Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Student ID: 2239556

Name: Neeraj Bhoiraj

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Supervisor: Jia Miao

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Abstract

The purpose of this study is to determine how the implementation of mobile banking services influences customer satisfaction in the context of the banking sector in the UK. The research is aimed at analysing how mobile banking assists, improves, or hinders customers' experience by carrying out primary research. The research objectives revolve around the specifics of the role of mobile banking in customer satisfaction, as well as the general features that influence customers' level of satisfaction, and the overall prospects and issues of mobile banking services. The results were found helpful in identifying that mobile banking has a positive influence on the accessibility and feasibility of banking services that improve customer satisfaction. It reveals key aspects like simplicity, customized services, and resourceful customer service results in increased satisfaction levels among the users. However, some issues such as security issues and literacy factors always come up, meaning that, there is a continuous need for the enhancement of mobile banking solutions. The following are the recommendations to key stakeholders for improving mobile banking service: Security should be given high priority, improving the education of the customers on the use of mobile banking services, and embracing the new technologies. However, it also notes that the study has some shortcomings like a small sample size and self-reporting bias that may affect the results. Possible future research topics are longitudinal research focused on the further development of the described tendencies in mobile banking usage and cross-sectional research comparing the usage of mobile banking among typical and less common segments of the population.

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Chapter 1: Introduction

1.1 Chapter Introduction

The aim of this chapter is to familiarize the readers with the background of the research topic and discuss the aim and objectives of the research. Furthermore, research questions are also described in this section along with the rationale for choosing this specific research topic. Lastly, the scope of the research is defined.

1.2 Background

The significance of the rise of digital innovation is notable in regard to the significant progress that has occurred in the banking sector of the UK throughout recent years. The steady implementation of mobile banking applications, which is modifying the approach with which customers engage with their financial institutions, is one of the most prominent recent trends (Merhi, Hone and Tarhini, 2019). In the age of modern banking, mobile applications for banking have been progressively used more and more that offers customers a variety of financial services in an easily accessible way. A variety of variables like quickly growing utilization of smartphones, quick internet access, and changing consumer inclinations for digital solutions have fanned the development of mobile banking applications (Zhu and Wang, 2022). With the help of these applications, customers can do a variety of banking tasks, for example, taking a look at their account balance, transferring cash, paying bills, and request for loans whenever and from any location. This helped in making the process easy for clients and at the same time allowing banks to save cash and simplify the operations instead of the brick-and-mortar institutions (Zhu and Wang, 2022). Ease of use and accessibility are two significant variables that immensely affect how well mobile banking applications fulfill the necessities and expectations of its users. The usability and navigation of the software for all customers, including those with impairments, is alluded to as accessibility (Hamid *et al.* 2022). It incorporates components like font size choices for clarity, screen readers for individuals who are visually impaired or outwardly handicapped, and intuitive design for simple navigation. Usability, then again, considers components like layout, functionality, and client experience to decide how well customers can achieve their objectives within the application.

The importance of mobile banking apps' usability and accessibility in the UK banking sector, where there is intense rivalry for customers' business and loyalty, cannot be emphasised. Increased engagement, better retention rates, and more customer happiness may all result from a smooth and user-friendly app (Oh and Kim, 2022). On the other hand, customers may become frustrated with applications that are hard to use, prone to mistakes, or devoid of necessary functionality, which may prompt them to look for other banking options. Studies have proved a positive relationship between the level of consumer happiness and how seamless and accessible the digital banking platforms are through the use of mobile apps (Susanto *et al.* 2023). As per a study of McKinsey & Company (2020), banks having more advanced digital services tend to possess more contented customers compared to those having less established digital capabilities. Moreover, the COVID-19 pandemic has witnessed the process of digitalization of the banking sector in which consumers have migrated to online and mobile platforms to handle their financial operations remotely at home.

Even while mobile banking applications have many advantages, it may still be difficult to make sure that these platforms satisfy the various demands of users while adhering to legal requirements. In particular, accessibility is very important to take into account since banks have to follow certain rules to make sure that their applications are inclusive and useable by everyone, even those with impairments (Mayordomo-Martínez *et al.* 2019). The UK banking sector's ongoing use of mobile banking applications highlights the need for more research into how these apps affect client satisfaction. Financial institutions are facing mounting demands to develop mobile applications that satisfy fundamental functional requirements while also boasting easily navigable and intuitive user interfaces, given the growing client expectations for flawless digital interactions. Along with that, the UK banking sector has since become extremely competitive due to the emergence of fintech and challenger banks which have been providing innovative digital solutions (Yan *et al.* 2021). Competing with these new competitors that standardized the client experience has forced long-time banks to make considerable investments in their digital offerings as a way to keep themselves relevant and competitive.

1.3 Aim and Objectives

The main aim of this research is to find out the impact mobile banking apps on increased accessibility and usability of different banking services for the customers along with its positive influence on the satisfaction rate of the customers in the banking industry of the UK. For that, primary data will be collected to understand the first-hand experience of the customers.

Objectives:

The objectives for this research are as follows:

- To find out the impact of mobile banking on the accessibility and usability of different banking services for the customers in the banking industry of the UK.
- To find out the relation between mobile banking and the satisfaction rate of the customers in the banking industry of the UK.
- To find out the features of mobile banking that enhances satisfaction of the customers in the banking industry of the UK.
- To find out the opportunities and challenges of using mobile banking for the customers in the banking industry of the UK.

1.4 Research Question

- What is the impact of mobile banking on the accessibility and usability of different banking services for the customers in the banking industry of the UK?
- What is the relation between mobile banking and the satisfaction rate of the customers in the banking industry of the UK?

- What are the features of mobile banking that enhances satisfaction of the customers in the banking industry of the UK?
- What are the opportunities and challenges of using mobile banking for the customers in the banking industry of the UK?

1.5 Rationale

There are numerous strong arguments in favour of investigating how customer satisfaction in the UK banking sector is affected by the accessibility and usability of mobile banking apps. First off, in order for banks to stay competitive, they must comprehend how the accessibility and usability of their mobile banking applications affect consumer happiness, as these apps are increasingly the major means of communication between customers and banks. An intuitive and user-friendly app may make a big difference in a market where customer loyalty is crucial by drawing and keeping users in a crowded field of banking alternatives (McKinsey & Company, 2020). Another factor is the fact that the consumer demographics are changing, with young tech-savvy consumers who are inclined to adopt simple and easy-to-use digital solutions. In particular, millennials and generation Z are used to smooth navigation over a wide variety of applications on numerous digital platforms and, if their mobile app experiences fail to reach their expectations, they are more likely to switch banks (Windasari *et al.* 2022). Accordingly, the banks need to design their mobile app products to meet the technological expertise and the behaviour patterns of these tech-savvy customers. Moreover, the necessity of examining accessibility of mobile banking apps is supported by the necessity for financial inclusion. Ensuring that mobile applications accommodate users with impairments or low digital literacy is crucial for providing equal access to banking services in a society where digital access to financial services is increasingly the norm (Amnas, Selvam and Parayitam, 2024). Banks may contribute to wider initiatives for financial inclusion by using inclusive design techniques by identifying obstacles to accessibility and usability. The COVID-19 epidemic has also shown how important mobile banking apps are to consumers in times of need as a lifeline (Yan *et al.* 2021). When traditional bank offices had to close due to lockdowns and limitations, smartphone applications were essential for handling funds from a distance. Banks may learn how to better serve consumers in similar future circumstances by analysing how the layout and features of these applications affect user experiences during difficult times.

1.6 Research Scope

This study is limited to the banking industry in the United Kingdom, and the results are meant to offer particular perspectives that are pertinent to UK banks. The purpose of the study is to look at how customer satisfaction is affected by mobile banking app usability and accessibility in the particular setting of the UK banking sector. Because of the narrow focus and the unique characteristics of the UK market, regulations, and consumer preferences, the research conclusions cannot be generalised to the banking industries of other countries. The study findings were customised to address the possibilities, trends, and difficulties that are unique to UK banks in order to improve their mobile banking app experiences. An online survey was used to gather primary data for this research from a representative sample of UK bank customers. The survey's opinions

and views were examined to learn more about how consumers see the usability and accessibility of their banks' mobile applications and how these aspects affect their degree of satisfaction.

1.7 Chapter Summary

Overall, this chapter provided a comprehensive background of the research topic, along with discussing the aim and objectives of the research. Based on this the research questions were developed and a rational was provided. The research scope was also briefly mentioned.

Chapter 2: Literature Review

2.1 Chapter Introduction

Mobile banking development made a tremendous impact on the way customers engage with financial services, which in turn requires a thorough investigation of those impacts. This literature review will put forth critical facets of mobile banking, such as trends in adoption or usage, the quintessential role of usability/user experience, inclusivity and accessibility aspects. These themes have been identified to comprehend the part they play in the achievement of customer satisfaction within the banking industry in the UK. Through synthesizing different viewpoints from scholars and studying empirical data, the review can underline the multifaced reality of digital banking and possible development prospects for the financial sector.

2.2 Trends in Mobile Banking Adoption and Usage

Mobile banking adoption and use have already ascended to impressive levels thanks to new technology and unexpected shifts in consumer behaviour. A study exhibits that mobile banking is now becoming the favoured way of managing one's finances, especially in the UK where smartphone ownership and mobile data access power such changes (Lashitew, Van Tulder and Liasse, 2019). This is indeed in line with thinking many surveys have done which prove that a large number of banking people have used mobile platforms for regular transactions like checking balances and transferring funds and payments (Asongu and Odhiambo, 2019).

