.0		

Table 4.20 SQ14 Percentage trust on online real-time by Researcher

The presentation of this survey assesses the respondents' percentage of trust whether these online transactions are real-time as one of the roles of technology on CRM in the UK banks. The descriptive frequency analysis utilised five (5) option categories derived from the

questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree, and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 121 respondents Strongly Agreed that they trusted that these online transactions are real-time transactions, accounting for 69.9%. While 35 respondents Agreed on the trust that these online transactions are real-time, which accounted for 20.2%; 14 respondents Slightly Agreed on that same fate, while 2 respondents Strongly Disagreed on the trust that these online transactions are not real-time, which accounted for 1.22%.

Survey Question 15

Do you agree using these channels is convenient for you?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.2	1.2	1.2
	Disagree	1	.6	.6	1.7
	Slightly Agree	6	3.5	3.5	5.2
	Agree	17	9.8	9.8	15.0
	Strongly Agree	147	85.0	85.0	100.0
	Total	173	100.0	100.0	

Table 4.21 SQ15 Respondents agreed convenient by researcher

The presentation of this survey assesses the respondents' convenience in using the systems as one of the roles of technology on CRM in the UK banks. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 147 respondents Strongly Agreed that they experience convenience in using these systems or channels, which accounted for 85.0%. While 17 respondents Agreed that they experience convenience in using these systems or channels, which accounted for 9.3%; 6 respondents Slightly Agreed that they experience convenience in using these systems or channels, accounted for 3.5%; 2 respondents Strongly Disagreed while 1 Disagreed that they do not experience convenience in using these systems or channels.

Survey Question 16

Will you continue using these services in the future?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.2	1.2	1.2
	Disagree	2	1.2	1.2	2.3
	Slightly Agree	11	6.4	6.4	8.7
	Agree	30	17.3	17.3	26.0
	Strongly Agree	128	74.0	74.0	100.0
	Total	173	100.0	100.0	

Table 4.22 SQ16 Respondent decision on the future services By researcher

The presentation of this survey assesses the respondents' percentage of the decision to continue using these services in future. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire, such as Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 128 respondents Strongly Agreed that they will continue using these services in the future, which accounted for 74.0%. While 30 respondents Agreed that they would continue using these services in the future, which accounted for 17.3%, 11 respondents Slightly Agreed that they would continue using these services in the future, accounting for 6.4%. And 2 respondents Strongly Disagreed and Disagreed that they will not continue using these services in the future.

Survey Question 17

Do you believe that every information you need is given correctly and accurately by the bank?

	Frequency	Per cent	Valid Percent	Cumulative Percent
Strongly Disagree	1	.6	.6	.6
Slightly Agree	9	5.2	5.2	5.8
Agree	22	12.7	12.7	18.5

Strongly Agree	141	81.5	81.5	100.0
Total	173	100.0	100.0	

Table 4.23 SQ17 Given correct and accurate information by researcher

The presentation of this survey assesses the respondents' belief that every information needed is given correctly and accurately by the bank. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 141 respondents Strongly Agreed, with 81.5% believing that every information they need is given correctly and accurately by the bank. At the same time, 22 respondents Agreed with 12.7%, which believe that every information they need is given correctly and accurately by the bank. In contrast, others Disagree that not every information they need is given correctly and accurately by the bank.

Survey Question 18

Have there been mistakes in the past while using these bank technologies?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.7	1.7	1.7
	Disagree	2	1.2	1.2	2.9
	Slightly Agree	13	7.5	7.5	10.4
	Agree	33	19.1	19.1	29.5
	Strongly Agree	122	70.5	70.5	100.0
	Total	173	100.0	100.0	

Table 4.24 SQ18 Has there mistake while using the tech by reseacher

The presentation of this survey assesses if respondents have experienced mistakes in the past while using these bank technologies. The descriptive frequency analysis utilised five (5) option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 122 respondents Strongly Agreed, with 70.5% that there had been mistakes in the past while using these bank technologies. At the same

time, 33 respondents Agreed with 19.1% that there had been mistakes in the past while using these bank technologies; 13 respondents with7.5% also Slightly Agreed.

Survey Question 19

Was the mistake handled professionally?

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.6	.6	.6
	Disagree	1	.6	.6	1.2
	Slightly Agree	4	2.3	2.3	3.5
	Agree	27	15.6	15.6	19.1
	Strongly Agree	140	80.9	80.9	100.0
	Total	173	100.0	100.0	

Table 4.22 Response on how past mistake is handled by researcher

The presentation of this survey assesses whether the mistakes were handled professionally. The descriptive frequency analysis utilised five option categories derived from the questionnaire: Strongly Disagree, Disagree, Slightly Agree, Agree and Strongly Agree as assessment options for the respondents' reactions. Out of the 173 respondents engaged in the sample, 140 respondents Strongly Agreed, with 80.9% that the mistake was handled professionally. On the other hand, 27 respondents Agreed with 15.6% that the mistake was handled professionally; and 4 respondents with 2.3% Slightly Agreed that the mistakes in the past while using these bank technologies were handled professionally; while 1 respondent with 0.6% Strongly Disagreed and Agreed similarly, which means that the mistake was not handled professionally.

4.4 BANKS AND OBSERVERS PERCEPTION OF CRM TECHNOLOGIES

Having presented the detailed results of the questionnaire, which identifies the customer perceptions in the Venn diagram in Figure 4.2 below, the latter part of this chapter presents results gathered from various publicly available statistical sources, media, bank reports and statements by bank executives.

The two parts enable the author to input empirical content into Figure 4.2

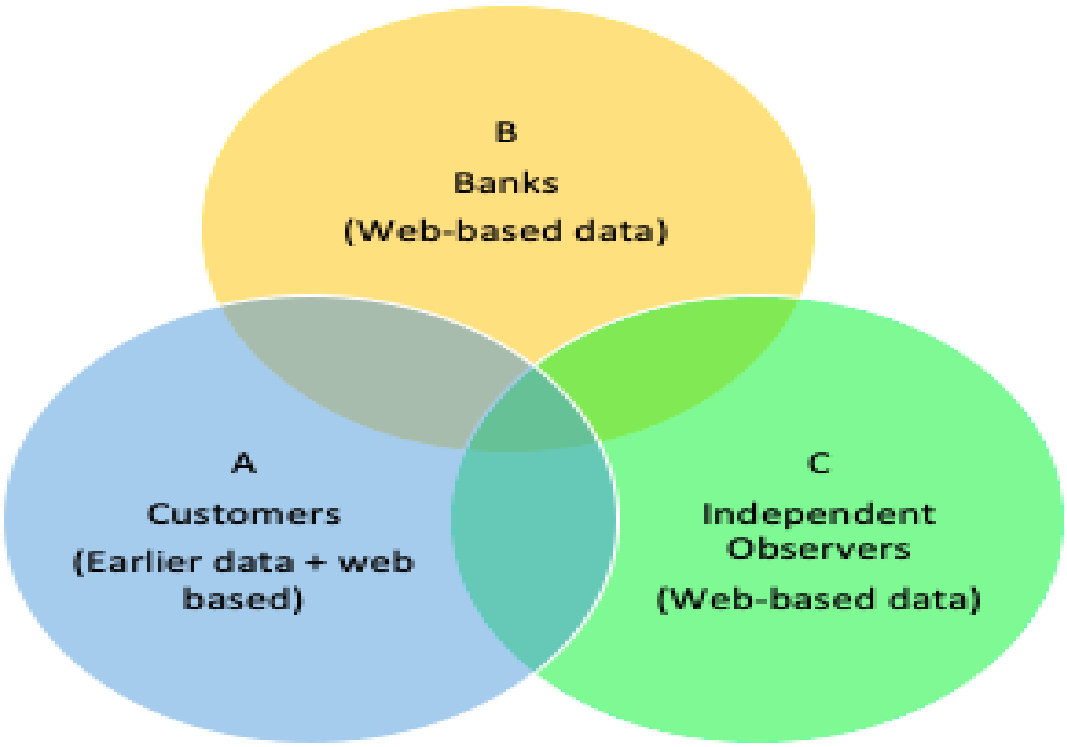


Figure 4.2 The research domain data By researcher

4.4.1 THE BANKS

According to Statista (2022), a report states that three-quarters of adults in Britain use online banking as a combination of speed, convenience and ease of use. In HSBC's chairman statement, the bank invested $6.1B in technology to build inclusion and resilience that will create long-term values and bring convenience to customers (HSBC, 2022). Convenience plays a crucial role in the customer's choice of banking services. Therefore, retail banks are more prepared to provide convenient services over any chosen channel. According to Jebarajakirthy and Shankar (2021), access convenience is a customer's perception of minimal effort and time needed to avail of the required service. Barclays (2018) highlights the importance of using technology to support customers and make managing their finances more manageable. It may involve developing and implementing digital tools and platforms that offer speed and convenience in customer transactions.

While technology has enabled greater convenience and accessibility for customers, it has also brought challenges such as fraud risks and security concerns. Banks have proactively leveraged technology to enhance customer experience and address these challenges. Still,

ongoing efforts are needed to ensure the responsible and secure use of technology in CRM (Feven et al.,2021)

Managing Director of Barclays, Catherine McGrath, said, "Barclays Bank is always looking for new ways to support our customers and make it easier for them to manage their finances (Barclays,2018)". Prioritising a range of advisors and partners and consulting with customers to identify their needs, what works best, and how technology can be developed to suit their changing needs. In HSBC's chairman statement, the bank invested $6.1B in technology to build inclusion and resilience that will create long-term values and bring convenience to customers (HSBC, 2022).

The head of the digital strategy at Barclays Bank shared what they are doing using the latest technology to solve customers' problems. She said it was all about utilising technology to benefit the customers, even if it meant changing the existing products and processes (Caywood, 2019). Three significant areas of focus were listed;

Banking is being used as a day-to-day need arises, and mobile banking serves the purpose. It is also a primary point of contact and is urgently needed to continue delivering this channel to meet customers' demands.

In this priority list, ensuring customers are globally accessible is the second one.

The most important thing is understanding what customers are going through and their expectations, and how they can use their strengths in financial technology to relate to and transact with them.

Working in the front line and various branch offices as a cashier, Martin Ross, the head of Education and content for Barclays Digital, has witnessed fraud's financial impact and emotional consequences on customers. "Technology has given us an easier life and easier way to do things, but it has also given fraudsters an easier way to commit a crime" (Ross,2019). According to research, young people aged 18 to 24 years are five times more likely to fall victim to scams than older people. Older people, 65 years and above, are more affected by impersonation scams where criminals pretend to be from the authorities and convince them to make payment by giving payment details (Ross,2019). Barclays is campaigning for the younger age group to educate them as they have grown up with technology and tend to be overconfident and more careless, falling prey to criminals. Barclays has invested so much in the latest technologies. Technologies that can monitor the

algorithm of people's spending and abnormal flag transactions where it proactively checks with the customer if they have initiated such transactions.
The bank has also controlled the customers, as they can temporarily block their cards to prevent fraud and freeze their cards.
To guard against impersonating scams targeting the elderly, Barclays has innovated a proactive way of verifying online whether the call is genuine.
The bank increasingly shares data with other financial institutions to prevent fraud and cooperate with the police.

Wallop (2022) noted from the yearly data that consumer card spending increased by 10.6 per cent in 2022 due to the lifting of all COVID-19 restrictions as customers went about doing their everyday business.
Another research also noted that Barclays urges the public to trust their gut because purchasing scams have risen to 70% yearly (Barclays,2022). They partnered with Dr Magan, a gut expert, to raise awareness about trusting a gut feeling in situations involving money and how it can protect customers from scams. To support the knowledge gap, in any case, if that does not feel right, stop, think about it, and delay.