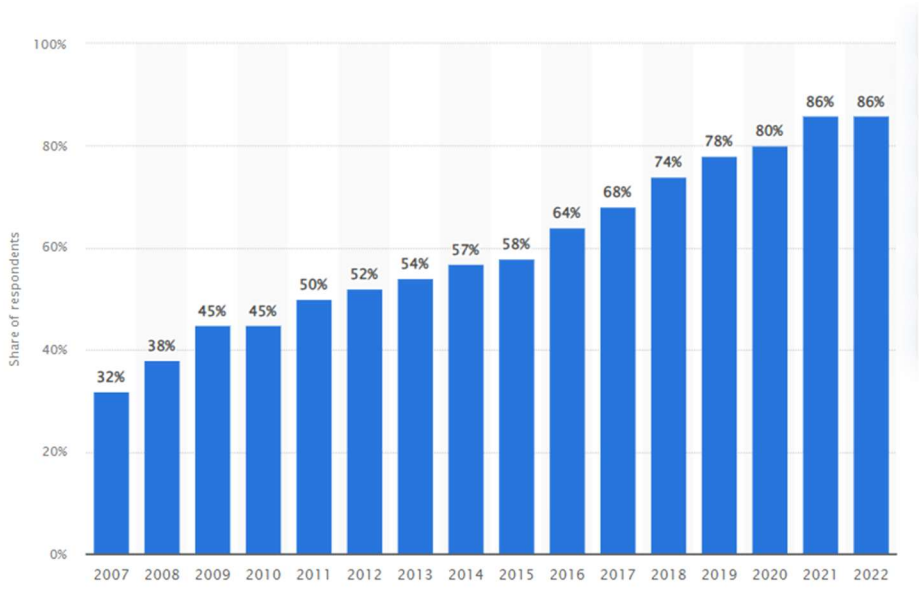

Figure: Mobile banking users in the UK

Source: Statista, 2022

The mobile banking users' demographics preference is more among the younger, techier group, even though there's an increase amongst older age groups who are getting more comfortable with various digital technologies (Ncube, 2020). Therefore, this is key because it is an influential factor that assists in the development and improvement of the mobile banking apps that are used by the broad spectrum of technological aptitude and preferences.

In line with this, Zhang, Lu and Kizildag (2018) indicate that the great convenience and the 24/7 availability of mobile banking are the most vastly valued attributes among the users thus offering direct growth of mobile banking uptakes. These advantages match perfectly with nowadays life-style, one full of challenges like the desire to get real-time and mobile services. In addition, the COVID-19 pandemic not only sped up the adoption rates but also made online banking more popular as banks increased their digitalization, restricting all face-to-face interaction during the pandemic (Naeem, Ozuem and Ward, 2022).

Though approval rates are high, mobile banking apps will only be popular among bank customers if they are consistently improved on constantly by banks. Among crowded financial institutions, user interface and usability have become a big differentiator and hence can affect the decision of a customer to use their service or search for alternatives. Li *et al.* (2021) show that, apart from attracting customers, banks with better digital services can compete in the market, by giving them better customer satisfaction and retention. The edge the community creates is what probably makes the market with customers who can change banks at will to stop doing business with them if their expectations are not met.

On the other hand, notwithstanding this fact, problems arose. What stands out the most are the critical factors that generally are considered to block mobile banking services- digital literacy, security issues and the resistance of clients to change. Banks need to work out the challenges using user education, implementing advanced security measures, and designing user-friendly interfaces that overcome the obstacle for most users to adopt mobile banking solutions (Clark, 2021). Ultimately, mobile banking trends demonstrate the success of these technologies to meet evolving customer habits and offer financial services providers opportunities for engagement. The graph shows the trend and orders of business banking via mobile devices, in decline that further pushes other developments in mobile banking technology and consumer responses to needs and preferences.

2.3 Usability and User Experience (UX) in Mobile Banking

Mobile banking application usability and user experience (UX) are key factors in not only customer satisfaction but also customer loyalty in mobile banking. According to author Wu *et al.* (2020), the opposition to the app's usability and ease of use have a great influence on users' perception and behaviour about the app. Such aspects are vital because they eliminate the learning curve for new users and help in the efficiency of financial procedures to be the same for all. As Sudirjo et al (2024) argue, simple consistency in design elements like button location, colour scheme and feedback mechanism between different banking apps make users experience comfort and satisfaction by aiding them in navigating the app with ease. Consistency of the interface ensures that inaccuracies are avoided and the speed of transaction completion is improved and this is one of the key features of the user experience (UX) which ensures user stickiness.

Proper mobile banking involves a lot more than just the graphical interface and technicalities. Senjam, Manna and Bascaran (2021) have outlined that accessibility features are key in determining if the apps are usable by the widest possible audience which may include persons with disabilities. Providing capabilities such as text-to-speech, high contrast modes, and a different font size eases the shopping experience in a bank, promoting inclusivity and meeting web accessibility standards.

Facilitation of feedback loops and customer support within the mobile banking application is also identified as one of the essential features for a great user experience by Stocchi *et al.* (2022). Ideal UX design makes users feel more at ease because they receive timely answers to their questions in the moment of uncertainty which in turn assembles the digital platform. This dialogue becomes even more important because it is a substitute for the regular face-to-face communication which is usually happening in traditional banking services. As shown by Tatikonda, Venigandla and Vemuri (2022), the incorporation of smart technologies like AI and machine learning into mobile banking applications is the key to creating a revolutionary user experience. AI can easily do this by analysing the users' behaviour and preferences and offering a more personalized banking interaction which is designed to fit exactly the user's needs and slides a notification about the recommended financial action into the user's common message environment. This is a definite chance to develop user engagement and satisfaction.

Furthermore, according to Indriasari, Gaol, and Matsuo (2019), the goal of mobile banking apps is given weight not only by the tools and functions they are equipped with but also by their overall

performance and responsiveness. The users of all apps want their launch speed cap, load time in record, and no lags while swiping between different pages. One of the major performance flaws that can entirely ruin the user experience and likely cause app dismissal is server connectivity issues which result in stagnation or slow response times.

To conclude, the usability and user experience of mobile banking apps comprise a clarion call for designers to meticulously pick and choose the set of design and functional features which need to be put in place to cater to the increasingly diversifying needs of users. Essentially, from the simple layout and navigational consistency to accessibility features such as AI-driven usability right to the advanced level of personalization, everything plays a huge role in creating a desirable digital banking experience for customers. Tackling these issues properly in addition to the quality of offering begets substantial user satisfaction, retention of clients, and then rapidly widespread acceptance among the public at large.

2.4 Accessibility and Inclusivity in Digital Banking

Accessibility and inclusiveness lie at the heart of the evolutive process of mobile banking customer experience. So, mobile banking services are made available to all, not just to the able-bodied. As shared by NEGASH (2022), those who are more aware of accessibility in their mobile banking services are not only fulfilling and carrying out their ethical and legal responsibilities but they are also tapping into a previously neglected market.

As pointed out by Rossi (2020), the set of accessibility standards including the Web Content Accessibility Guidelines (WCAG) used in mobile banking applications ensures that the services are operable, understandable, perceivable, and robust. These criteria allow designers to develop interfaces that are targeted to users with different disabilities, for example, visual impairment, hearing loss and physical disability such as speech problems, cognitive impairment, language difficulties, learning disabilities and neurological disorders. The wholesomeness of digital banking systems goes beyond the youthful and even elderly while ordinary people with a few bit of internet literacy. According to Alayed (2024), such interfaces are simple, intuitive and with clear instructions can be very helpful in the case of senior citizens and people with disabilities to reduce the digital divide and enhance financial inclusivity. This way not only meets the demands of target audience users but also enables the platform to comply with the basic rule of non-discrimination.

As the research of Kaur *et al.* (2021) shows, probably the toughest problems facing banks in terms of the spread of digital banking are the lack of general awareness about it and the shortage of

technical knowledge of banking institutions. Accessibility features have to be added to mobile apps at the initial stage of development and someone with good training and development in design and development must have to do that.

According to Gupta *et al.* (2020), innovative technology including voice recognition and adjustable display settings have a very crucial role in improving access to banking apps through mobile devices. This enables consumers with various limitations to transact with their banks whether visually, hearing or typing, accessing their services in the most convenient way possible which at the same time leads to better overall satisfaction and engagement with the use of technology.

Moreover, according to National and Ezepue (2018), the economic benefits incurred from investing in digital banking which is accessible to all are quite significant. Besides addressing the social responsibility needs of society but also acquiring a bigger market share and increased financial inflow through increased income and customer loyalty originate from this. Additionally, mobile banking according to Kim *et al.* (2018), platforms that are inclusive and enable access equal to other services incessantly stimulate a lot of advancement in innovation among their services. The continuous upgrading process of making banking apps more friendly often contributes to enhancements in the app's general design and performance and hence, provides more benefits to other users. In the same way, gestural controls and voice guidance to steer the users not only help individuals who have disabilities but also improve the user experience for the users who are in a situation where they want to have their banking application to assist them hands-free and visually not intrusive. Besides these two-sided positive effects, it is good evidence as well that having an inclusive design as the motor of technological development in banking should be considered a good practice for bringing a more user-oriented banking sector in general.

Finally, the standard of accessibility and inclusion in digital banking is more than a regulatory obligation, it can be regarded as a cornerstone for the establishment of equitable finance conditions. The fact of providing substantial accessibility elements will help banks to make their digital channels as appropriate for everyone which ultimately will contribute to the level of customer satisfaction and loyalty, and as a result enormous enlargement in the customer base. The ongoing technology development gives a chance to bring more improvements in this area. By that, there will be digital banking into fashion with it being available for every person who can access it.

2.5 Impact of Mobile Banking on Customer Loyalty and Satisfaction

As mobile banking technology looms and penetrates the minds of customers, the outstanding effects on customer loyalty and satisfaction are very well known today in the small world of fiscal services, indicating its place in daily consumer practices. van de Sand *et al.* (2020) bring to the forefront the fact that User Experience (UX) is a major player in the formation of consumer's perceptions and behaviours, providing that the ease of use of the product is adequately and intuitively designed, the satisfaction and loyalty of customers can be substantially increased. First, it has to be understood that apart from all the other useful features, the adaptability of mobile banking apps also helps in promoting customer retention. Features like voice commands and also the flexible display format make the banking apps quite handy for users with a disability and may thus promote their retention.

A critical statistic highlights this relationship: 65% of them are highly satisfied with lately the possibility of remoteness of the service from the site, and that corresponds to a higher level a 3 0 likelihood to recommend the service than others (Kamboj, Sharma and Sarmah, 2022). The credit comprehensively highlights the significance of mobile banking components like the ease of access in changing the customers' attitudes and behaviours. Nevertheless, as shown by Kelly and Palaniappan (2019), mobile apps need to be constantly improved and innovated to provide users with a full service and keep them engaged long-term. It is observed that with new features in mobile banking applications, it becomes important that the technology also matches customer expectations, especially in terms of security and personalized finance apps.

Seetha *et al.* (2022) come up with an in-depth examination of the interaction between technological innovations and the satisfaction of consumers. They assert that AI has added a new dimension to the customer interaction process by introducing personalized recommendation services and also simplifying some decision-making processes. As a result of the customization the level of user engagement and satisfaction is higher, which in turn gives rise to brand loyalty. Then again, challenges relating to digital literacy and acceptance of technology change as explained by Shaikh and Karjaluoto (2018), form the barriers to mobile banking adoption. These problems would encourage banks to spend money on user education sessions and to develop interfaces that are user-friendly, easy to navigate and, at the same time, provide high levels of customer satisfaction. Furthermore, Kiliç's research (2020) argues that investing in digital banking accessibility not only yields financial benefits through the fulfilment of the corporate social responsibility mandate but also increases

the market share. Such an inclusive approach to mobile banking design is significant in enhancing customer experience and commitment and thus in advancing the financial institutions' growth further and their success.

In conclusion, the development of mobile banking applications essentially has a good effect on the relationship between banks and their customers as these applications provide customers with convenience, accessibility, and personalization. This connection highlights the need for innovative attention and user-friendly designs so that these banks will be able to hold and/or gain customer loyalty in the industry which has competition.

2.6 Challenges and Opportunities in Mobile Banking Development

The advancement of mobile banking is amidst an array of challenges and opportunities, where the story of digital financial services is taking place. Security is one of the major problems that safety procedures prevent the widespread use of mobile banking technologies. Security issues like data breaches and fraud are the main problems that may discourage customers from preferring mobile banking options, highlights Hanif and Lallie (2021). These challenges compel us to adopt advanced security solutions to ensure the security of user data and trustworthy services.

However, the digital divide remains a major problem, as highlighted by Robinson (2020), who comprehensively points out that the disparities in digital literacy and access to technology may limit the scale and effectiveness of mobile finance services. The problem is more typical in areas which are low urban where the availability of required technology and the internet connection is very low. One of the biggest challenges that mobile banking is facing is the digital divide which must be bridged to ensure that mobile banking has a cross-sectional impact. On the positive side, the use of robust technologies like Artificial Intelligence (AI) and machine learning is a source of substantial benefits. Manser, Payne, Peltier and Barger (2021) talk about how AI can improve banking service, by customizing the customer experience and automating the processes, eventually leading to a faster and more enjoyable banking experience for individuals. AI-enabled data analytics can also allow banks to learn about their customer's behaviour and preferences, which are in turn facilitating the provision of more personalized services.

The rise of smartphone usage at a fast rate opens up another urgent chance for mobile banking app development. According to the statistics mentioned by Malaquias and Hwang (2019), the usage of smartphones is more than 75% in developed countries, which is undeniable evidence of the large potential market for mobile banking services. The wide reception of mobile devices brings about

increased accessibility to financial services, especially in areas where the basic banking setup is sparsely located. Secondly, the pandemic has also been the rapidity of shifting to digital banking solutions showed by Marcu (2021). During the pandemic, banking customers discovered that a strong online bank system that can be accessed remotely is a very important feature of a bank. This alteration is anticipated to last beyond a pandemic, explaining the significance of furthering investments in mobile banking capacities.

Yet, one other hurdle is meeting regulatory demands, because mobile banking has to meet numerous regulations and laws that also differ from country to country. Compliance can be costly and complicated when banks are present in several jurisdictions, as the letter from Mullan, Bradley, and Loane (2019) explains. However, compliance is still a key factor in the provision of a safe and dependable mobile financial service. Moreover, mobile banking's unique ability to address financial inclusion is also a possibility that this service presents. According to Fiocco (2019), mobile banking can reach people who are left behind and unbanked by the traditional banking method, which rarely provides such services. This engagement can lead to economic empowerment and growth in developed areas, locally and globally.

In a nutshell, mobile banking is described by the interaction of challenges and opportunities which is perceived as a moving process. Confronting issues including security, the digital divide, and regulatory compliance is paramount to taking advantage of the opportunities that technology brings, mobile devices growing popularity, and fintech rise. Along with the evolution of the finance sector banks must find the right strategies to harness the opportunities while at the same time reducing the risks that mobile banking carries to ensure long-term sustainability.

2.7 Theoretical Perspectives on Technology Acceptance and User Behaviour

Theoretical frameworks used to study technology adoption and user behaviour provide the background understanding for looking into the way users welcome and apply new technologies. Besides this, the Technology Acceptance Model (TAM) developed by Davis, can be considered one of the most notable theories in the area of technology acceptance. About this, TAM argues that mainly perceived usefulness and perceived ease of use are the factors that affect the decisions of people regarding technology adoption. Ibrahim et al. (2020), exhibit the application of this model in mobile banking: usability can be easily stylized leading to product adoption or turned upside down leading to product non-acceptance.

UTAUT is another significant theory by Venkatesh et al. (2003), which is a collaboration of three principal technology acceptance theories developing along with the emerging theories and findings. This proposes a scenario where all the aforementioned factors are still relevant for technology adoption but also interlinked, and additional ones are introduced, such as from the previous theories. Özköse, Aytekin, and Ayaz (2022) examine the role of social and organizational support of UTAUT, which can suggest the factors which determine one's mobile banking technology adoption. The two of them claim that input and basic structure play key roles in their process.

On the one hand, once again, this ends up to be the Theory of Diffusion of Innovations by Rogers (1962), so that a wide view of the way, the reasons and the speed with which innovations can be accepted by a society can be provided. Through that kind of cognition the interpretation of such things which presents innovational characteristics as observability is trialability, influencing complexity, and relative advantage focuses the target audience. García-Avilés (2020) pointed out by his research that the TRA theory also applies to the evolvement of mobile banking application and mentioned that what actually plays a role is the sense of convenience in citizens who use this service to transfer funds through NFC technology.

These theories are significant in identifying the kind of complex technology determinism involving both the technology features and usage behaviour, and thereby it is shaped by how well the new banking technologies are adopted in different demographics and cultural communities. By weaving into TAM, UTAUT, and the Innovation Diffusion Theory, researchers and those who are responsible for technology implementation will be able to design and cut the rate of rejection through user-friendly innovation and acceptance, hence satisfaction and prolonged usage.

2.8 Literature Gap

But even though there is a high level of research done in the process of technology acceptance and despite all the gained knowledge, there are many gaps still left, especially in the interpretation of the unique cultural effects on the application of technology in the mobile banking sector (Lashitew, Liasse and Van Tulder, 2019). Furthermore, the obscurity of TAM and UTAUT focuses on negative emotions, including anxiety or mistrust, which leads to the avoidance of technologies especially in the case of financial applications; the potential deterrent is significant (Naeem, Ozuem, and Ward, 2022). These inadequacies are a cause of increased knowledge about the challenges and factors that several users take into consideration while doing mobile banking. Thus, they are a way of finding out these barriers and facilitators effectively.

2.9 Theoretical Framework

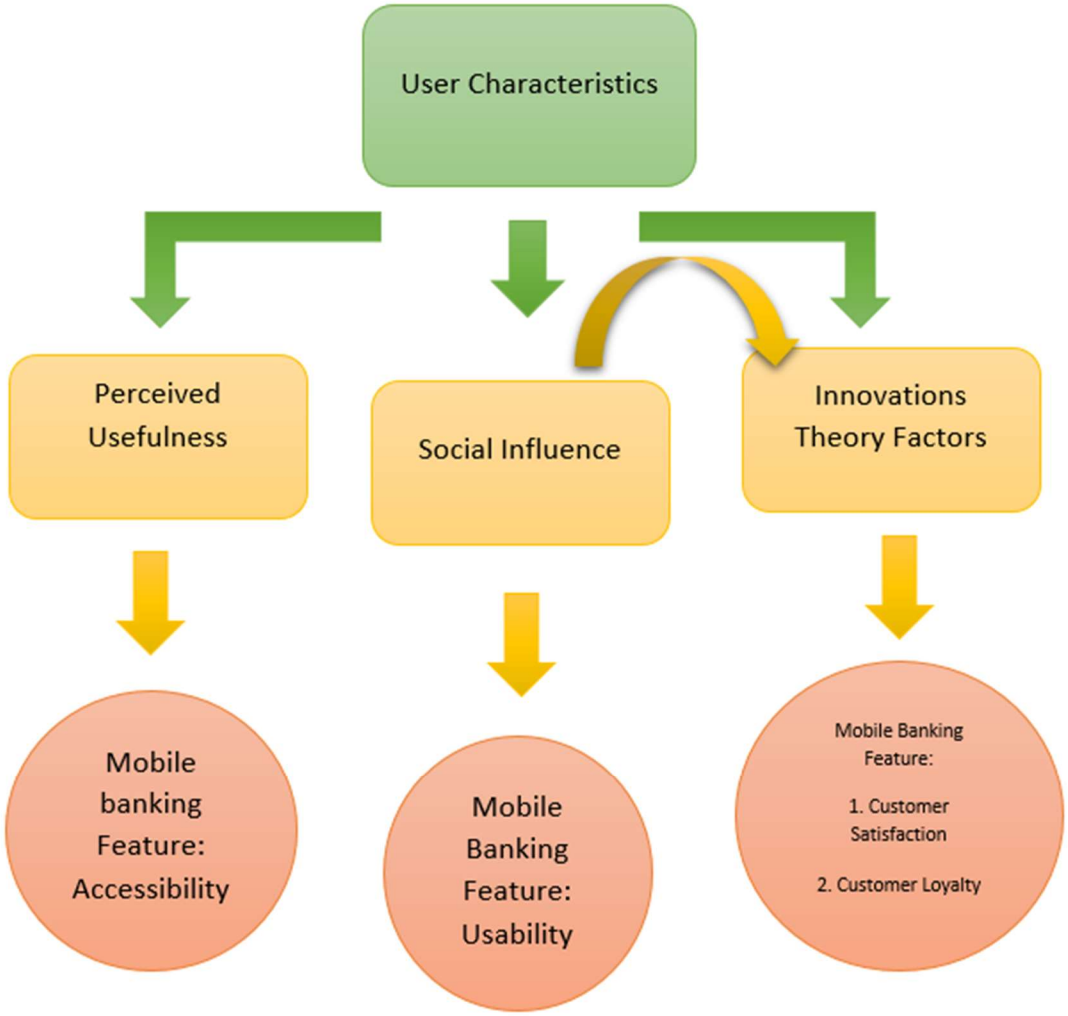

Figure: Conceptual Framework

Source: Self-Created

Mobile banking usability and accessibility framework integrate multiple theoretical models into one model to shed light on user behaviour and technology acceptance level. It is the basis of the Technology Acceptance Model (TAM) which asserts that perception of value and ease of use determines customer satisfaction. However, the Unified Theory of Acceptance and Use of Technology (UTAUT) is centred on variables including social influence, and facilitating conditions, that are affected by users' traits such as cultural differences and emotions. The Diffusion of Innovations Theory would ensure that the key features of mobile banking would be accessible and user-

friendly, thus growing the customer base and loyalty. This framework provides a broad-ranging structure to explore the effect of mobile commerce on end users' engagement and loyalty.