Acknowledging that some customers are more vulnerable, Barclay's Bank launched an intelligent feature in their mobile banking app to be the first retail bank in the UK to select specific types of retailers or shops they can buy from (Barclays,2018). They said they had more of a vulnerable mind when developing this technology. However, all customers can smartly employ these features to safeguard their transactions. In the bank's view, it will benefit people with an addiction, gamblers, and the vulnerable, as giving customers more control is critical.

4.4.2 INDEPENDENT OBSERVERS

According to Statista (2022), a report states that three-quarters of adults in Britain use online banking as a combination of speed, convenience and ease of use. Banks and financial services embrace technological advances in customer relations and transactions, as can be illustrated in customers' usage of online banking, steadily growing since 2007 to 32% in 2022 and 93%. A review from McKinsey shows that as technology supports banks and their customers, they are also susceptible to associated risks (Bevan et al., 2016). The financial,

regulatory and reputational implications can be severe as the underlying technology's complexity and growing vulnerability is concerning.
According to a report from McKinsey, high-street banks are closing their doors and being replaced by technology, shaping customers' futures (Taylor & Cooke,2023).
Undoubtedly, technology has transformed banking in many ways, and customers are embracing it; most transactions, whether in branches or online, still involve human interactions (Rizzi & Taraporevala, 2019).
According to expert statistics, online banking has increased steadily since 2007. As the landscape of retail banking changes, the figures have shown that customers have continually used technology to get their transactions (Statista,2022). In the UK, it was also noted that online usage increased during the time under observation. The statistics showed that using a mobile device is preferred, as customers can use it online and in mobile banking. It is imperative that, as technological advancement continues, the current growth is noted in mobile banking, digital wallets, and fintech solutions directed to individual customers and activities.

RBS and Barclays have teams of experts in their various branches who assist customers in onboarding smoothly and perform broader tasks like teaching them how to stay safe online. Cavaglieri (2023) has a report of UK customer scorecards from actual customers or UK retail banks. The scorecard is made up of overall customer satisfaction with the brand. The survey was conducted in August 2022, with 4,525 customers attending it. Which UK made it clear that before a bank can be recommended, it has to meet 70% of its essential services.
New data shows that some unauthorised payment victims still suffer financial losses despite improvement (Cavaglieri, 2022). While mandatory reimbursement significantly boosts protection, banks still need to ensure that all fraud victims get support. According to Which magazine, a report from the Financial Ombudsman Service states that 73% of customers have a ruling against banks for fraudulent cases in different degrees (Cavaglieri, 2021).

While the report from KPMG (2021) states that Retail banks in 2020 have their financial services defined by an unexpected acceleration in technology and digital engagement, they are pushed by the direct impact of the COVID-19 pandemic. Banks deploy different technologies to transact and interact with customers for better services. Customers are removing manual processes and considerably reducing time wasted in transactions (KPMG,

2021)—changes like working from home and accelerating mobile banking with increased online payments and all other card payments.

According to a McKinsey report, today's economic and competitive challenges make traditional banking untenable. Competition is becoming more challenging, and technology has lowered barriers for customers to access bank services (Bhapkar et al.,2021).
Banks played a big role in using technology, digital products, and services during the world pandemic. They have continued improving their services' quality and availability (Bensley et al., 2020). Customers' behaviour is changing as every aspect of life, the way customer shop, and the trends of events and habits (Diffenhard,2022)
According to Mchenzie's report, in 2020, customers reduced demand for services in physical channels (branches and contact centres) and shifted to digital channels (Khon et al., 2022). The shift towards digital channels in the UK retail banking sector has been significant. With physical channels such as branches and contact centres closed or restricted, customers have had to turn to CRM technologies such as online banking, mobile apps, and contactless payment services to interact and transact with their banks.
In the same way, employees' attitudes towards customers, like the smile on their faces, greetings, making eye contact, and attitude and appreciation, were significant variables. In contrast, customers preferred using bank branches (Roberts and Campbell., 2007).
Similarly, the report, according to Mckenzie, illustrated the challenges branch users face and the reasons they prefer face-to-face services as a social consideration, for example, meeting tellers they know to socialise and sort out any issues and increased sense of expertise compared to being faced with voice prompt and notes (Khon et al., 2022). Undoubtedly, technology has transformed banking in many ways, and customers are embracing it; most transactions, whether in branches or online, still involve human interactions (Rizzi & Taraporevala, 2019). Customers generally have a positive perception of using technology for banking transactions, with a high level of satisfaction reported regarding ease of use, convenience, and speed (Zhu & Wang, 2022). However, there are some instances where customers have faced poor treatment or fraudulent cases, leading to dissatisfaction and needing to speak to bank staff or file complaints.
Managing the impact of technology on CRM in UK banks presents challenges, such as the increasing prevalence of purchasing scams (70% increase in 2022).

4.5 CONCLUSION

Technology adoption in banking has steadily increased since 2007, with 32% of transactions conducted online in 2022. However, this trend is not without its challenges. Banks and customers face risks associated with technological advancements, including financial, regulatory, and reputational implications. Traditional banking, in particular, is facing significant challenges due to economic competition and the accessibility provided by technology. High street banks are responding by closing their physical branches and transitioning to technology-driven services, thereby shaping the future of banking. While technology has transformed banking, human interactions still play a significant role in most transactions.

Banks have responded by enhancing the quality and availability of their digital products and services. Customer behaviour is changing, and the shift towards digital channels in banking has been significant, driven by the closure or restrictions of physical branches. While technology has improved banking services, customers still value human interactions and appreciate employees' attitudes in branch settings. Online banking in Britain has become widespread due to its speed, convenience, and ease of use. Challenges related to technology in banking include scams and the need to educate younger customers about potential risks. Customers feel safe using technology for banking transactions, although some express concerns about fraud, identity theft, and transaction mistakes.

CHAPTER FIVE: DISCUSSION

5. INTRODUCTION

The main aim of the study is to explore technology's impact on customer relationship management in UK retail banks over the last 40 years and the implications for the future. This chapter discusses the empirical work presented in chapter four in greater depth. It is structured to concentrate on discussions of the research framework, the Venn diagram, and describes the content of each subset.

As stated in the first paragraph of this thesis, the evolution of ideas during the research can be divided into 2 phases. First, empirical research in 2021, based on a sample survey of bank customers, was presented in an earlier version, provided valuable insights into the interface between technology and UK retail bank customers, and led to a second phase. The second phase compared three perspectives: the views of the retail banks about customer responses, the responses of actual customers from the banks, and the opinions of independent observers. The thesis concerns the perspectives of technological change represented in CRM over the past 40 years.

This chapter five also leads into a discussion of ideas that emerged in the 1st and 2nd phase of the research. This phase is to discuss the presentation of data as presented in the previous chapter, chapter 4. Sufficient literature indicates that customers awareness and acceptance of technology in UK retail banks and in the other hand the challenges faced while using the CRM technology in UK retail bank. The future relationship between retail bank CRM technologies and customers, particularly given projected possible technological changes. In other words, it opens the research to considerations about the coevolution of CRM technologies and customer demand. The process of coevolution involves retail banks adopting CRM technologies in response to competition and evolving customer expectations, which in turn leads to further expansion of technologies, responses of customers and so on in what might be called a virtuous cycle of technological developments and customer responses. The Vein Diagram offers a unique approach that analyses the technological adoption of individuals, banks, and accounts by independent observers, meets research objectives, and answers research questions. Applying this model to the study, the researcher aims to gain a deeper understanding of the impact of technology adoption and usage in UK banks and to ensure the validity and reliability of the data.

In line with the empirical analysis, the researchers also incorporate the insights from the literature review conducted in the thesis.
The main objectives of this chapter are to link the factors in the Venn diagram and the literature earlier reviewed, identify them, and provide appropriate explanations using the research objectives and research questions.

5.1 TECHNOLOGY ADOPTION MODEL

Technology acceptance and adoption models are two different but related concepts used in information systems and technology management to understand how individuals and organisations interact with and adopt new technologies. These models help researchers and practitioners predict and explain the factors that influence the acceptance and adoption of technology. Here is an overview of both concepts:

Technology Acceptance Models (TAM): TAM focus on understanding individuals' perceptions and attitudes towards using a particular technology. According to Davis (1986), TAM is a widely recognised framework that explains adopting and accepting new technology. It posits that perceived usefulness and perceived ease of use are critical factors in determining an individual's intention to use a particular technology. TAM is based on the idea that the perceived ease of use (how easy a technology is to use) and perceived usefulness (how beneficial a technology is) significantly influence an individual's intention to use a technology.
Technology Adoption Model: These Models are comprehensive in scope, considering individual and external factors that influence technology adoption at the organisational or societal level. They provide a holistic view of how technologies are adopted and diffused within organisations or societies (Miller,2015).
Understanding these models is not just an academic exercise. It can have real-world implications for researchers and practitioners, inspiring them to design more user-friendly technologies or develop strategies to encourage technology adoption at the organisational or societal level. Both models are valuable tools for those seeking to understand and facilitate the successful implementation of new technologies, and they offer a pathway to continuous improvement and innovation in the field.

The Venn diagram, a visual representation that blends acceptance, adoption, and adaptation concepts, is particularly important in the context of the thesis's aims. It places greater emphasis on the concept of adoption, which is central to the discussion of technology acceptance and adoption models.

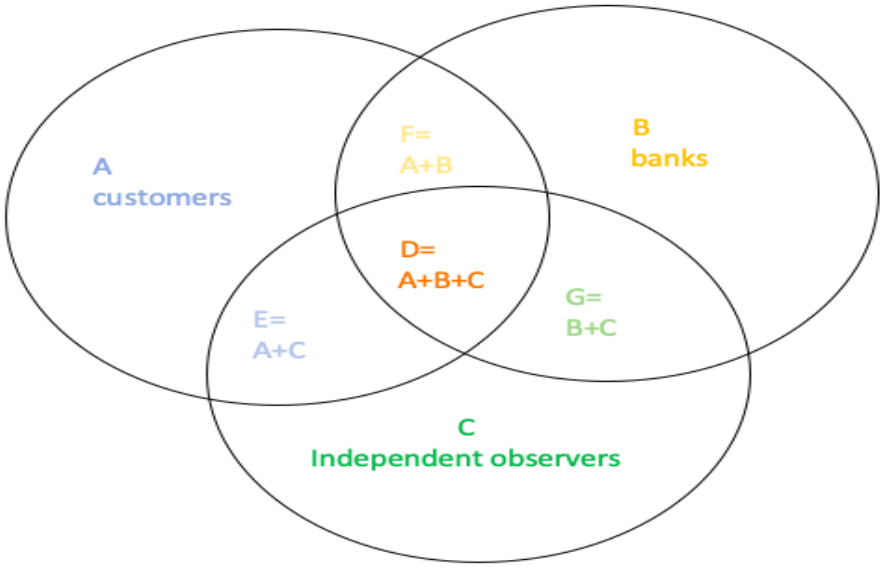


Figure 5.1 Technology acceptance Framework By researcher

5.2 TECHNOLOGY PERCEPTIONS AND EXPERIENCES DISCUSSIONS

5.2.1 CUSTOMERS DISCUSSION: A

The data provided by retail customers of UK banks offers several key insights into customer experiences and perceptions of technology in banking. This discussion will analyse the available data, placing them within the broader context of existing literature on banking technology adoption, customer experience, and the perceived risks and benefits of CRM technology in retail banking.

Demographics and Awareness of Bank Technologies

The demographic composition of the 173 respondents reflects a nearly equal gender split (50.9% male, 47.4% female), suggesting that both genders engage with banking technologies in similar proportions. Additionally, 91% of respondents expressed awareness of bank technologies, which is consistent with the findings from other studies on the rapid digitalisation of banking services.