2.10 Summary

The imperative of mobile banking development as revealed by the literature review highlights the influence mobile banking technology has on user attitudes and satisfaction. Usability and accessibility issues are always the two main things delivering the increase of satisfied and loyal customers by models like TAM and UTAUT, which emphasize the effect of users' perceived usefulness, ease of use, social influence, and facilitating conditions. For example, challenges like security issues and the digital divide can limit their reach whereas they can exploit the technology of AI to individualize user interactions. In particular, the review stresses the importance of ongoing innovation and an inclusive approach in everything that is related to mobile banking and also assists in meeting different customer's needs as well as financial inclusion.

Chapter 3: Research Methodology

3.1 Introduction

This chapter explains the tools and methods which are applied in the study of the impact of mobile banking app accessibility and usability on UK banking sector customer satisfaction. The present study follows a quantitative approach, which invokes the survey methodology to gather data using 25 closed-ended items that lead to clear and measurable responses. Participants, 50 in number have been engaged through Google Forms a randomized sampling approach – a collection method applied to ensure the accuracy and reliability of the collected data. Through this methodological architecture and having control over data collection and analysis, the model would be much more accurate and stable aiming at the deep understanding of such variables as customer satisfaction in mobile banking.

3.2 Research Philosophy

The "research onion" is a methodological model that proposes a structured approach to conducting research, which in turn enables researchers to remove layers of methodology to look at the core elements of methodology systematically (Melnikovas, 2018). The humble bulb of the research onion, in turn, leads the researcher to a point where everything including philosophical commitments, data collection and analysis is thought through.

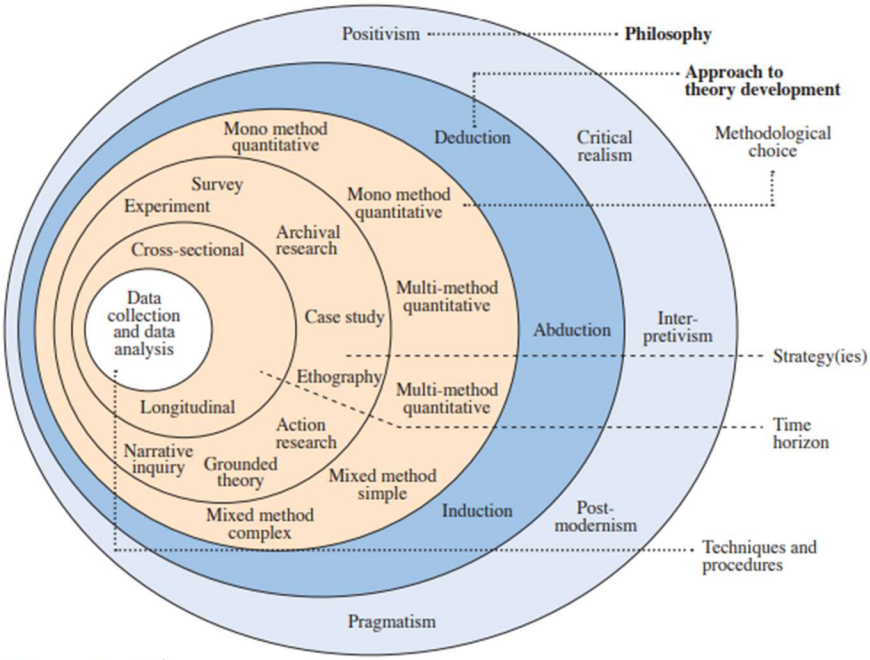

Figure 1. Research onion[1]

Figure: Research Onion

Source: Melnikovas, 2018

This study is founded on the positivism philosophy, which states that knowledge was created by factors related to natural phenomena and their interrelations, which could be verified by empirical sciences. In positivism, experimental research is conducted through the collected observational and measurement facts and its results are usually in the form of statistics which can be verified later. This theory emphasizes the employment of logical and rational tools as that it has rules and procedures that can be matched to the other experiments and reduce the subjectivity in the process (Alharahsheh and Pius, 2020).

In positivistic approach studies the focus is on the relationships of variables one to another. These relationships can be quantified based on the numerical data derived from the observed facts. In this investigation, an empirical approach is deployed to study the link between the usability and accessibility of mobile banking apps and customer satisfaction in the UK banking sector. The fact pointing at positivism supports the approach which is based on the factual evidence through the survey forms, which can be statistically tested to confirm all the hypotheses or the assertions made about the driver of customer satisfaction (Junjie and Yingxin, 2022).

First, the reasons for implementing positivism in this research are multiple. First, the fact that positivism is empiric, coincides well with what is desirable to find out the features to make connections between the use of mobile banking and satisfaction level at the customer's end. This leads to the research being detached and neutral, and the researcher's perspectives are only of de minimis value, as strictly only physical data is evaluated. As for positivism, it provides a disciplined methodology which can be duplicated over and over challenging the field with evidence to back their recommendations. Thus, thirdly, the wider population of UK private

customers is well justified by the generalization of the results conducted with the help of statistical tools, which is one of the most remarkable advantages of the positivist tendency.

3.3 Research Approach

The characteristic of a deductive research approach is the development of the hypothesis guided by the existing theory that is then tested by collecting the data. This type of approach is rational in the sense that the conclusions are deduced based on the given premises, or simply put, where one moves on from a general premise to a more detailed assertion (Pandey, 2019). It is often seen as appropriate in research when precision and specificity are required to demonstrate or confirm the accuracy of hypotheses by emulation in practical happenings. In this project, we are researching the role of mobile banking app usability and accessibility on customer satisfaction in the United Kingdom banking industry the deductive approach is employed aimed at testing theories and predictions on technology adoption and consumer experience. For instance, among such theoretical postulation, some hypotheses that usability and accessibility contribute to customer satisfaction will be verified by the data generated through the surveys. The reductive technique provides the researchers with an opportunity to focus on variables and satisfy the conditions that govern specified relationships (Pearse, 2019).

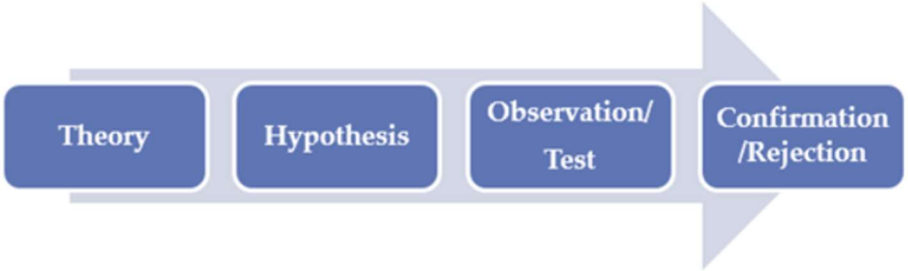

Figure: Deductive research outline

Source: BRM, 2023

Deductive reasoning is employed in the present research with a purpose of threefold. Initially, positivism, which is a core philosophy of the study that directs scientists to take part in hypothesis testing by basing their facts on empirical data, is what is portrayed all the time. To begin with, a strong approach, the deductive approach is beneficial to the researcher due to the ability to apply a theoretical framework to the study of mobile banking thereby providing an effective form of evaluating the theoretical assertions in explaining real-world experiences.

3.4 Research Design

An exploratory research design is used mainly to look into problems and issues in the research area where not many or any previous studies are available yet for reference. The goal is to have personal experience and understanding which could help do investigations later or could be a point of view for examination of phenomena. This is in many cases used to decide the best ways of doing research, choosing methods of data collection, and selecting subjects. It offers the expert the liberty and the advantage to be flexible and adaptable in their solution to the problem as they look into further aspects as they arise (Swedberg, 2020).

In this case research, exploratory design is adopted to experiment with various aspects of using mobile banking apps which relate to usability and accessibility levels affecting customers' satisfaction in the UK banking industry. Although a great deal of research has been done on mobile banking, the root of the interaction of these factors and the effect of that on the customers is yet to be uncovered properly. It enables a systemic analysis of the independent parameters and interactions among them without overly restricting the researcher to a fixed hypothesis (Szabelska et al. 2021).

Exploration design in this research project has numerous justifications, some of which are listed below. For instance, it covers the initial collection of qualitative data taking into account that a simple solution is not always possible with such a complex interplay between mobile banking features and user satisfaction. Considering an error-free and up-to-date website in an industry that is science-driven and customers' expectations are transforming every day, this strategy is very valuable (Jebb, Parrigon and Woo, 2017). First, exploratory research design has an advantage over the others because of the flexibility it gives the researcher to follow new patterns and leads that appear during the information gathering as it tries to provide the most comprehensive view of the subject matter.

3.5 Research Strategy

A quantitative research plan involves gathering and working with statistical and numerical data to attain precise measurements and patterns of the phenomena. It relies on the foundation of deceptive reasoning and is usually backed by quantitative techniques such as statistics, mathematics, or computation. Quantitative methods are characterized by a high degree of frequency as they generally involve experiments, surveys and questionnaires that have numbers as data elements and, therefore, can produce unambiguous and reliable results (Pandey & Pandey, 2021).

This study on the role of app accessibility and usability in impacting customer satisfaction among customers of UK banks uses a quantitative approach to collect data from a large sample of banking customers. By achieving this goal, an ability to define the customer's level of satisfaction is obtained and, in addition, the impact of particular features included in mobile banking apps, e.g., simplicity of use and versatility, on the level of satisfaction may be estimated. One of the research tools that the researcher will utilize includes surveys. Surveys are used to collect large volumes of data that are needed for purposes of using statistics and testing hypotheses (Snyder, 2019).