For instance, research by Statista (2022) indicates that the adoption of online banking in Great Britain increased from 23% in 2007 to 93% by 2022. This significant rise demonstrates how technological awareness has permeated the banking sector, influenced by increasing internet access, smartphone penetration, and a growing preference for digital over physical banking channels (Statista, 2022). The research by Clark et al., (2024) agree that there are growing digital over physical by suggesting communities have been impacted by the closures of bank branches where there are no alternative channels to interact and transact.

Moreover, literature on technology adoption, such as Wuster et al. (2024), suggests that technological awareness is a crucial precursor to adoption. In this case, the high awareness levels suggest that UK banks have effectively introduced and communicated their technological offerings to customers, a testament to their success in this area and a source of confidence for the industry, leading to widespread acceptance.

Preferences for Banking Channels

The data on preferred banking channels underscores a significant shift towards digital services. With 57.2% of respondents using Internet banking and 27% using mobile banking, compared to just 13.9% who continue to rely on physical branches, the dominance of digital banking is clear. Findings in contemporary literature frequently emphasise the growing role of digital banking. As noted in the report from, Statista (2022) documented the increase in online banking usage to 93% by 2022, affirming that Internet banking has become the predominant method for managing finances.

Moreover, this shift towards digital channels aligns with the literature on customer convenience and banking innovations. Valenti and Alderman (2021) argue that the COVID-19 pandemic accelerated digital banking adoption, as physical restrictions forced customers to explore alternatives such as online and mobile banking. Their findings, which showed a sustained "digital momentum," are supported by the extract's data, where respondents indicate a preference for digital channels even post-pandemic. The increased reliance on the Internet and mobile banking suggests that these channels provide the convenience, speed, and ease of use that customers value, a point that is reiterated in the observations by Strohm, Horton, and Aldrich (2023), who argue that the flexibility of digital banking is unparalleled.

Perceived Risks of CRM Technologies

Despite the widespread adoption and positive reception of banking technologies, data also highlights the perceived risks associated with digital banking, particularly regarding security concerns. The most significant risk, as perceived by 48% of respondents, is identity theft, followed by fraudulent transactions (29.5%), mistakes in transactions (13.3%), and branch closures (9.2%). These concerns are well-documented in academic literature, with studies by Claessens et al. (2002) and Luo et al. (2010) identifying identity theft and online fraud as significant obstacles to adopting digital financial services.

Perceived security risks often hinder the adoption and continued use of new technologies. However, in this case, despite concerns about fraud and identity theft, a large percentage of respondents—94.8%—acknowledged that digital banking channels provide significant convenience. It reflects findings in the literature, where users often weigh the benefits of technology (speed, ease, and accessibility) against the potential risks (Rogers, 2003). In many cases, the perceived convenience of digital banking outweighs security concerns, provided that banks are perceived as having robust safeguards in place.

Customer Responses to Poor Service

The customers data also highlights customer responses to poor service when using digital banking technologies. A significant majority (77.5%) would prefer to speak to bank staff when faced with poor service, while 14.5% would walk away and open an account with a different bank. This finding is consistent with literature on customer behaviour and service recovery, such as the work by Hwang (2024), which found that customers value the ability to resolve issues directly with service providers. In the context of digital banking, this suggests that while customers appreciate the convenience of technology, they also expect the option for human interaction when service issues arise.

Confidence in Using Technology

79.8% of respondents strongly agree they feel confident using banking technology, with only 1.8% expressing disagreement. This aligns with existing studies on user confidence in technology, such as the Technology Acceptance Model by Davis (1986), which posits that perceived ease of use and usefulness influence users' attitudes towards technology. In this case, the high levels of confidence reflect the usability and utility of banking technologies, as well as the banks' success in building trust and reliability in their digital platforms.

Continued Use of Digital Banking Channels

Post-pandemic research, such as that conducted by Deloitte, echoes the trends observed in the extract. The Deloitte study found that the majority of customers plan to continue using digital channels for routine banking tasks such as fund transfers (76%), bill payments (80%), and account inquiries (72%) (Valenti & Alderman, 2021). This continuation of digital banking adoption, even after the pandemic, underscores the convenience and efficiency of digital platforms, reassuring the audience about the future of digital banking.

The extract further emphasises this trend, with 91.3% of respondents indicating that they will continue using digital banking technologies in the future, while only 2.4% disagree. These figures align with the broader literature on the sustained impact of digital banking innovations, where convenience, availability, and ease of access drive long-term adoption. Notably, Strohm et al. (2023) observed that technology allows customers to manage their finances anytime, anywhere, reinforcing that these digital solutions are now deeply embedded in customer behaviour.

The data presented a comprehensive snapshot of customer experiences and perceptions of banking technologies in the UK, with clear support from the broader literature. The findings highlight the widespread adoption and continued use of digital banking channels, the perceived convenience of these technologies, and the security risks that some customers associate with them. Overall, the shift towards CRM technology in retail banking, driven by ease of use, convenience, and post-pandemic digital momentum, is well-established in the empirical data and the academic literature, instilling optimism about the industry's future.

Accessibility and Ease of Use of Technology in Banking

Most retail customers find banking technologies accessible, with 31.2% rating access as "very easy" and 49.1% as "easy." This indicates a broad acceptance of digital banking technologies, with over 80% of customers finding these platforms user-friendly. The fact that 17.9% find access "not easy" and 1.7% describe it as "complicated" highlights a minority group for whom banking technology still poses barriers, potentially related to digital literacy, age, or accessibility issues.

This research has uncovered key findings that underscore the widespread adoption and continued use of digital banking channels, the perceived convenience of these technologies, and the security risks that some customers associate with them. These findings are in line

with the literature, as demonstrated by Clark et al. (2024), whose research shows a significant increase in retail bank closure.

While digital platforms are widely accepted, there is a clear need for further research to improve inclusivity. Investigating whether these groups are demographically or technologically distinct could provide potential avenues for improvement through targeted interventions, such as simplified interfaces or enhanced customer support.

The findings underscore the significant penetration and adoption of banking technologies, particularly online and mobile banking, among UK customers, as highlighted by (Statista,2022). The data from customers of the bank are in agreement with the high levels of awareness and usage, reflecting a broader trend observed in the literature, where digital banking has increasingly become the preferred method for managing finances due to its convenience, speed, and accessibility. While most customers report feeling safe and confident in using these technologies, a significant minority of customers who struggle with access remain concerned about security risks, including data privacy breaches, fraud, and identity theft. These apprehensions, consistent with existing research on technology adoption, highlight the ongoing need for banks to address and mitigate perceived risks through enhanced security measures and customer education. Stressing the need for ongoing monitoring of customer satisfaction and security concerns will be crucial to ensuring that these technologies remain effective and trusted by all users, with a sense of security and confidence in the future of digital banking.

Despite the concerns raised, the overwhelming majority of respondents express strong confidence in the continued use of digital banking channels, highlighting the substantial value they place on the convenience offered by these technologies. This aligns with the literature, which suggests that perceived benefits often outweigh the risks when adopting new technologies. As digital banking continues to evolve, banks must remain vigilant in addressing their customers' functional and security concerns to maintain trust and foster long-term engagement with these platforms.

5.2.2 THE BANKS DISCUSSION: B

Over the past 40 years, CRM technology in UK retail banks has shifted from manual processes to highly sophisticated, data-driven platforms that enable banks to offer personalized services and improve overall customer experience.

Evolution of CRM in Retail Banking:

The progression from basic record-keeping systems to advanced, integrated CRM platforms reflects a growing focus on leveraging customer data. The emergence of CRM solutions in the early 2000s was pivotal in integrating customer data across various channels and touchpoints. This shift allowed banks to provide personalized services, improve marketing efforts, and streamline operations (Matala, 2024).The role of CRM in enhancing customer experience is underscored by its ability to support online and mobile banking, which allows customers to access self-service options and improve overall engagement (Lee & Park, 2022).

Technological Advances:

Online and mobile banking represent significant milestones in developing CRM technologies in UK retail banks. As described, the rise of online/Internet banking provided customers access to banking services remotely via secure Internet connections. The online data shows that retail banks have developed robust CRM technologies to manage these remote transactions and ensure customer satisfaction through seamless access to account information, bill payments, and funds transfers (Lee & Park, 2022).

From the literature, mobile banking has been proven to advance the banking experience further by allowing customers to access services from computers, smartphones, and tablets to make transactions on the go. According to the bank's websites, this technology made banking more convenient, especially for customers who were always moving, as they could transact online and on mobile banking applications. Mobile banking applications have become sophisticated, offering features such as transaction confirmations, cheque payments, spending alerts, and even the ability to freeze cards, giving customers more control over their financial activities (Chawla & Joshi, 2021).

Shifts in Customer Behaviour:

World retail banking report to illustrate shifts in customer preferences. These reports show a marked increase in customer adoption of online and mobile banking channels, particularly during the COVID-19 pandemic. The data on preferred banking channels shows that the majority of consumers (57%) prefer Internet banking over traditional branch visits. At the same time, mobile banking has also seen a surge in use, with 55% of consumers favouring this option, up from 47% before the pandemic. This shift underscores the importance of CRM technologies in adapting to customer demands for digital-first experiences (Nambiar & Bolar, 2023).

Despite the growing preference for digital channels, physical bank branches remain relevant to a certain extent, as evidenced by Barclays' 2022 report. While many customers still consider physical infrastructure necessary, fewer individuals visit bank branches regularly. The survey data shows that about 13.9% continue to rely on physical branches, even though the dominance of digital banking is clear. It highlights a gap between customer perceptions and their actual behaviour, further emphasizing the role of CRM in bridging this gap through more accessible and efficient digital banking solutions.

Security and Fraud Concerns:

In addition to improving customer service, CRM technology has played a critical role in addressing security concerns in online banking. HSBC (2019) raises the issue of increased fraud and scams during the cost-of-living crisis, in which criminals exploit their vulnerable customers. According to the survey data, 48% of respondents perceived identity theft risk, followed by fraudulent transactions (29.5%), mistakes in transactions (13.3%), and branch closures (9.2%) despite the whole positives in CRM technology.

Barclays' fraud prevention efforts illustrate how modern CRM technology and advanced algorithms can proactively identify and flag suspicious transactions (Ross, 2022). Barclays Bank agrees that customers fall prey to security and fraud; however, the bank's use of data-sharing protocols and collaborations with law enforcement agencies, alongside educational campaigns targeting young and vulnerable customer groups, showcase how technology supports customer education and crime prevention.

Additionally, the bank introduced intelligent features like "card freeze" and purchase control, allowing customers to block transactions or restrict spending with specific retailers. This is

particularly beneficial for those prone to gambling or addiction. These features demonstrate how CRM technologies have evolved to offer better customer protection while enabling individuals to exercise more control over their financial behaviours.

It highlights the need for advanced CRM systems that provide customer service, safeguard customer information, and detect fraudulent activities.

According to Nambiar and Bolar (2023), contactless payment solutions, including debit and credit cards, mobile payments, Apple Pay, Google Wallet, and different card payment methods, have also grown in popularity. Contactless payments rose significantly after the pandemic and remain relatively safe, constituting only about 4% of card fraud. Again, it underscores the importance of security-focused CRM solutions in building trust and safeguarding transactions in retail banking.

Social Media and CRM

Social media platforms allow banks to engage with customers in real-time, provide support, and gather valuable insights. The bank report shows that social media has evolved into a 24/7 communication channel that allows banks to maintain an ongoing dialogue with customers, enhancing trust and transparency (Geyer, 2022). The report from the customers survey (77.5%) would prefer to speak to bank staff when faced with poor service, while 14.5% would walk away and open an account with a different bank.

Social media has emerged as a crucial factor in modern banking success. Its ability to represent a bank's brand effectively, create awareness, build relationships, and drive traffic to digital platforms provides a significant advantage (Tsouni, 2023). The immediacy of customer interactions on social media platforms also facilitates faster responses and enables valuable conversations that can influence customer behaviour and satisfaction (Tsouni, 2023). Social media platforms have also allowed banks to close the communication gap, offering an alternative means to address customer concerns in real time, creating a more responsive and accessible customer service environment. By integrating social media into their CRM systems, retail banks can offer personalized services and improve customer confidence through constant brand visibility.

Cloud Technology and CRM Advancements

Alongside social media, cloud technology has revolutionized CRM in retail banking by enabling flexible and secure data management (Yuril, 2022). Banks no longer rely solely on physical servers to manage their operations, as cloud infrastructure efficiently handles core banking functions remotely. This shift to the cloud has streamlined internal operations and facilitated a better omnichannel experience for customers. Through cloud-based solutions, retail banks can securely store customer data and access it whenever needed to provide personalized services or address customer queries. The flexibility provided by the cloud also enables banks to innovate continuously, improve their agility, and meet evolving customer expectations more efficiently.

Barclays and HSBC, two leading banks, have proactively embraced digital innovations to enhance customer experience. Their significant investments in technology have led to the use of digital platforms that simplify customer interactions and financial management. Barclays, for instance, has made mobile banking a primary point of contact for customers, aligning with customer preferences and ensuring the availability of digital services across global markets.

However, embracing technology has challenges, including data privacy issues, fraud, and scams (Ross, 2022; Bhat, 2024). The COVID-19 pandemic further accelerated the shift towards digital banking services, particularly with the increased use of online and mobile banking applications. As restrictions lifted, banks noticed increased purchasing scams, prompting further investment in fraud prevention technology. Barclays, for instance, encouraged customers to trust their instincts in financial matters, emphasizing the importance of intuition in safeguarding against fraud, thereby empowering customers to play an active role in their financial security.

The evolution of CRM technology over the past four decades has been a game-changer for UK retail banking. From manual processes to sophisticated, data-driven systems, banks now leverage customer data to offer highly personalized services while enhancing security and operational efficiency. The integration of online and mobile banking technologies, alongside contactless services and social media engagement, illustrates how CRM technology has continued evolving, addressing customer needs and security concerns. UK retail banks have transformed how they engage with customers by utilizing CRM technologies to enhance customer experience and improve security measures. As CRM technologies evolve, the retail

banking industry will become more customer-centric, focusing on security, personalization, and seamless digital interactions.

5.2.3 INDEPENDENT OBSERVERS DISCUSSION:C

It is necessary to face a question that the researcher has avoided so far: To what extent can observers be independent? In section C, the independent observers present a comprehensive analysis of CRM technology in retail banking in the UK, focusing on its impact on customers, banks, and the overall industry. This discussion is within an academic context, drawing upon various sources, including bank reports, statistical data, expert commentaries, and media comments.

Independent observers have closely analysed and evaluated the impact of technology on customer relationship management (CRM) implementation, focusing on its success in benefiting customers and banks.

This summary examines the views of independent observers, analysing the success of technology in CRM implementation for customers and banks with potential progress in the future.

The success of technology in CRM implementation, particularly its positive impact on customers, has been widely recognised.

Customers experience:

The introduction of technology has significantly enhanced customer experiences by providing convenient and accessible banking services.

It aligns with contemporary research on digital transformation in financial services, such as the work by Meah (2023), which emphasises the role of real-time analysis and AI in enhancing customer service. Customers can now easily manage their accounts, make transactions, and access a wide range of services through online and mobile platforms, resulting in improved convenience, speed, and efficiency (Wright & Wilson, 2023).

This shift towards digital banking has improved customer experience and increased operational efficiency for financial institutions. “With the help of digital technology, banks can now process transactions faster, reduce costs, and offer personalised services to customers” (Meah, 2023).

Operational efficiency for banks:

With the increasing demand for improved customer experience, efficiency, and security, banks are leveraging innovative technologies such as blockchain, cloud, AI and machine

learning, big data, biometrics, Robotic process automation (RPA) and mobile embedded devices to enhance their operations and services. Each technology uniquely improves the capabilities of existing bank solutions and offers new unique opportunities" (Klimenko, 2023).

According to Deloitte, "how we interface with technology has become more natural, contextual, and ubiquitous—think of the progression from keyboards to mouse to touchscreens to voice and the consequent changes in how we now manipulate onscreen data" (Cook et al., 2019). The KPMG report has customer concerns: 86% of the customers say that data privacy is a growing concern for them, and 68% are concerned about the level of data being collected.

Moreover, technology has enabled banks to personalise their offerings based on customer data, increasing customer satisfaction and engagement.

Adoption trends and customer behaviour:

Banks can gain insights into customer behaviour and preferences through data analytics and AI-powered tools, allowing for targeted campaigns and tailored product recommendations. This level of personalisation strengthens customer relationships and fosters loyalty.

According to Statista (2022), it was indicating that three-quarters of adults in Britain use online banking due to its speed, convenience, and ease of use. The adoption of online banking has steadily increased since 2007, reaching 57% in 2022. It highlights the trend of customers embracing technological advancements in banking.

Statista report supports the growth of online banking. It notes that customers in the UK have increasingly used technology for their transactions, with mobile devices being the most preferred method.

Customers generally have a positive perception of using technology for banking transactions, finding it easy to use, convenient, and fast.

However, poor treatment or fraudulent cases can lead to dissatisfaction and the need to speak to bank staff or file complaints.

One of the challenges highlighted in managing the impact of technology on CRM is the increasing prevalence of purchasing scams, with a significant 70% increase reported in 2022. This underlines the need to educate younger customers who may need to be more confident and careful when using technology for banking transactions (Sanchez, 2023).

Data privacy and security concerns:

While acknowledging the benefits of CRM technology in retail banking, there are growing concerns about data privacy and security.

A McKinsey review emphasises that banks and their customers are susceptible to associated risks as technology evolves. The complexity and growing vulnerability of underlying technology pose financial, regulatory, and reputational implications.

Again, high street banks are closing their doors and being replaced by technology, shaping the future of customer interactions. While technology has brought significant changes to the industry, human interactions still play a role in most banking transactions, whether in branches or online.

Overall, the analysis highlights the widespread adoption of online banking and the impact of technology on the banking sector. While customers benefit from the convenience and ease of technology, there are also associated risks. It is worth mentioning that despite improvements in unauthorised payment protection, some victims still experience financial losses. The financial ombudsman service reported that 73% of customers had varying rulings against banks in fraudulent cases. This highlights the importance of banks ensuring support for all customers, especially fraud victims.

It underscores the ongoing transformation of banking and the increasing reliance on technology in customer interactions and transactions.

Balancing technology and human interactions:

Advancements in mobile banking, digital wallets, and fintech solutions have adapted to individual customers' needs and activities.

Banks assist customers in getting comfortable with using technologies. RBS and Barclays have dedicated teams of experts in their branches to onboard customers smoothly and educate them on staying safe online.

A report from Which presents UK customer scorecards based on overall customer satisfaction with different banks. The survey conducted in August 2022 included 4,525 customers, and banks must meet a minimum threshold of 70% in their critical services to be recommended by Which UK.

A KPMG report stated that retail banks experienced an unexpected acceleration in technology and digital engagement in 2020 due to the direct impact of the COVID-19 pandemic, where there was a total lockdown, and everyone relied on technology to get their transaction. Banks have deployed various technologies to enhance customer interactions and transactions, removing manual processes and reducing transaction times. Factors such as remote work, increased mobile banking usage, and a rise in online and various card and wifi payments have contributed to these changes.

Retail banks in the UK are making different efforts to support CRM technological adoption and highlight the importance of customer satisfaction and the challenges of fraud protection. McKinsey's report highlights the changing landscape of the banking industry due to economic challenges, competition, and technological advancements. It suggests that traditional banking practices are becoming unsustainable due to increased competition and easy access to bank services through technology.

It acknowledges the role of banks in utilising technology and digital products and services, particularly during the global pandemic. Retail banks have tried to improve the quality and availability of their services to meet evolving customer needs. It equally emphasised the shifting behaviour of customers in various aspects of life, including shopping, travel, and habits, which technological advancements and changing trends have influenced. This shift from physical channels such as branches and contact centres to digital channels in the UK retail banking sector can be associated with the restrictions and closures during the pandemic; customers had to rely on online banking, mobile apps, and contactless payment services to interact and transact with their banks.

While customers generally feel safe using technology for banking transactions, a small percentage express concerns about technology-related risks such as fraud, identity theft, and transaction mistakes. This indicates the importance of maintaining robust security measures and addressing customer concerns to build trust and confidence in digital banking. However, observers highlight the need for continuous attention to data privacy, security, and ethical considerations. As the reliance on customer data increases, banks must ensure robust data protection measures and adhere to regulatory requirements. Transparency and trust in data handling practices are crucial for customer confidence and loyalty.

Additionally, observers stressed that while technology brings numerous benefits, it should only partially replace human interaction in CRM. Banks must balance technology and human touchpoints to provide a personalised and empathetic customer experience. There will always be situations where customers seek human assistance, and banks should ensure adequate support is available.

Banks benefits

The success of technology in CRM implementation extends to retail banks as well. Technology has streamlined banking processes, reducing manual intervention and improving operational efficiency (Nambiar & Bolar, 2023). Automated systems, self-service options, and data-driven insights have enabled retail banks to handle more extensive customer

interactions while optimising resource allocation. It offers cost savings, increased profitability, and enhanced competitive advantages for banks.

A McKinsey report discusses branch users' challenges and preferences for face-to-face services. The social aspect of meeting familiar tellers and the perceived expertise offered in person are cited as reasons for this preference (Khon et al., 2022). Additionally, in the same way, employees' attitudes towards customers are essential, such as smiling, greeting, making eye contact, and showing appreciation. These factors were significant variables while some customers still prefer bank branches, highlighting the impact of customer service on the overall banking experience.

While technology has transformed banking, and customers are embracing it, the report emphasises that most transactions, whether in branches or online, still involve human interactions. This indicates the continued importance of personalised customer service in banking.

The future

Looking towards the future, independent observers anticipate further progress in technology-driven CRM implementation. Advancements in AI, machine learning, and predictive analytics hold the potential for more sophisticated customer segmentation, personalised experiences, and real-time decision-making. Emerging technologies like chatbots and virtual assistants may improve customer interactions and self-service capabilities.

Overall, the ongoing role of human interactions in banking, the positive perception of technology for banking transactions, the challenges of managing technology's impact on CRM, the need for customer education, and the importance of addressing security concerns. Introducing technology in CRM implementation has been widely regarded as successful for both customers and banks. Customers have benefited from increased convenience, personalisation, and efficiency in accessing banking services. Banks, in turn, have experienced improved operational efficiency, cost savings, and enhanced competitiveness. The future holds promising potential for further advancements in AI, machine learning, and emerging technologies.

5.2.4 THE SIMILARITIES BETWEEN THE CUSTOMERS, THE BANK AND THE INDEPENDENT OBSERVERS: D (A+B+C)

Discussions

Independent observers, such as industry analysts, generally agree that CRM technology has benefited both retail bank customers and banks with different degrees of risk.

The research adopts a multi-perspective approach, considering viewpoints from customers, retail banks, and independent observers. This perspective strengthens the research, providing a more comprehensive understanding of the phenomenon under study.

From the customer's perspective, the adoption of CRM technology has transformed how they interact and transact with banks.

The availability of self-service options, such as online banking and mobile apps, makes banking more accessible. These services are available 24/7, allowing customers to manage their accounts, conduct transactions, and access a range of services without physically visiting a branch, making it more convenient (Diffenhard, 2022). Customers agree that CRM technology has created convenience for customers and enables banks to provide personalised services, such as tailored recommendations and targeted offers based on customer data (Shankar, 2021). It enhances the relevance of banking services and improves the overall customer experience as customers can access banking services from any location and at any time, making the banking process faster and more convenient.