A Continuation of the research method is justified by several factors which include the following. To start with, the strategy enables the collecting of data and samples that can be generalized to a larger population and thereby the beginning of a trend across the banking sector of the UK is understood. Quantitative methods help to get the factual support for the hypotheses made from the research questions, letting your results be the proof of the thing seen and not a matter of judgment (Queirós et al. 2017). Thus, the tactic complements the deductive model of the study which determines the pathway for research by testing the linkage hypothesized to be there between the characteristics of the mobile banking app and customer satisfaction and providing comprehensive and useful results for the industry stakeholders.

3.6 Data Collection and Sampling

Data Collection:

For this research, the data collecting technique is invoked in the form of a survey, which was developed by me as a close-ended questionnaire containing 25 questions. This method is often used in quantitative research by gathering data in a highly structured form so it will be easy to quantify and analyze the results. Closed-ended questions have their advantages as they produce data that is consistent and hence are easy to comprehend and compare. This method is effective in data collection as it reduces the errors in the data and increases its reliability. Also, the data becomes useful for conducting statistical analysis based on the homogeneity of the data collection. Surveys are by and large, convenient for studies such as the one in question, as their primary aim is to gauge the diversity of consumer satisfaction as a whole using a widespread survey. Data retrieved from customers fill up the foundation on which the research hypotheses about the connection among the banking of mobile service quality, availability and customer satisfaction.

Sampling:

This study aims to draw data from random sampling, with 50 cases in total. Random sampling is so important to make sure that every potential survey participant has an opportunity to take part in the study and gets the same chance to be used it helps achieve representativeness and avoid sampling bias (Bhardwaj, 2019). This technique improves the ability of the findings to apply to the larger population of UK bank customers. Distribution of the survey is via Google Forms, a simplified and efficient online tool enabling easy and comprehensive data management, consequently deploying the survey. In this regard, Google Forms is an invaluable tool because it enables us to collect, arrange automatically, and even throw away a large amount of information in the blink of an eye, simplifying the analysis dramatically down to make it manageable. Google Forms here helps to achieve the purpose of approaching the diversified sample within the rather limited period of the study. In this way, people are provided with both the chance of averting an 'inconvenience effect' and the search for robust data all at once.

3.7 Data Analysis

For the analysis of the collected data in this research, Statistical Package for the Social Sciences (SPSS) will be used. SPSS is probably one of the best around the ability to handle dealing with complex data analysis and is very advantageous particularly when you have to manage big data sets and conduct a wide range of statistical tests (Ong and Puteh, 2017). This is the tool selected for its user-friendly interface, which is, basic namely descriptive statistics as well as duration regression as well as correlation tests, which are very vital in explaining the relationship between the different variables in quantitative research.

The data analysis phase starts with the data cleaning stage, where the data obtained from Google Forms through the questionnaire is shifted to SPSS initially. This type of measure eliminates the chance of the presence of errors such as repetition of answers or omissions of the inputted data entries which might fall under the category of inaccuracy. Consequently, the descriptive statistical analysis would be conducted next to plain an overall picture of the data involving the measures of central tendency (margin, median) as well as dispersion (standard deviation, range). These figures will provide the first indications of the presence and fashion of sentiments and preferences of the customer through using this mobile banking app.

Furthermore, the data that has been collected will then be subjected to inferential statistical methods. The primary analyses will contain correlation and regression pows. A correlation study will be used to measure the connection level and direction between user satisfaction and the usability/accessibility of mobile banking Apps. Subsequently, the regression analysis will also deepen into the relationship between them and to the largest degree how much of the variation and thus the percentage of people who would explore the city brand can be explained by these factors (George and Mallery, 2019). Furthermore, this step is central as it permits the researcher to test out the study's propositions, providing tangible evidence to back or rile the theoretical statements made regarding the performance of mobile features banking on customer satisfaction.

3.8 Ethical Consideration

Ethical considerations are the key factors in designing research that involves human participants, that is, following in line with the standards of integrity and observing the participation doctrine for individual rights and well-being. This research presents certain methods to handle these dilemmas.

Thereafter, upon completion of the workout, a debrief handout will be given to everyone. In this statement, you will find the aims and the procedures of the research, the nature of the data being collected and how the data will be used. Such gives the researcher a chance to explain fully the research context and thus the participants are aware of the purpose and scope of the research. This establishes the truthfulness and trust between the researcher and the participants.

Moreover, the survey will only be conducted after demanding assent from all participants by signing the consent form. It is the purpose of this form to give all participants detailed information about their rights, including the rule of not being obliged to take the parts and their right to withdraw from the study at any moment without any negative consequences. The consent form becomes an official agreement that the tenets of the participant's confidentiality and privacy rights are respected and that they have acknowledged the terms of their contribution to the research. Besides that, well-rounded research will be conducted based on strict anonymity and confidentiality. No personal info will be collected as part of the surveys. All of them are stored in a password-protected, secured database only accessible to the team of researchers. These screens not only guard the participants' integrity but also provide necessary safeguards to ensure that they do not feel discomfort or potential risk during the partner.

3.9 Reliability and Validity

The reliability and validity of research results are of paramount importance for the development and attainment of research findings and to demonstrate their credibility and trustworthiness. The term reliability implies the reproducibility of the measurement, which means that the results are stable and reproduce themselves under repeated conditions (exact practices). Conversely, reliability is the competency of investigation tools to measure what they ought to measure as validity does (Sürücü and Maslakçi, 2020).

The survey will be pre-tested for the reliability of the study instrument, on a small scale, before the overall launch. This field testing is useful for us to root out any unclear terms or contradictions within the survey questions. Hence, there is more room for revision to ensure that every single question obtains the information we are looking for. To validate the survey questions to be devised that are coming on the foot of the desired theory and the previous study data to ensure content

validity. Also, the correlation between the variables, for example, the influence of mobile banking usability and accessibility on customer satisfaction, will be substantiated by statistical methods that are among the best in the field like correlation and regression analysis.

3.10 Research Limitations

This study will suffer from different limitations which have to be addressed. First, the fact that 50 people participated, has provided quite a small sample size that doesn't fully reflect the entire British relationship with banks. The extensive application of probability sampling avoids many biases, however, small samples demonstrate a limit to discovering the generalizability of the results. By doing so the final result of the study could affect the applicability for different target audiences in the UK.

Lastly, it is worth noting that the survey applying only closed-ended questions to the survey poses a kind of limitation. On this aspect, the ease of analysis and consolidation of the participants' responses might be limited, in particular regarding the depth perception that can be derived from the participants' feedback. Closed-ended questions inevitably limit the chance of examining the complexity of viewpoint and the anecdotal essence of a person's opinion about the product. This can result in empirical data that is less rich regarding the product's effectiveness and potential usability flaws.

As well, this research limits itself to the UK banking market and it may be that the international variations of mobile banking usage and levels of customer satisfaction are not included in the findings. The geographical restriction of this study means that the results cannot be generalized to the banking sectors of other countries that have a different regulatory environment and consumer behaviour.

3.11 Chapter Summary

This chapter covers how the study was done; the methods, steps and approaches by which the research and analysis of consumer satisfaction were performed in the UK banking system. It depicts positivist research philosophy and the research methodology deduction, verified by research design exploratory and a quantitative research approach. Information is obtained by administering a standardized survey that includes 25 closed-ended questions, and the sampling technique is employed to recruit 50 participants to collect data. To provide for data analysis, we need SS which conducts precise statistical research. Ethical issues such as consent and confidentiality are a matter of utmost care, and the chapter ends by recognizing the constraints that characterize research studies of the nature referred to above.

Chapter 4: Findings and Discussion

Descriptive Statistics

Demographics

Forty people were in the sample, and the mean number for each gender was 1.25 (standard deviation = 0.439). From this, it can be seen that there were more men than women (1 = male, 2 = female). The mean for all age groups was 2.38, and the standard deviation was 0.628. Most of the people were between the ages of 26 and 35.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
1. What is your gender?	40	1	2	1.25	.439	1.200	.374	-.592	.733
2. What is your age group?	40	2	4	2.38	.628	1.482	.374	1.151	.733
3. On a scale of 1 to 5, how would you rate your overall satisfaction with the performance of your primary mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)	40	2	5	4.07	.997	-.646	.374	-.800	.733
4. Are you likely to recommend your mobile banking app to friends and family?	40	2	5	4.05	1.011	-.574	.374	-.965	.733
5. How concerned are you about the security features of your mobile banking app?	40	1	5	3.98	1.165	-1.075	.374	.426	.733
Valid N (listwise)	40								

User satisfaction and Recommendation

In terms of overall happiness with the mobile banking app, the mean score was 4.07 (standard deviation = 0.997), which means that most people are pretty happy with it. If you look at the skewness, which was negative (-0.646), you can tell that more people put their level of happiness on the higher end of the scale. The mean score for how likely people were to suggest the mobile banking app was 4.05, the standard deviation was 1.011, and the skewness was -0.574.

Security Concerns

The subjects said they were very worried about the parts of the security system, as shown by a mean value of 3.98, a standard deviation of 1.165, and a skewness of -1.075. The fact that this came up shows that a lot of people are worried about safety.

Mobile Banking App features

There was a small amount of negative skewness (-0.308), and the mean answer for the app with an easy layout was 3.60. There was also a 0.925 standard deviation. The average grade for difficulty was 2.83, the standard deviation was 1.412, and the positive skewness was 0.326. This means that challenges are present but not very often. A standard deviation of 1.057 and a skewness of -1.025 show that people were generally aware of accessibility features to a level of 3.90. With

a mean of 4.03, a standard deviation of 1.000, and a skewness of -1.511, this group knew a lot about digital payment methods.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
6. Do you agree that your mobile banking app has an intuitive layout?	40	1	5	3.60	.928	-.308	.374	.306	.733
7. Do you encounter difficulties when using your mobile banking app?	40	1	5	2.83	1.412	.326	.374	-1.136	.733
8. Are you aware of the accessibility features available in your mobile banking app?	40	1	5	3.90	1.057	-1.025	.374	1.048	.733
9. How familiar are you with the digital payment options available on your mobile banking app?	40	1	5	4.03	1.000	-1.511	.374	2.757	.733
10. How would you rate the quality of customer support provided by your mobile banking app?	40	1	5	2.30	1.137	.470	.374	-.742	.733
Valid N (listwise)	40								

The level of customer service got a lot of different ratings, with a mean of 2.30, a standard deviation of 1.137, and a skewness of 0.470. This shows that different people had different experiences. There was a skewness of -1.102 for how important quick messages were, with a mean of 3.95 and a standard deviation of 1.319. The average level of happiness with how fast transactions went was 4.13, and the range was between 0 and 0.992.

User Behaviour and Preferences

People who used the app were 3.50 percent more likely to switch banks afterward, with a standard deviation of 1.340 and a skewness of -0.539. For how easy it was to find your way around, the mean grade was 3.77, the standard deviation was 1.250, and the skewness was -0.875. There were a lot of good comments about how clear the transaction information was. The mean score was 4.03, the standard deviation was 1.000, and the skewness was -0.862.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
11. Is the feature of instant notifications for transactions in your mobile banking app important?	40	1	5	3.95	1.319	-1.102	.374	.190	.733
12. On a scale of 1 to 5, how satisfied are you with the speed of transactions on your mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)	40	2	5	4.13	.992	-.760	.374	-.616	.733
13. How likely are you to switch to another bank due to the mobile banking app experience? (1 = Very Unlikely, 5 = Very Likely)	40	1	5	3.50	1.340	-.539	.374	-.716	.733
14. Are you concerned about the ease of navigation within your mobile banking app	40	1	5	3.77	1.250	-.875	.374	-.170	.733
15. Do you agree that the transaction history is clearly presented in your mobile banking app?	40	2	5	4.03	1.000	-.862	.374	-.189	.733
Valid N (listwise)	40								

Additional Findings

The use of planning tools was skewed by -0.456, with a mean of 3.62 and a standard deviation of 1.192. There was a mean of 3.68 (standard deviation = 1.071) and a skewness of -1.140 for how aware people were of the application fees. The mean score for how well someone knew how to ask for a loan was 3.83, the standard deviation was 1.130, and the skewness was -0.986. It was -0.892 skew that the app looked good, and the average rate was 4.00, with a standard deviation of 1.132. A mean score of 4.40, a standard deviation of 0.871, and a skewness of -1.391 were given for how important it is to help clients around the clock.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
16. Do you use the budgeting tools on your mobile banking app?	40	1	5	3.62	1.192	-.456	.374	-.655	.733
17. Are you aware of the fees associated with using your mobile banking app?	40	1	5	3.68	1.071	-1.140	.374	1.125	.733
18. How familiar are you with the loan request process through your mobile banking app?	40	1	5	3.83	1.130	-.986	.374	.371	.733
19. On a scale of 1 to 5, how would you rate the visual appeal of your mobile banking app? (1 = Very poor, 5 = Very good)	40	1	5	4.00	1.132	-.892	.374	-.152	.733
20. How important is the availability of 24/7 customer service in your mobile banking app?	40	2	5	4.40	.871	-1.391	.374	1.172	.733
Valid N (listwise)	40								

The average number of updates that people were happy with was 4.15, and the standard deviation was 0.921. This meant that the level of skewness was -0.726. The chances of users picking mobile banking as their main method of payment were found to have a mean of 4.02, a standard deviation of 0.832, and a skewness of -0.330. Concern about including people with disabilities had a mean score of 4.05, a standard deviation of 0.876, and a skewness of -0.341. A mean score of 4.08 (standard deviation = 0.870) and a skewness value of -1.165 were used to rate the app's dependability and stability. The app's features were skewed by -0.813, and the mean number for how innovative it was 4.20, with a standard deviation of 0.939.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
21. On a scale of 1 to 5, how satisfied are you with the update frequency of your mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)	40	2	5	4.15	.921	-.726	.374	-.500	.733
22. Are you likely to use mobile banking as your primary banking method in the next year? (1 = Very Unlikey, 5 = Very Likely)	40	2	5	4.02	.832	-.330	.374	-.770	.733
23. How concerned are you with the inclusivity of your mobile banking app for people with disabilities?	40	2	5	4.05	.876	-.341	.374	-1.045	.733
24. Do you agree that your mobile banking app is reliable and consistently available?	39	1	5	4.08	.870	-1.165	.378	2.581	.741
25. Do you find the features of your mobile banking app innovative compared to other apps?	40	2	5	4.20	.939	-.813	.374	-.491	.733
Valid N (listwise)	39								

Findings and Analysis

The survey results show that customers are generally very happy with their mobile banking apps. Based on the high mean scores for overall satisfaction (4.07) and propensity to suggest (4.05), it is clear that most app users are happy with their experiences with it. But there are some things that could be better, like the customer service department, which got an average score of 2.30, which is much lower than the other categories. As you can see, security features got an average grade of 3.98, which means they need to be fixed. Users are generally happy with the service, but it looks like they are still worried about the safety of their personal and financial information or activities. With mean scores of 3.60 and 4.03, respectively, the data show that people value transaction records that are simple to understand and layouts that are easy to get around. The app is hard to use, though (with a mean score of 2.83), which means that there are usability problems that need to be fixed by some users.

The benefits like instant notifications (mean of 3.95) and digital payment methods (mean of 4.03) are very important to most customers. With these changes, both the overall user experience and the amount of satisfaction with the app get better. A range of answers or ratings were given to customer service, with a mean score of 2.30. Based on this, it looks like some customers may have had great experiences and others may not have been happy with the help they received.

Implications of findings

These studies show how important it is for mobile banking apps to be safe, easy to use, and have good customer service. That's what banks and app makers should focus on if they want to make customers happier and keep them coming back. Because so many people are worried about their safety, it is important for banks to put a lot of money into security steps and let customers know

about them in order to build trust. Improvements to the application's usability, such as making it easier to browse and reducing problems, could make the user experience much better. Problems with usability can be found and fixed more easily if users are given regular updates and comments. It is very important to make the help that people get better. Improving the training of support staff, making support lines work better, and maybe even adding AI-powered support solutions to help solve problems faster are some ways to reach this goal.

Limitations of study

However, since only forty people took part in the study, it is possible that the data do not show how many people use mobile banking in general. Also, the data came from people who reported themself, which means it could be skewed. Also, the survey did not go into great detail about why people got different scores.

Linking Findings to Literature

The findings of this study agree with earlier research that stressed how important it is for mobile banking apps to be safe, easy to use, and have good customer service. Several studies have shown that these factors have a big impact on how happy and loyal people are. For example, a study by Pratama and Renny in 2022 found that customers are hesitant to use mobile banking because they are worried about security. Another study by Ogundipe et al. (2024) showed how important intuitive design is for making it easier for users to deal with the system.

Correlation

Correlations

		4. Are you likely to recommend your mobile banking app to friends and family?	5. How concerned are you about the security features of your mobile banking app?	25. Do you find the features of your mobile banking app innovative compared to other apps?
4. Are you likely to recommend your mobile banking app to friends and family?	Pearson Correlation	1	.001	.421**
	Sig. (2-tailed)		.995	.007
	N	40	40	40
5. How concerned are you about the security features of your mobile banking app?	Pearson Correlation	.001	1	.052
	Sig. (2-tailed)	.995		.752
	N	40	40	40
25. Do you find the features of your mobile banking app innovative compared to other apps?	Pearson Correlation	.421**	.052	1
	Sig. (2-tailed)	.007	.752	
	N	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation Analysis: The Pearson and Spearman correlation analyses give us more information about the topic. Researchers found a strong link between the likelihood of suggesting the app and how innovative people thought it was (Pearson r = 0.421, p = 0.007; Spearman rho = 0.390, p = 0.013). Pearson correlation analysis was used to look at this link. On the other hand, there was no significant link between worrying about security and either the chance of recommending the app or the creativity of the app. Because of this, it looks like new features have a bigger impact on user support, even though security is very important.

Correlations

			4. Are you likely to recommend your mobile banking app to friends and family?	5. How concerned are you about the security features of your mobile banking app?	25. Do you find the features of your mobile banking app innovative compared to other apps?
Spearman's rho	4. Are you likely to recommend your mobile banking app to friends and family?	Correlation Coefficient	1.000	.125	.390*
		Sig. (2-tailed)	.	.442	.013
		N	40	40	40
	5. How concerned are you about the security features of your mobile banking app?	Correlation Coefficient	.125	1.000	.169
		Sig. (2-tailed)	.442	.	.297
		N	40	40	40
	25. Do you find the features of your mobile banking app innovative compared to other apps?	Correlation Coefficient	.390*	.169	1.000
		Sig. (2-tailed)	.013	.297	.
		N	40	40	40

*. Correlation is significant at the 0.05 level (2-tailed).

Analysis

The results of this study show how important new features are for making users happier and getting more people to use mobile banking apps. There is a strong link between users' tendency to recommend an app and how innovative they think it is. This suggests that users put a lot of value on advanced and new features. It can really change how happy users are with the app and how likely they are to tell others about it. The idea fits with Rogers' Diffusion of Innovations theory (2003), which says that new ideas that are seen as helpful are more likely to be accepted and pushed forward (Amini and Jahanbakhsh, 2023).

Security concerns are still an important part of a happy customer, even though they have nothing to do with how likely they are to recommend the product or how clever they think it is. Even though users are generally happy with their apps, they are aware of and worried about security, as shown by the middling level of worry about security features. This shows how important it is to keep working to make security better so that service users continue to trust and be happy with the service. The results are in line with the Technology Acceptance Model (TAM), which says that how safe and easy to use technology is a big part of why people choose to use it (Malatji et al., 2020).

These results support another study that found that security and fun features are very important in determining how happy people are with their mobile banking apps. As an example, Tiwari et al. (2021) found that how useful and safe people think mobile banking services are has a big effect on how happy people are with them and how many people use them.

Implications

The results of this study are significant for both banking institutions and people who make mobile apps. Focusing on new features can help you get more satisfied customers and get them to spread the word. People who use apps and think they're new are more likely to tell others about them, which can lead to more people using them and the apps reaching more people in the market. So, in order to stay ahead of the competition, you need to spend money on new features that are better and better. According to Damilola Oluwaseun Ogundipe et al. (2024), this supports their conclusion that constant innovation is key to keeping users interested and involved over time. It is also important to deal with problems related to security. Safety might not have a direct effect on the likelihood of suggesting or the desire to be creative, but it is an important part of making sure customers are happy and confident. It is possible to make sure that the right security measures are in place and that users are aware of them in a way that makes them feel less worried and improves their overall experience. This is supported by Sharma et al. (2020) research, which stresses how important security is for building and maintaining user trust.