These three perspectives—customers, banks, and independent observers—each offer critical insights into how CRM technologies shape customers' lifestyles and the different risks faced as the technology evolves. As agreed, many customers feel safe using CRM technology, and some express concerns about identity theft and fraudulent transactions (Barclays,2018). It highlights a key area where technology might introduce vulnerabilities in customers' way of life. Even though technology reduces human intervention, some customers still face difficulties and report poor customer service, indicating that banks need to improve their digital support systems, particularly for less tech-savvy users (Daly & Caporal, 2023).

CRM technology has led to substantial operational efficiency and cost savings for retail banks. CRM technologies have reduced the need for manual intervention, allowing banks to handle a larger volume of transactions and customer interactions with fewer resources. This increases profitability and reduces operational costs (Feven et al.,2021). It has provided the retail bank's systems with valuable customer data, allowing them to better understand customers' preferences and behaviours. This information supports targeted campaign efforts and product development strategies, which, in turn, improve customer retention and profit margins. With all these operational benefits for retail banks, critical data privacy and security challenges are faced.

Independent observers, as industry analysts and experts, have generally recognised the positive and negative impact of CRM technology on customers and banks in UK retail banks (Sanchez, 2023).

They acknowledge the improved convenience and accessibility for customers, as well as the operational efficiencies and competitive advantages gained by banks. However, observers also highlight potential concerns regarding data privacy and security, as the banks' heavy reliance on customer data raises ethical concerns about privacy, data protection, security, and bank transparency policies.

It was observed that customer acceptance and usage of CRM technology in the retail banking sector have steadily increased as customers embrace digital channels and self-service options. A significant portion of banking transactions and interactions occur through online and mobile platforms. The convenience, speed, and accessibility of CRM technology resonated with customers, leading to a shift in preferences towards digital banking services.

Regarding the overall customer experience, CRM technology has generally enhanced it compared to traditional customer service. Customers appreciate the convenience of accessing banking services anytime, anywhere, and the personalised offerings tailored to their needs. Prompt and efficient query resolution through chatbots and virtual assistants has reduced wait times and improved customer satisfaction. However, it is essential to note that specific customer segments, such as elderly or less tech-savvy individuals, may still prefer traditional customer service channels and require additional support and guidance while transitioning to CRM technology.

Experts have observed that CRM technology has significantly impacted retail banking customers and banks. Customers' acceptance and usage of technology have increased, improving customer experiences through convenience, personalisation, and efficiency. While the overall impact has been positive, risks of data privacy and security remain a big challenge to ensuring the long-term success of technology-based CRM.

As customer behaviour evolves, the whole aspect of life changes; therefore, so do customer preferences, habits, travel patterns, shopping, and banking preferences. Technology has brought about significant changes in CRM technology in retail banks, offering convenience, safety, and customisation for customers' needs but posing challenges such as fraud, security concerns, and customer service issues. Banks are actively leveraging technology to meet customer needs and expectations. They also face the responsibility of educating and protecting customers, especially vulnerable groups.

Sometimes, customers have faced poor treatment or fraudulent cases, leading to dissatisfaction and needing to speak to bank staff or file complaints. Technology has transformed the banking landscape in the UK, with online banking usage steadily increasing, mainly through mobile banking and digital wallet solutions. High street banks are closing branches and being replaced by technology, leading to changes in customer interactions and transactions. In many cases, banks offer assistance to customers in using technology and staying safe online, but there is an urgent need for improvement in terms of support for victims of fraud. Customers expect banks to provide reimbursement and support for fraud cases, and there is a pressing need for better protection measures to ensure their safety and trust. The COVID-19 pandemic has accelerated technology adoption in retail banks, with increased digital engagement, online payments, and remote working. Banks are deploying different technologies to enhance customer services, reduce manual processes, and improve transaction efficiency. Traditional banking faces challenges due to increasing competition and lowered barriers to bank services with the advancement of technology.

The impact of technology on CRM in UK retail banks is mainly positive, with customers adopting and using technology for banking transactions. However, safety, security, customer satisfaction, and bank support challenges must be addressed (Sanchez, 2023). With increased reliance on technology, the banking landscape has changed; fraud now has online scams and more sophisticated means of preying on vulnerable customers. Banks must continue leveraging technology to enhance customer experiences while addressing associated risks.

5.2.5 THE SIMILARITIES BETWEEN THE CUSTOMERS AND THE BANK: E (A+B)

Discussions

The impact of technology on CRM in UK retail banks has been significant, as evident from the empirical data gathered from customer questionnaires and information shared by the banks on their websites.

Customers' experiences with bank technologies were mostly positive, with high awareness (91%) about the available technologies. Most customers accessed banking services through the Internet (57.2%) and mobile (27%), indicating a shift towards digital channels. Access to these technologies was perceived as effortless by most customers (80.3%), and most customers (78.7%) did not require assistance conducting transactions through these technologies. Customers also felt safe using technology (83.2%), although a small percentage (6.9%) expressed concerns.

The survey data also revealed some challenges associated with CRM technology in retail banking in the UK. A significant percentage of customers (20.8%) reported experiencing fraud-related cases while using technology for banking transactions. Customers perceived risks associated with technology use, such as criminal stealing identity (48%) and fraudulent transactions (29.5%). In case of poor treatment, most customers preferred to speak to bank staff (77.5%), while a smaller percentage would walk away and open another bank account (14.5%) or file a complaint (5.8%).

From the bank's website data, it is evident that the banks have been proactive in leveraging technology to support their customers and enhance their banking experience. Banks have focused on mobile banking, global accessibility, and understanding customer expectations to develop and deliver technologies that meet changing customer needs (Barclays, 2018). Notably, technology has taken the lead in addressing concerns related to fraud and security. Banks have invested in technologies that monitor spending patterns, proactively verify online calls, and share data with other financial institutions and the police to prevent fraud, demonstrating their commitment to customer safety.

Recognising the vulnerability of specific customer segments, banks introduced features in their mobile banking apps to provide more control and protection for transactions. For example, Barclays has introduced an intelligent feature that allows customers to select specific types of retailers or shops they can buy from, intending to benefit people with an addiction, gamblers, and vulnerable customers.

However, there are ongoing challenges in managing the impact of technology on CRM in UK banks, such as the increasing prevalence of purchasing scams (70% increase in 2022) and the need to educate younger customers who may be more overconfident and careless in using technology for banking transactions (Sanchez, 2023).

The impact of technology on CRM in UK banks has been significant, with both positive and negative aspects. While technology has enabled greater convenience and accessibility for customers, it has also brought challenges such as fraud risks and security concerns. Banks have proactively leveraged technology to enhance customer experience and address these challenges. However, it is important to note that ongoing efforts are needed to ensure the responsible and secure use of technology in CRM (Feven et al.,2021). This underscores the importance of the topic and the need for continued vigilance in the financial services sector.

5.2.6 THE SIMILARITIES BETWEEN THE CUSTOMERS AND THE INDEPENDENT OBSERVERS: F (A+C)

Discussions

Based on the empirical data from customers and the observations of independent observers, the impact of technology on Customer Relationship Management (CRM) in UK banks can be summarized as follows:

Adoption of Technology: The UK banking landscape is witnessing a positive shift, with customers increasingly embracing bank technologies. Internet banking, mobile banking, and other digital methods are becoming the norm, reflecting a promising future for CRM in UK banks. Customers find these technologies easy to use, instilling a sense of confidence and optimism in the industry's technological evolution.

Safety and Security: Customers feel safe using technology for banking transactions, although a minor percentage express concerns about technology-related risks such as fraud, identity theft, and transaction mistakes (Daly & Caporal, 2023). Some customers have experienced fraud-related cases while using technology without having it reported at all.

Customer Satisfaction: Customers generally have a positive perception of using technology for banking transactions, with a high level of satisfaction reported regarding ease of use, convenience, and speed (Zhu & Wang,2022). However, there are some instances where customers have faced poor treatment or fraudulent cases, leading to dissatisfaction and needing to speak to bank staff or file complaints.

Changes in Banking Landscape: Technology has transformed the banking landscape in the UK, with online banking usage steadily increasing over the years, mainly through mobile banking and digital wallet solutions. High street banks are closing branches and being replaced by technology, leading to changes in customer interactions and transactions. Support from Banks: Some banks offer assistance to customers in using technology and staying safe online, but there is room for improvement in terms of support for victims of fraud. Customers expect banks to provide reimbursement and support for fraud cases, and there is a need for better protection measures.

Acceleration of Technology: The COVID-19 pandemic has accelerated technology adoption in retail banks. This is evident in the increased digital engagement, such as more customers using online banking services, making online payments, and banks adopting remote working to ensure business continuity.

Banks are deploying different technologies such as AI-powered chatbots for customer service, blockchain for secure and transparent transactions, and mobile apps for convenient banking, to enhance customer services, reduce manual processes, and improve transaction efficiency.

Competitive Challenges: Traditional banking is facing increasing competition and lowered barriers to bank services due to technological advancements. However, banks are not just passive observers in this digital revolution. They are actively using technology to enhance the quality and availability of their services, reassuring customers about the industry's direction.

The impact of technology on CRM in UK banks is mainly positive, with customers adopting and using technology for banking transactions. However, some safety, security, customer satisfaction, and bank support challenges need to be addressed (Sanchez, 2023). With increased reliance on technology, the banking landscape has changed; fraud now includes online scams, phishing attacks, and more sophisticated means of preying on the vulnerable. Banks need to continue leveraging technology to enhance customer experiences while addressing associated risks.

5.2.7 THE SIMILARITIES BETWEEN THE BANK AND THE INDEPENDENT OBSERVERS: G B+C

Discussions

Financial institutions often adopt CRM technology to streamline operations, provide personalised services, and enable convenient and efficient customer banking experiences. For example, Barclays (2018) highlights the importance of using technology to support customers and how it makes managing their finances more manageable. It could involve developing and implementing digital tools and platforms that offer speed, convenience, and ease of use for banking transactions, such as online banking portals or mobile banking apps.

On the other hand, independent observers and analysts have also gathered and analysed CRM technology in banks to provide business insights and recommendations. They may use CRM systems to track client interactions, manage relationships, and deliver personalised insights. This allows them better to understand customer behaviour, preferences, and trends and provide data-driven recommendations to businesses to improve their customer experience and meet their needs.

Academic sources, such as the report from Statista (2022), are instrumental in providing evidence of the widespread adoption of online banking in the UK. Their research shows that

three-quarters of adults use online banking for its speed, convenience, and ease of use. This data underscores the impact of technology in CRM for banks, as it empowers customers to manage their finances online, access information, and perform transactions at their convenience.

Technology has a significant and distinct impact on CRM for banks and independent observers. Banks leverage CRM technology to streamline operations and provide personalised services to customers. Meanwhile, independent observers gather data-driven insights. Sources such as Barclays (2018) and Statista (2022) provide compelling evidence of the adoption and impact of technology in CRM for banks and customers. This underscores the pivotal role of technology in shaping customer experiences and enhancing operational efficiency in the financial industry.

5.3 CONCLUSION

In the ever-evolving banking landscape, technology has emerged as a driving force, reshaping the future of retail banking. Advancements in technology have revolutionized customers' experiences, making their banking relationships more flexible, convenient, and personalized. The rapid pace of technological progress has enhanced the banking experience for customers and opened up new avenues for innovation and convenience. As we look to the future, it is evident that the landscape of retail banking will continue to evolve, shaping how customers interact and transact with financial institutions.

With each passing day, technology continues to push the boundaries of what is possible in the banking sector. The future holds even more tremendous promise as we eagerly anticipate the impact of emerging technologies, such as cloud computing, artificial intelligence (AI), social media and holograms, on how customers engage with their banks. These technologies are intricately intertwined and are expected to converge, resulting in a truly immersive and captivating banking experience for customers, leaving us all excited and intrigued about what's to come.

Cloud technology, for instance, offers myriad benefits for retail banking. Banks can store and process vast amounts of data securely, giving customers real-time access to their financial information from any device. This flexibility enhances convenience and enables banks to deliver personalized services tailored to individual customer needs.

Another ground-breaking technology that promises to transform the banking landscape is artificial intelligence (AI). AI-powered systems, such as chatbots and virtual assistants, have already begun to enhance customer interactions by providing instant support, personalized recommendations, and efficient problem-solving. As AI advances, banks can offer more intelligent and predictive services, streamlining processes and delivering tailored solutions to meet individual customer needs. This customer-centric approach reassures customers that their needs are valued and their experiences are being enhanced. AI also revolutionizes risk assessment and fraud detection, making banking operations more efficient and secure.

Social media has also become a significant player in the future of retail banking. Banks leverage social media platforms to engage with customers, build brand awareness, and offer personalized promotions. Integrating social media into banking services enables customers to access financial information, make transactions, make social inputs and receive customer support through their preferred social channels, enhancing convenience and promoting freedom of speech, unbiased opinion and accessibility.

Furthermore, holographic technology is emerging as a captivating medium for customer engagement. Imagine walking into a bank and being greeted by a lifelike holographic teller who guides customers through financial transactions. Such immersive experiences will make banking more engaging and help build stronger relationships between customers and their banks.

CHAPTER SIX: CONCLUSIONS, CONTRIBUTIONS AND RECOMMENDATIONS

6. INTRODUCTION

This concluding chapter aims to summarise the research findings and demonstrate how they answered the research question and met the research objectives. All research objectives outlined in Chapter One are revisited, methods used in achieving them are described, and the major findings are evaluated. The theoretical, methodological and practical contributions of the research are also demonstrated, empowering the reader with actionable insights. Furthermore, recommendations are offered to the UK retail banks for enhanced and inclusive CRM technology. Finally, possible research limitations are outlined, along with suggestions for future researchers

6.1 SUMMARRY AND MAIN CONCLUSION

This section of the chapter is divided into two parts. The first part briefly summarises the research process and findings, while the second part describes how each research objective was achieved.

6.1.1 SUMMARY OF THE RESEARCH

This study explored technology's impact on CRM in UK retail banks over the last 40 years and its implications for the future. It comprehensively examined the impact across customers, banks, and independent observers, thereby fostering a deeper comprehension of the implications. A thorough review of the relevant literature was conducted to bring clarity to the study, looking at it from different dimensions to portray a clearer picture.

In the UK, customers' lifestyles are changing daily as technology evolves, and banks have come under increased pressure to meet their customers' daily expectations. Hence, technology has become a key driver.

The researcher's ideas have 3 phases, first, the empirical research in 2021, based on a sample survey of retail bank customers in the UK. It provided valuable insights into the interface between technology and UK retail bank customers which led to the second phase. Phase two compared three perspectives: the views of the retail banks about customer responses, actual

customers' responses, and independent observers' views. The thesis concerns technological change perspectives represented in CRM over the past 40 years and the impact on customers.

The third phase with the outlook for the future of retail banks' relationships with customers, given possible technological changes. The third phase opens the research to considerations about the coevolution of CRM technologies and customer demand. The researchers investigated publicly available web-based data to assess the impact of technology on CRM in UK retail banks. It evaluated the critical success of CRM and the challenges from three perspectives: early empirical data from customers, the data available from the bank's perspective and the independent observers' accounts of the impact of technology on CRM in UK retail banks.

In order to achieve the research aim, four distinctive objectives were established. This first objective was developed to see different stages of technological advances related to customer relationship management in UK retail banks over the last 40 years. The second, third and fourth research objectives were designed to assess the impact of CRM technology in three perspectives: the customers, the bank and the independent observers. For instance, the second objective compared the three perspectives. While third objectives identify and evaluate the impact on customers and the bank and the fourth objectives examine and evaluate the success of CRM from 3 perspective. Finally, the last research objective identifies new technologies on the horizon and the future perspectives.

A Venn diagram framework was employed to develop a comprehensive model for assessing the impact of CRM technology in UK retail banking. The data from these three perspectives were then compared to identify commonalities and differences.

As we progress, the retail banking landscape will continue to evolve, reshaping how customers transact and interact with financial institutions.

6.2 ACHIEVING THE RESEARCH OBJECTIVES

This research has five objectives, and appropriate methodologies were adopted to achieve the different objectives. Below, evidence on how each research objective was achieved is presented

6.2.1 OBJECTIVE ONE

The first objective is "To analyse the evolution of technological advances related to customer relationship management in UK retail banks over the last 40 years". It was designed to analyse the evolution of technological advances related to customer relationship management in UK retail banks over the last 40 years.

Critical evaluation of literature on different CRM technologies and how the shift towards technology-driven banking operations has significantly advanced customer experience and overall banking processes in the last four decades. The shift from manual processes to sophisticated technological-driven systems has enabled banks to leverage customer data for personalised services, improved experiences, and streamlined operations. Notably, Internet and mobile banking have emerged as the most preferred methods for accessing banking services. Achieving objective one has answered research question 1: "How has CRM technology in retail banking evolved over the last four decades"?

The researcher further ascertains that contemporary bank customers use various technological avenues to transact, interact, and engage with their banks.

The impact of this shift can be categorised into positive and challenging dimensions. Positive facets encompass customer convenience, real-time access to banking services, and seamless online banking encounters and global transactions.

At the same time, challenging impacts include instances of customer fraud and concerns about security breaches during technological banking transactions.

Customers perceive risks associated with technology use, such as criminal identity theft and fraudulent transactions.

Some customers have faced poor treatment, leading to dissatisfaction and needing assistance from bank staff or considering alternative banking options. Drawing upon the data analysis and findings, the researcher asserts that technology is an evolving entity, and adapting in this new way has significantly influenced and evolved consumers' preferences, behaviours, and expectations.

6.2.2 OBJECTIVE TWO

The second objective of this research is "To compare the three perspectives: the customers, the bank, and the independent observers". This objective was designed to assess different perspectives and their views about CRM technology improvement in UK retail banks. To

achieve this research objective, first, the researcher created a Veen diagram, as discussed in Figure 3.1, that provides a visual representation of these perspectives.
It offers valuable insights on retail banks leveraging technology to enhance CRM and strengthen customer relationships. The researcher's technology adoption model employs a multidimensional approach to assess technology's influence. Surveys were used to collect data from bank customers, while web-based research gathered data from the banks and independent observers. The findings of the second research objective add several insights to the literature. To the best of the researcher's knowledge, no previous study has been done to collect data from customers, banks, and the views of independent observers to understand commonalities and intersections between the perspectives. The findings not only fill the knowledge vacuum by answering research question 2, "What has been the level of customer acceptance and technology usage"? It also provides a guide for retail banks to consider customers' interests and perceptions towards CRM technology, thereby informing them of their strategic decisions.

6.2.3 OBJECTIVE THREE

The third objective is "To identify and evaluate the impact on customers and the bank's reputation in the future". This objective was established to determine how CRM technology has impacted customers and banks. This objective establishes a robust empirical foundation and ensures the research is grounded in thoroughly understanding the subject matter. The thoroughness of the literature review, which is based on a wide range of sources, including academic papers, industry reports, and expert opinions, instils confidence in the research. Having a Venn diagram to visually represent the perspectives of customers, the bank, and independent observers illustrates the areas of overlapping similarity and difference among the three viewpoints, which highlights the commonalities and intersections between the perspectives. After an extensive review of the literature, the technology acceptance model is based on two key components: perceived usefulness (PU) and perceived ease of use (PEOU). The literature review findings highlighted positive relationships and challenges between the customers and the retail banks. However, there is no evidence of a study assessing the relationship between the PEOU and the challenges faced by customers. The findings from the empirical data highlight a positive relationship and a challenging one as well. Overall, this study successfully achieved the third objective as the finding not only provides answers to research question three, "How does it impact the overall customer experience compared to

traditional customer service?" but also fills the research gap. Furthermore, the finding also provides guidance to retail banks on ways to increase their customers' positive experience.

6.2.4 OBJECTIVE FOUR

The fourth research objective is "To identify and evaluate the success of CRM from 3 perspectives". This objective was established to evaluate the success of the CRM technology. To be precise, objective four was developed to assess customers' preferences towards CRM technology and the traditional way of interaction and transactions. From the literature, the most vulnerable to the challenges of CRM technology is associated with age. The older generations are not eager to explore using these technologies more, while the younger generations might go into transactions that will lead to fraud because they are not cautious. Not many studies suggest that demographic factors like gender, income level, and education have a direct contribution to success. The empirical data indicates that technology has significantly shaped how customers interact and transact with their banks, enlightening us about the sophisticated process that potentially affects customer interaction, transactions, bank engagement, communication, and commitments. The findings of this objective offer enlightening insight as this could be an area of great interest for future researchers. To measure success, customers and banks accept the impact of technologies based on their experiences and the perspectives of independent observers, which further validate this consensus. Customers can now successfully perform tasks such as fund transfers, bill payments, cheque withdrawals and payments, account inquiries, balance checks, Loan requests, chequebooks and ATM card requests, and set banking instructions (direct debits and payments schedules). Technologies such as online banking, mobile banking, card and contactless services have completely changed how customers interact and transact with their banks. The overall success of CRM will be evaluated based on factors like customer satisfaction, retention rates, and efficiency in handling customer queries or transactions. Successful CRM implementations likely lead to higher satisfaction and customer loyalty.

6.2.5 OBJECTIVE FIVE

The final research objective is "To identify new technologies on the horizon and the future perspectives". This objective focuses on discovering emerging technologies that could shape the future of CRM and customer interaction in retail banks in the UK. It aims to evaluate innovations that could be adopted to improve customer relationship management, customer

experiences and expectations. As the pace of technological progress has continued to evolve, the banking experience for customers and their expectations has continued to grow, opening up new avenues for innovations. No major literature exists on the impact of retail banks using artificial intelligence and machine learning. There is no doubt that retail banks will key in AI-driven and ML algorithms to keep transforming CRM by allowing the banks to predict customer behaviour, automate responses, and deliver personalized experiences. As we look to the future, social media will play a significant role, becoming a community where their opinion matters more than ever and potentially shaping the future of CRM.

Objective five identifies the vital technological trends shaping CRM's future and provides an answer to research question five, "What are the prospects for the future?" technologies like AI, big data, and cloud technology suggest a future where CRM systems will be more automated, personalized, and secure.

6.3 RESEARCH CONTRIBUTIONS

CRM technology in retail banking is familiar and has existed for over two decades. This study has contributed in three categories: knowledge contributions, methodological contributions, and contributions to practice. Below are the contributions as they relate to each category.

6.3.1 CONTRIBUTION TO KNOWLEDGE

The research offers a substantial original contribution to Customer Relationship Management (CRM), specifically within the UK retail banking sector. This contribution is achieved by developing a unique conceptual framework that visually represents and clarifies the relationships and interactions central to CRM technology's impact.

The conceptual framework introduced in this study is original and has not been applied in any prior research. This framework provides a novel, structured approach to understanding the complex relationships involved in CRM technology within UK retail banking. By creating this framework, the study offers a new lens through which CRM technology's impacts can be analysed and understood in a visually organised format.

This framework stands out because it incorporates three main entities as components: customers, banks, and independent observers. The Venn diagram structure of the model effectively highlights each entity's intersections and individual contributions, giving a comprehensive view of how CRM technology influences different stakeholders. By visually

representing these components and their relationships, the framework simplifies complex interactions, making CRM technology's impact more explicit and accessible for academics and practitioners.

From a theoretical perspective, the research advances CRM studies by developing a hybrid framework that synthesises and builds upon existing CRM frameworks. Traditionally, CRM frameworks may focus on either the customer perspective, the organisation (bank) perspective, or external evaluators individually. This study, however, combines all three perspectives, providing a balanced and comprehensive understanding of CRM technology's impact.