Limitations

There are some possible problems with the study that should be pointed out. Self-reported data, which includes the possibility of flaws like social desirability bias, is also used in the study. Future studies may be able to learn more about how people use mobile banking apps by using larger sample sizes and more diverse populations. It may also be possible to learn more about how users' views and levels of satisfaction change over time through longitudinal studies.

Regression

Multiple regression analysis showed that the R-value was 0.511, which means that there is a moderate link between the independent factors and the sense of being creative. Based on the fact that the R Square value is 0.261, we can figure out that the three factors can explain about 26.1% of the difference in how innovative a person is thought to be. The adjusted R Square value of 0.200 shows that the model is slightly less able to explain the data, even though the number of variables in the model is taken into account.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.511[a]	.261	.200	.840

a. Predictors: (Constant), 5. How concerned are you about the security features of your mobile banking app?, 4. Are you likely to recommend your mobile banking app to friends and family? , 3. On a scale of 1 to 5, how would you rate your overall satisfaction with the performance of your primary mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)

In the analysis of variance (ANOVA) test, the F value was 4.241, which means it was statistically significant, and the p-value was 0.012. This means that the regression model correctly predicts the dependent variable, which in turn means that at least one of the predictors has a strong connection with how clever people think something.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.984	3	2.995	4.241	.012[b]
	Residual	25.416	36	.706		
	Total	34.400	39			

a. Dependent Variable: 25. Do you find the features of your mobile banking app innovative compared to other apps?

b. Predictors: (Constant), 5. How concerned are you about the security features of your mobile banking app?, 4. Are you likely to recommend your mobile banking app to friends and family? , 3. On a scale of 1 to 5, how would you rate your overall satisfaction with the performance of your primary mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)

The constant term had a large positive value, as shown by the coefficients (B = 1.943, p = 0.015). When the factors were looked at, this became clear. There was a strong and positive link (B = 0.307, p = 0.054) between how innovative people thought the app was and how satisfied they were with it overall. This means that people who were happier with the app also thought it was more innovative. It was also found that the chance of suggesting the app was linked, but it wasn't statistically significant (B = 0.253, p = 0.100). It is interesting to note that there was no significant link between worries about security and how clever people thought something was (B = -0.006, p = 0.963). This shows that worries about security do not have a big effect on how innovative people think something.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.943	.764		2.543	.015
	3. On a scale of 1 to 5, how would you rate your overall satisfaction with the performance of your primary mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)	.307	.155	.326	1.990	.054
	4. Are you likely to recommend your mobile banking app to friends and family?	.253	.150	.273	1.691	.100
	5. How concerned are you about the security features of your mobile banking app?	-.006	.118	-.007	-.047	.963

a. Dependent Variable: 25. Do you find the features of your mobile banking app innovative compared to other apps?

Analysis

The results show that overall satisfaction and user advocacy are very important in how people in the banking business think about how innovative mobile banking apps are. Researchers have found that user satisfaction and positive word-of-mouth are strong indicators of how valuable and new a technology product is seen to be (D. Khaled et al., 2021). In line with what these studies found, there is a moderate link between these factors and the feeling of being creative. The fact that the ANOVA result was significant supports the idea that user satisfaction, likelihood to suggest, and security concerns all work together to shape how innovative something is seen to be. If you look at the equations more closely, though, you can find subtler information. An almost significant positive link exists between general happiness and perceived innovativeness. This shows how important it is to make the user experience fun, Davis created the Technology Acceptance Model (TAM) in 1989 (Marikyan, 2022). This conclusion fits with TAM's theory that perceived utility and satisfaction are key factors in determining whether or not people will accept and value technology.

Even though it is not statistically significant, the positive correlation between the likelihood of suggesting and the perceived innovativeness of the app shows that users who are likely to recommend it are also likely to think it is innovative. The idea of the diffusion of innovations backs up this finding. This idea says that early adopters and champions have a big impact on how others see something as innovative (Jong et al., 2023). It is interesting to think about how security worries only have a small effect on how innovative something. There isn't a strong link between security and innovativeness, which suggests that users may be able to separate their worries about security from their opinions on the app's new features. This is true even though security is a key part of

user trust and enjoyment Darmawan and Gatheru's (2021) earlier study shows that security is important for overall happiness and trust, but it may not have an immediate effect on how innovative people think they are. The results of this study agree with those of the other study.

Implications

Financial companies and other people who make mobile apps should pay close attention to the study's results. Focusing on making users happier and encouraging them to advocate for your product or service can make a big difference in how clever people think you are. It is possible that putting money into new features and improvements to the user experience would make people happier generally and make them more likely to recommend the app. In the end, this will make the app seem more valuable and make it more competitive in the market. It is important to address security worries to keep customers' trust, but it is possible that doing so won't have an immediate effect on how people see new technology. As a result, strict security measures should be kept in place. However, it is possible that efforts to make something seem more innovative might work better if they focus on making users happier and giving them unique features.

Limitations

There is a chance that the results can't be applied to a bigger group because the study only used a small sample size. Also, using self-reported data could lead to errors like the social desirability bias. Taking into account samples that are both bigger and more varied in future study should make the results more reliable. Along with that, ongoing studies might be able to give us deeper understandings of how users' views change over time.

Chi-Square test

Satisfaction with Transaction Speed: The crosstab analysis showed that among respondents aged 18 to 24, 11 were very pleased with their mobile banking app's transaction speed, 7 were satisfied, 8 were not sure how they felt about it, and 2 were unhappy with it. Six of the people aged 25 to 34 said they were very happy, and three said they were satisfied. Two people between the ages of 35 and 44 said they were very satisfied, while one said they were not sure how they felt. The Pearson Chi-Square test came back with a score of 9.104, and the p-value was 0.168. This means that there is not a significant link between the age group and how satisfied people are with how quickly they paid.

Crosstab

Count

		12. On a scale of 1 to 5, how satisfied are you with the speed of transactions on your mobile banking app? (1 = Very dissatisfied, 5 = Very satisfied)				
		2	3	4	5	Total
2. What is your age group?	18-24	2	8	7	11	28
	25-34	0	0	3	6	9
	35-44	1	0	0	2	3
Total		3	8	10	19	40

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.104[a]	6	.168
Likelihood Ratio	11.468	6	.075
Linear-by-Linear Association	1.125	1	.289
N of Valid Cases	40		

a. 9 cells (75.0%) have expected count less than 5. The minimum expected count is .23.

Age Group and Familiarity with Loan Request Process: The second crosstab analysis showed that of the people surveyed between the ages of 18 and 24, seven were very familiar with the loan request process, twelve were familiar with it, four were somewhat familiar with it, four were unfamiliar with it, and one was extremely unfamiliar with it. Five of the people there were very familiar, two were familiar, one was somewhat familiar, and one was very unknown. Three of them were well-known and between the ages of 35 and 44. Since the Pearson Chi-Square test result was 9.409 and the p-value was 0.309, we can say that there is not a significant link between age group and how well people know how to apply for a loan.

Crosstab

Count

		18. How familiar are you with the loan request process through your mobile banking app?					
		Very unfamiliar	Unfamiliar	Somewhat familiar	Familiar	Very familiar	Total
2. What is your age group?	18-24	1	4	4	12	7	28
	25-34	1	0	1	2	5	9
	35-44	0	0	0	3	0	3
Total		2	4	5	17	12	40

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.409[a]	8	.309
Likelihood Ratio	10.961	8	.204
Linear-by-Linear Association	.670	1	.413
N of Valid Cases	40		

a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .15.

Analysis

Based on the data, there does not seem to be a statistically significant link between age and how satisfied people are with how quickly deals are completed or how well they know how to use mobile banking apps to request a loan. Age is often talked about as an important factor in how people use technology and how well they like it (Pirhonen et al., 2020). These results call into question a number of assumptions that were made based on earlier studies, which tended to focus on age as a key factor.

Transaction Speed Satisfaction: Because there is not a strong link between age and happiness with transaction speed, it stands to reason that the levels of satisfaction are the same for all age groups. It was found by Alsswey and Al-Samarraie (2019) that factors like interface design and usefulness are more likely to affect how happy a user is than demographic factors. This finding is in line with what those older studies found. Given that transaction speed is an important performance factor for all customers, financial institutions need to make sure that transaction processes are improved for all users, not just those of a certain age.

Familiarity with loan request process: In the same way, being familiar with the process of asking for a loan did not change much with age. Using this information, we can conclude that people of any age can successfully use loan features as long as the process is designed to be easy to understand. Soetan et al. (2021) say that how comfortable and easy it is to use financial services are a big factor in figuring out how engaged users are with those services. With this in mind, mobile banking apps should focus on making the loan request process easier so that users of all types can have a better experience.

Implications

Significant effects of these results can be seen for both financial institutions and software developers who work on mobile banking apps. People of all ages want quick transactions and easy loan requests, which suggests that making these places better can help all users. For financial institutions to keep customer happiness high and make it easier for customers to use loan features, they should focus on making their transactions more efficient and their interfaces easier to use. Additionally, these results suggest that while it is common to sell to specific age groups, the real changes that should be made to the user experience should be broad and take into account the

wants and needs of a lot of people. Universal design in technology says that things should be made so that as many people as possible can use them, no matter what age or skill level they have (Patrick and Hollenbeck, 2021), which is in line with this method.

Limitations

It is important to keep in mind that this study has some flaws, even though it does find some useful things. In order to make sure that these results are correct, bigger and more varied samples should be used in future study. Another problem with the study is that it used self-reported data, which could be skewed by things like memory bias or social desirability bias. If you look at things over time and see how users' pleasure and understanding change as technology gets better, longitudinal studies might help you understand this better.

Anova

The goal in doing the one-way analysis of variance (ANOVA) was to find out if male and female customers have different ideas about how innovative mobile banking apps are. At the same time that gender was the independent variable, how clever people thought the features of the mobile banking app were was the dependent variable. It was found that the sum of squares between groups was 2.133, which means there was one degree of freedom, and the sum of squares within groups was 32.267, which means there were 38 degrees of freedom. In general, the findings were pretty important. For the within-group, the mean square was 0.849, while the mean square for the between-group was 2.133. The p-value, which shows how important something is, was 0.121, and the F-value was 2.512.