The hybrid nature of the model represents a significant advancement in CRM theory, as it addresses the interconnected roles that each party; customers, banks, and independent observers plays in the CRM ecosystem. This interconnected perspective acknowledges that CRM technology's effectiveness and impact are not isolated to a single group but are influenced by and beneficial to multiple stakeholders.

This contextual relevance is crucial as CRM technology's role and impact vary significantly between industries and geographic regions. By focusing on UK retail banking, the study provides insights directly applicable to practitioners and policymakers in this sector.

This contextual focus also addresses a gap in existing CRM literature, as much of the prior research on CRM technology has been general or targeted towards other industries. Therefore, the findings enhance the understanding of how CRM technology can be effectively implemented and optimised within UK retail banks, making it highly valuable for industry stakeholders and future researchers.

The study makes a significant original contribution to knowledge by presenting an innovative conceptual framework that encapsulates the multifaceted impact of CRM technology in UK retail banking. This framework advances CRM theory by integrating customer, bank, and independent observer perspectives in a way that has not been done previously, particularly in this sector.

6.3.2 CONTRIBUTION TO PRACTICE

This research provides valuable background knowledge for retail banks and their management, serving as helpful advice. The findings suggest that customers generally feel

safe and confident when using CRM technologies, although there are concerns, as some customers feel they are not entirely secure. Here is a detailed contribution to practice:

Guidance for retail banks and their management

The research provides valuable insights for retail bank management teams, equipping them with understanding customer perceptions and concerns related to CRM technologies. The findings in 5.2.1 reveal that while many customers feel secure using CRM technology, there are also notable apprehensions around privacy risks, fraud, and identity theft.

These insights are to allow banks refine their CRM strategies by prioritizing customer security and addressing specific areas of concern, leading to a more robust and reassuring customer experience with CRM technology.

Tailoring CRM technology to meet customer preferences

The research highlights the importance of understanding and accommodating diverse customer preferences and expectations. Different age groups, for instance, have distinct preferences for interacting with CRM technology. Younger customers might prefer more digital, automated interactions, while older customers may seek more traditional or secure options.

By recognizing these differences, banks can implement more flexible CRM systems that offer tailored options for various customer segments. This customization will improve customer satisfaction by aligning CRM services with the unique expectations of different demographic groups.

Providing alternative channels and support options

To address their customers' diverse needs, banks should offer alternative channels for CRM services, especially for those who prefer not to engage with digital technology. This might include dedicated customer service lines, in-branch support, or secure communication methods that reassure customers concerned about privacy or fraud risks.

These alternative channels provide customers with choices, making it easier for them to interact with their bank in a way that aligns with their comfort level and technological capability. This flexibility contributes to a better overall customer experience and can increase customer loyalty.

Educating and empowering customers

The study is a foundation for informing and empowering prospective and current customers about CRM technology. By providing relevant information on CRM's functionality and security features, banks can help customers decide whether to use the technology. Customers who understand the technology and feel assured of its security are more likely to use it confidently. Moreover, uncomfortable customers can communicate their concerns to the bank, which can provide alternative solutions, fostering a more inclusive approach.

Closing Knowledge Gaps and Practical Guidelines for Banks

This research addresses the current knowledge gaps on customer concerns and preferences with CRM technology. It provides banks with practical, evidence-based guidelines that support them in implementing CRM solutions that are both effective and sensitive to customer needs.

The study also offers insights into improving CRM technology usage by addressing specific areas like user education, security, and alternative support channels. This practical contribution is essential for banks seeking to facilitate smoother business transactions and improve customer satisfaction in a digital banking environment.

The study's contributions to practice serve as a roadmap for UK retail banks to enhance their CRM strategies. By understanding and responding to customer concerns, tracking engagement, providing tailored solutions, and building reliable technology, banks can foster a customer-centred approach to CRM. This approach enhances customer satisfaction and loyalty and builds trust in CRM technologies.

6.3.3 CONTRIBUTION TO ACADEMIA

This study significantly expands the academic literature on the role and impact of CRM technology in the UK banking sector. By examining CRM technology within UK retail banks, the study provides new insights and empirical data on how banks utilise these technologies for customer interactions and transactions.

The findings offer a comprehensive view of the various CRM technologies deployed in UK banks, adding depth to existing knowledge on CRM implementation. This additional layer of understanding is valuable to researchers interested in technology's role in improving customer relationship management, especially within the highly regulated and competitive banking industry.

This detailed analysis goes beyond general discussions of CRM by identifying the specific tools and methods banks use to engage customers.

By analysing these technologies, the study sheds light on their direct impact on customer experience, satisfaction, and security perceptions. It offers rich academic material that can be referenced in future studies on CRM technology in banking. This granular approach contributes a more nuanced understanding of how different technologies affect CRM effectiveness.

The research contributes to academic methodology by using a data collection approach that includes three perspectives: customers using CRM technology, banks implementing the technology, and independent observers offering unbiased insights. This approach, as detailed in Chapter 3.9, allows for a comprehensive understanding of CRM technology from multiple viewpoints, enhancing the reliability and depth of the findings.

Many previous studies relied on single-method or multi-method approaches, which could limit the richness and objectivity of the data. This study addresses this limitation and sets a methodological precedent for future research. It demonstrates the effectiveness of capturing varied perspectives to achieve a more balanced and thorough analysis of CRM technology's impact.

As technology in the CRM field continues to evolve rapidly, this study serves as a solid foundation for future academic research in this area. It highlights the evolving nature of CRM technologies and underscores the need for continuous investigation into how these changes affect customer relationships, security, and satisfaction.

Future researchers and students can build upon this study to explore new technological advancements in CRM, such as artificial intelligence, machine learning, and data privacy measures. Academics can use this study's findings to compare CRM technology's impact in UK retail banking with that in other countries or industries, contributing to cross-sectoral and international research.

In summary, this research makes significant contributions to academia by expanding the literature on CRM technology in UK retail banking, introducing a unique data collection approach, and providing a foundation for future studies on evolving CRM technologies. Moreover, it is a guiding resource for students and researchers who aim to explore the complex relationships between technology, customer experience, and CRM strategies in banking and other sectors. These academic contributions collectively strengthen the understanding of CRM technology's impact and encourage further research on this vital subject.

6.4 RECOMMENDATIONS

Based on this study's discussion and conclusions, the researcher confidently makes recommendations to financial institutions in the UK and academia while adding to knowledge, following the strategic framework below.

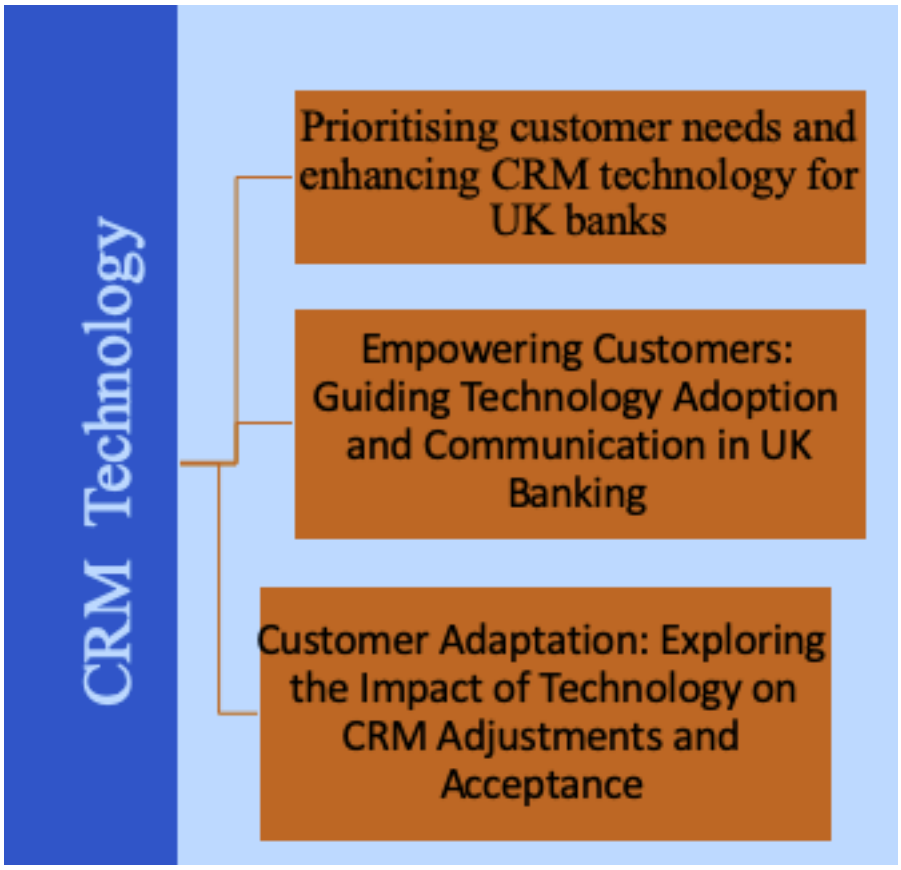


Figure 6.1 Researcher strategic framework By researcher

6.4.1 RECOMMENDATIONS TO THE BANKS.

Prioritising customer needs and enhancing CRM technology for UK banks.

For retail banks in the UK, the recommendation and further improvement regarding CRM technology is to focus more on customers' needs. By adopting new technology to facilitate everyday interactions and transactions, the primary decision of banks should be focused on what the customers need rather than entirely a strategy to reduce operational costs the banks. This shift towards a more customer-centric approach not only enhances the banking experience but also fosters a sense of optimism about the future of retail banking. Hence, there should be different technologies in different cities. Some areas may have a concentration of more enlightened customers who can subscribe to the different technologies,

while other areas may have more aged and vulnerable customers. Therefore, it is recommended that with the implementation of new technology, the bank should first get feedback from the different communities and see what their preferences are. It will enable the bank to create a synthesised model, combining traditional and enhanced technologies to produce an improved version that better suits the customer's needs. The UK is considered a developed economy, and technology has immense possibilities in supporting the banking industries and their automotive process. In order to ensure an effective CRM strategy, banks must use technology and collect data on customers who may need help using these technologies. More importantly, they must identify customers not interested in using them. This will enable the bank to offer alternative channels that better suit their preferences.

Continued investment in technology: Banks should persist in their commitment to integrating cutting-edge technology into their CRM strategies. By doing so, they can effectively address customer expectations, enhance experiences, and streamline operations.

Enhanced customer education: As technology evolves, it is essential to invest in customer education to mitigate apprehensions and enhance banking customers' security awareness. It can be achieved through informative campaigns, user-friendly guides, and interactive platforms.

Proactive fraud prevention measures: Given the challenges associated with customer fraud, banks should prioritise the implementation of robust security protocols. Real-time monitoring, AI-driven anomaly detection, and enhanced authentication measures can significantly reduce instances of fraudulent activities.

Personalisation and customisation: Leveraging technology to offer personalised services and customised experiences should remain a focal point. Banks can tailor their offerings by analysing customer data to align with individual preferences and requirements.

Staff training and support: Bank staff must be well-versed in the technologies they employ. Comprehensive training programs should be instituted to ensure that staff can proficiently assist customers in navigating technological interfaces. This emphasis on staff training not only reassures the audience about the competence of the bank's employees but also instils a sense of confidence in the bank's ability to provide quality service.

Continuous research and adaptation: The rapidly changing technological landscape necessitates ongoing research to stay attuned to emerging trends. Banks should proactively adapt their strategies to incorporate technological advancements that align with customer demands. This continuous research and adaptation is crucial to ensure that banks are always

at the forefront of technological innovation, thereby meeting and exceeding customer expectations.

Ethical considerations: Technology deployment should be underpinned by a solid commitment to ethical considerations and data privacy. This commitment to ethical considerations not only ensures data privacy but also fosters a sense of security and trust in the bank. Transparency in data usage and protection is paramount to maintaining customer trust.

The recommendations provide a valuable foundation for banks to navigate the dynamic landscape of technology-driven customer relationship management.

Empowering customers: Guiding Technology Adoption and Communication in UK Banking

The researcher recommends that the Bank of England, which is the apex bank, look at the impact of technology on customers and their acceptance and perceptions. Therefore, the regulators should provide specific guidelines for introducing technologies and planned timelines of adoptions so that the customers will be carried along without feeling forced to use these technologies. One of the primary responsibilities of the bank to the customers is communication. Management needs to communicate appropriately with their customers about new ways of doing things and get feedback on their perceptions and acceptance. It is recommended that customers communicate on many occasions and in different means in order to clear their doubts and keep them updated on the improvements.

The banks closing their branches should be able to devise and provide the right mix of services for all customers in the communities, enabling a smooth transition to the new ways of transactions. Establish a consistent mileage for customers to travel to access a branch or ATM in the event of branch and ATM closures in certain areas.

6.4.2 RECOMMENDATIONS FOR THE KNOWLEDGE

From the discussions and conclusions of this research, the researcher confidently makes recommendations to UK retail banking and academia. The proposed framework is presented not as an exhaustive exploration of technology's impact on CRM but as a foundational model. Recognizing that technology and human needs are continually evolving, the framework aims to provide a flexible yet effective starting point for understanding and addressing these shifts. Importantly, this framework has been designed to remain simple, accessible, and straightforward, allowing users across various levels of expertise to appreciate and apply its

insights without difficulty. Its uncomplicated structure ensures that it is both practical for immediate application and adaptable to future advancements in CRM technology, offering valuable guidance on the impact of technological innovation on customer relationship management.

6.4.3 RECOMMENDATIONS FOR THE ACADEMIA /FUTURE STUDIES

Exploring the Impact of Technology on CRM Adjustments and Acceptance: Technology has immensely changed the traditional way of banking customers' preferences and behaviours, giving rise to global competition and modern technologies demand in the banking industry. Banks in the UK have strived harder to deploy these latest CRM technologies to improve customer interactions and transactions, which certainly will contribute to customer loyalty. However, there is a for more in-depth knowledge and continuous research as it relates to the impact of technology on CRM in the UK.

Thus, it is recommended that similar research be carried out on the impact of technology with more focus on the various adjustments the customers have made to accommodate the new technologies. It will be interesting to see research on the changes made by the customers to accommodate these new technologies in CRM and the acceptance rate.

The findings from this research agree that technology to CRM in the bank is a great innovation. Practical innovations must be accountable and reliable to thrive in any environment. Ensuring sustainability is vital, and it encourages continuous improvement. Any ground-breaking invention that is not sustained is not successful at all.

This study should be a foundation for other students and researchers to conduct further investigations because technology will evolve. Thus, the researcher recommends that academia develop a school curriculum to sustain continuous innovation.

Furthermore, I recommend a study that compares the technological and traditional eras based on safety and general customer perceptions.

In addition, future research is recommended to verify the service quality dimension using CRM technology in UK banks. Comparative cross-country and cross-cultural studies can be further conducted in this same research.

6.5 LIMITATIONS

It is vital to recognise the limitations of this research while considering the practical implications of the findings. The study is on the impact of technology on CRM in UK retail

banks, and it was not without limitations. Research is never perfect as far as possible, I have responded to the examiners' useful and valuable comments in the time allowed. Making the amendments has been a journey, and the experience has been tremendously exciting and enlightening.

Therefore, the limitations of this study offer opportunities for future studies.

The following factors have impacted the research.

The world was facing a pandemic caused by COVID-19, and there were government directives on social distancing, different lockdowns, and restricted movements. This made the planned primary data collection impossible; as such, online data collection became this study's main source of data collection.

After considering time, access, and financial constraints on the researchers, a decision was made to collect data from the bank via the Internet. The data method may have impacted the reliability of the findings.

6.6 SUMMARY

The future is exciting, but the possibilities seem endless as technology continues to evolve and transform retail banking. Customers will be empowered with greater control over their financial journeys, enjoying convenience, speed, and tailored services at their fingertips.

Furthermore, the presence of retail banks on social media platforms has added another layer of interest and excitement. It allows banks to create brand awareness and drive traffic to their websites. Social media also facilitates the creation of online communities where customers can share their experiences and compare services to identify best practices. It has closed the communication gap between banks and their customers, creating an environment where customers can resolve issues and receive instant responses. It can be likened to a virtual law court where people engage in jury service without being summoned.

Cloud-based banking refers to deploying and managing banking infrastructure to take care of crucial banking functions and financial services via the cloud without a physical server. Similarly, retail banks are adopting cloud technology to transform their digital landscape, helping them achieve their business goals, ensure compliance, data storage, and data security, and deliver a seamless experience. It has enabled them to store customer data securely and

retrieve it when needed, making online banking more flexible, convenient and conducive to innovation. It enhances agility, efficiency, and productivity within the banking sector. CRM technology in UK retail banks is observed to be continuously advancing. Thus, as societal trends progress, CRM technology also evolves sophisticatedly. The researcher concludes that this study provides an evidence-based understanding of the sophistication and challenges associated with the impact of CRM technology in UK retail banks. Consequently, Consequently, a Venn diagram framework was employed to develop a successful model for assessing the impact of CRM technology.

This thesis is on the impact of technology on CRM in UK retail banks. The conceptual framework modelled the research to explore data from retail customers, the bank and independent observers. After careful revision of the literature and survey to analyse the evolution of technological advances, identify and evaluate the impact of technology-based CRM on customers of retail banks from 3 perspectives (customers, the banks and the independent observers). This research recommended that banks prioritise customer needs and enhance the CRM technology in UK banks, empowering customers by guiding technology adoption and communication in UK banking to practice and academia. It equally recommended to academia and future studies on customer adoption, exploring the impact of technology on CRM adjustment and acceptance.

As we embrace the future, it is clear that technology is the future and will play a pivotal role in shaping the retail banking industry. It will give customers more flexibility, convenience, and personalised services, ultimately redefining how we transact and interact with banks. The journey ahead is exciting, and the possibilities seem endless as technology continues to evolve and transform the future of retail banking. Customers will be empowered with greater control over their financial journeys, enjoying convenience, speed, and tailored services at their fingertips.

Ultimately, every customer deserves a service that is reliable at all times. The bank should improve the technology to capture the customers who may need help to keep up with the trend, and the same goes for customers who still prefer face-to-face banking; that way, these customers will be adequately attended to and their needs cared for. The researcher concludes that this study provides an evidence-based understanding of the sophistication and challenges associated with the impact of CRM technology in UK retail banks. Consequently, a Venn

diagram framework was employed to develop a successful model for assessing the impact of CRM technology.

MY STORY

The author would like to conclude with some personal remarks that give a flavour of what doing the research means to her. Furthermore, much of the discussion has involved considerations of innovation and the exponential growth of digital technologies. What is the impact on people as individuals? How does the researcher feel about the research?

How has the research impacted the everyday work of the researcher, a working mother with a deep desire to learn and to continue to do so after this phase of her life?

Technology has undoubtedly transformed many aspects of our lives, including how we interact and socialise in our personal lives. As a support worker for adults with learning disabilities, I have witnessed this transformation first-hand. I see how technology influences both communication and care. The individuals I support are often capable of basic communication and mobility, which might give the impression that they are fully independent. However, without the right support, they may struggle with tasks that ensure their safety and wellbeing in the community. Here, technology plays a crucial role in providing the necessary support and ensuring their safety.

Technology has also revolutionised how I support my clients, who are referred to as People We Support (PWS). This technological evolution extends far beyond the banking industry, touching every sphere of our lives. Recently, I had a conversation with one of my clients, a 63-year-old man, about his reluctance to use a mobile phone. I was concerned because, without a mobile phone, I could not communicate with him or check on his wellbeing when he was out in the community socialising. He explained that he used to have a cell phone years ago before touchscreens became standard. He said, "The touchscreen is too much to handle; I can't deal with that." He seems overwhelmed by modern technology and remains more comfortable with older keypad phones, even as the world has moved on to more advanced devices.

In my day-to-day work, technology is an integral tool. For instance, when administering medication, I have to log each dose electronically so my manager can monitor its administration in real-time. Medication stock is tracked automatically, simplifying the process of reordering and inventory management. Every activity or event I support the PWS must be recorded using an app provided by the company. This ensures accurate record-keeping and allows us to provide accountability to government authorities, demonstrating that the PWS are receiving appropriate care. The role of technology in maintaining high standards of care through accurate record-keeping and accountability cannot be overstated. In conclusion, technology continues to evolve, reshaping not only how we interact and socialise but also how we provide essential support in our professional lives.

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APPENDIXES:1

Appendix 1. Questionnaire

This research seeks to determine the impact of technology to Customer Relationship Management (CRM) in the UK banks. Respondents are to take note that participation is voluntary and they may withdraw anytime without any penalty. The information given out in this survey shall be treated with high confidentiality and shall solely be for research purpose only. The research is based on the topic "Developing a Framework to Determine the Impact of Technology on Customer Relationship Management (CRM) in UK Banks."
Section A (Demographic): Please tick '√'one option

What is your gender?
a. Male
b. Female
c. Prefer not to say

What is your age?
18 to 25
26 to 40
41 to 50
51 or older

What is your occupation?

Student

Employed

Self employed

Others

Do you have a bank relationship in any of the UK banks?

Yes

No

How long have you had the bank relationship?

1 to 5 years

6 to 10 years

11 to 15 years

16 or longer

Section B (Role of Technology and CRM in Banks): Please tick '√'one option

Are you aware of the different technologies in your bank?

Yes

No

Not interested

Do you use these technologies in getting your bank services?

Yes

No

Not interested

Where do you usually get your bank services?

Branch

Over the phone

Internet

Others

How easy do you access these technologies in your bank?

Very easy

Easy

Not easy

Complicated

Do you need assistance in getting your transactions with these technologies?

Yes

No

Not interested

Do you feel it's safe when using these technologies?

Very safe

Safe

Not safe

Worried

Have you had any fraud related case(s) using these technologies?

Yes

No

Not aware

Which threat for you is the highest perceived risk when you use these CRM technologies?

Branch closure

Fraudulent transactions

Mistake in transactions

Criminal stealing of your identity

How can you classify your customer relationship with your bank?

Excellent

Very good

Good

Poor

What new technology in CRM excites you the most?

Internet banking

Mobile banking

ATM

POS

Others …….

Have you ever suggested any type of relationship improvements to your bank?

Yes

No

Not interested

How were your suggestions treated?

Appreciated and implemented

Accepted

Put under review

Ignored

If you are treated poorly in your bank, what will you do?

File a formal complaint

Speak to bank staff

Walk away and open a new bank relationship with another bank

Others ……

Section C: (Role of Technology and CRM in Banks): Please tick '√'one option

5 - Strongly Agree, 4 - Agree, 3 - Slightly Agree, 2 - Disagree, 1 - Strongly Disagree

S/N	Questions	5	4	3	2	1
19.	Do you feel confident using these technologies?					
20.	Do you feel information presented during transactions is secured?					

21. Do you feel your privacy is protected on the bank data technology?
22. Do you trust that these online transactions are real time?
23. Do you agree using these channels is convenient for you?
24. Will you continue using these services in the future?
25. Do you agree that your family members and friends are getting on well with the bank technologies?
26. Do you agree that all bank services can be done through these new technologies?
27. Do you believe that every information you need is given correctly and accurately by the bank?
28. Has there been mistakes in the past while using these bank technologies?
29. Was the mistake handled professionally?
30. Were you pleased with the bank services?