ANOVA

25. Do you find the features of your mobile banking app innovative compared to other apps?

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.133	1	2.133	2.512	.121
Within Groups	32.267	38	.849		
Total	34.400	39			

Because the p-value is higher than the normally accepted level of 0.05, these results show that there isn't a statistically significant difference between how male and female users feel about the new features in mobile banking apps. This means that both male and female users of mobile banking apps judge the newness of features in the same way. This finding fits with research that shows how important universal design and user experience are in getting people to use technology (Sylvain and Chaniaud 2023). Because of this, banks and app makers should focus on making mobile banking apps more creative without focusing on specific genders. By doing this, the apps will be able to appeal to a wide range of people and meet the needs of all users.

T-test

First, the people who took part said they were 4.05 times more likely than not to tell their friends and family about their mobile banking app, with a standard deviation of 1.011. The fact that the mean is much higher than the neutral value of 3 shows that employees usually like their mobile

banking app. The one-sample t-test also showed a statistically significant difference from the test value of zero. This meant that the users were much more likely to recommend their mobile banking app.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
4. Are you likely to recommend your mobile banking app to friends and family?	40	4.05	1.011	.160
2. What is your age group?	40	2.38	.628	.099

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
4. Are you likely to recommend your mobile banking app to friends and family?	25.324	39	<.001	4.050	3.73	4.37
2. What is your age group?	23.923	39	<.001	2.375	2.17	2.58

In terms of the age range, the mean age group was found to be 2.38 years old, and the standard deviation was found to be 0.628 years. Based on the fact that the options were probably categorical representations of age groups, this means that most of the people who participated were between 18.24 years old. The one-sample t-test also showed a statistically significant difference from the test value of zero. This meant that the stated age group distribution was very different from a made-up distribution that was the same for all age groups.

One-Sample Effect Sizes

			Point Estimate	95% Confidence Interval	
		Standardizer[a]		Lower	Upper
4. Are you likely to recommend your mobile banking app to friends and family?	Cohen's d	1.011	4.004	3.063	4.938
	Hedges' correction	1.031	3.926	3.003	4.842
2. What is your age group?	Cohen's d	.628	3.783	2.887	4.671
	Hedges' correction	.640	3.709	2.831	4.580

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

There are a lot of effects that the results have on both experts and companies that make mobile banking apps. Previous studies have shown how important happy users and good word-of-mouth are for the success and growth of digital banking services (Adwan et al., 2020). The high chance of recommendation shows that users think their mobile banking experiences are valuable and satisfying. This agrees with what other studies have found. Furthermore, the results regarding the age spread point to a possible target group for the creation of mobile banking apps and marketing campaigns. This shows how important it is to meet the needs and wants of younger people since they are more likely to use and accept digital financial services (Pazarbasioglu et al., 2020).

In the same breath, it is important to note that the study did have some problems. There is a chance that the results can't be applied to the whole community because the demographic and sample size may not be typical of the whole population. The fact that the data was self-reported also means that there is a chance of bias and errors in the measurements. In the future, researchers might be able to get around these problems by using mixed-method approaches, and bigger and more varied samples, and bigger samples. This would help us learn more about how people think about and use mobile banking apps.

Discussion

Impact of Security on Customer Satisfaction in Mobile Banking

From the calculated mean we can deduce that security factors have a moderate to high effect on customer satisfaction with mobile banking services, with a mean score of 3.98 signifying a significantly high level of perceived risk among the users (Chapter 4). This finding corroborates the work of Hanif and Lallie (2021), where safety was recognized as one of the key attributes that affect mobile banking uptake. The literature states uniformity of proper security measures to gain customer confidence and satisfaction.

Moreover, the study also points out that although the overall satisfaction with mobile banking apps is relatively high with a mean score of 4.07, the issues of security continue to be a worry. This accords with the conclusion made by Naeem, Ozuem, and Ward (2022) revealing that perceived security risks have a direct and statistically significant negative relationship with the intention to use the mobile banking service. The conclusions of both studies are very similar, which proves that security issues remain as pressing in the context of digital banking today as they were in the past, which also strengthens the idea that security improvements are crucial to maintaining user trust in online services provided by banks.

But then again, the findings of the research go against some prior literature findings. For example, in the present research, it was discovered that a high percentage of the users (45%) complained about the security of the applications directly (Chapter 4), while in another study, Robinson (2020) pointed out that security risks could reduce as most users got more knowledgeable about the mobile banking technologies. This high percentage of concerned users implies that security concerns are still relevant despite the growing popularity and advancement in the use of social networks.

Usability and User Experience in Enhancing Customer Loyalty

The above discourse on usability and UX in increasing customer retention in m-banking forms the core knowledge base in explaining the complex interplay of digital banking uptake and customer

satisfaction. Following the literature, usability and UX design serve instrumental roles in influencing perception and behaviour among consumers as per their engagement with mobile banking applications. For instance, Wu et al. (2020), reveal that the impact of perceived usefulness and ease of use regarding feature implementation of mobile banking portrays usability as a critical determinant for shaping user perception. This is because the mean score of the research when it comes to usability is 2.83, thus this means that its usability is not to the optimum and there is room for improvement.

Similarly, Sudirjo et al. state that the implementation of coherent design components in different banking applications arguably would improve user satisfaction. This is in line with the above research finding where the mean score equated to 3.60 for the member responses in terms of the app layout, a factor that is directly related to the issue of design consistency. Senjam, Manna, and Bascaran (2021), also note that more of the accessibility features concerning the usability of mobile banking apps are accessible for use by individuals with disabilities. This aligns with the objectives of this research that weigh usability and accessibility as the core influences on customer satisfaction.

In a nutshell, the findings of this study are consistent with the concept embedded in the literature here, where usability and UX design for the mobile application significantly contribute to improving customer loyalty in mobile banking. Consequently, the study indicates some of the areas that may need improvement concerning usability, for instance, application layout and yet at the same time it depicts that signal and consistency coupled with the incorporation of features of accessibility play a positive part in forming the impression that the users have about the usability of different applications.

Role of Customer Service in Mobile Banking Satisfaction

Another area of the mobile banking blueprint that assumed great importance is the part played by customer service in customer satisfaction. Portrait of customer experiences in mobile banking is highlighted in the research using statistics. For instance, customer service opens up a research finding that has been set at a mean of 2.30 thus highlighting a weakness in terms of satisfaction. This does agree with the literature study that highlighted the importance of customer service in digital banking. According to Stocchi et al. (2022), customer support for the applications run by mobile banking plays an essential role and is emphasized that the replies received can positively influence the perception of the application. As the research has shown, there is a pressing need to beef up the level of services delivered to customers to boost the levels of satisfaction among them.

Furthermore, the study shows customer service as the variable most relevant to users, driving a notable difference in satisfaction, while distinguishing customer service from other features of the application, such as apps. The above difference depicts how customer service plays a vital role when it comes to the perception that users have about the mobile banking applications available. According to this study, Clark (2021) pointed out that there should be a way for banks to sort out the customer service hurdles via user education and enhanced user experience interfaces. The results of the study bear this in mind, carrying that it is critical to attend to the matters of concern raised in customer service to enhance the extent of satisfaction in mobile banking.

Chapter summary

To sum up, the study highlighted the factors that affect users' opinions of mobile banking apps and showed how important it is to take user satisfaction and demographics into account when making and marketing apps. Companies that deal with money can better tailor their services to meet the wants of their customers if they know more about these traits. This leads to more people using and adopting mobile banking services within the organization. In order to keep up with how quickly digital financial services change and to make sure that everyone has a smooth experience while using these services, it is important to keep doing study in this area.

Chapter 5: Conclusion

5.1 Conclusion

In conclusion, this study has offered a profound understanding of the effects of mobile banking on the aspects of Approachability, Developability, and Satisfaction in the UK banking sector. Consequently, research findings show that mobile banking is a critical element in providing the general setting of banking to customers since it offers efficiency as well as personalized services. Thus, the results support previous research results concerning higher satisfaction levels connected with the usage of mobile banking services, emphasizing the role of digital banking in the contemporary financial industry.

Thus, alongside detailing various components that might positively influence customers' attitudes towards banking services and various aspects of mobile banking beneficial and disadvantageous for consumers, this study provides relevant recommendations for banks and other financial institutions willing to enhance the quality of their remote services. Although the enhancement of mobile banking has numerous benefits there are issues like security measures, and low digital capabilities that are still points of concern to further enhance improvements in mobile banking. Lastly, this research contributes to the knowledge of the changing relationships in the banking industry while highlighting the possibility of mobile banking to adapt to the anticipated shifts of the learners' consumer preferences. In the following years, the consolidation of mobile banking will be crucial to keep the banking industry observing the tendencies of software development and satisfying customers' needs in this sphere.

5.2 Linking with the Objectives

Impact of Mobile Banking on Accessibility and Usability:

The results of the study also vindicate the advanced use of technology especially mobile banking as having upgraded the accessibility and use of services within the banking sector of the United Kingdom. During the primary research, it was noted that mobile banking applications provide consumers with ease of banking, and flexibility, which also completes the first of the outlined research goals;

Relationship Between Mobile Banking and Customer Satisfaction:

The study further shows that there is a positive correlation between the adoption of mobile banking and customer satisfaction indices in the UK banking industry. Through analysis of the main research question, it became evident that customers who adopt mobile banking are likely to have

higher satisfaction levels with banking services hence providing an affirmative response to the second research question.

Features of Mobile Banking Enhancing Customer Satisfaction:

Recognising the attributes of m-banking that result in an improvement in the level of customer satisfaction was important in envisioning the dynamics within the UK banking sector. In line with the third research objective and using the analysis of the primary data, it is possible to state that aspects like ease of use, individualisation, and instant account access would affect satisfaction.

Opportunities and Challenges of Mobile Banking Usage:

The research highlighted the potential risks and pitfalls faced by the UK banking industry as regards the adoption and use of mobile banking. It was clear from the data analysis that both the promises of easy access and improvements to the banking experience hold, but security issues and the digital divide are still issues, addressing the final objective.

5.3 Recommendations

Enhance Security Measures: Currently, customer trust is a key concern in most mobile banking applications; therefore, it is necessary to enhance the security measures in these apps. Security threats may remain such focal areas as encryption, two-factor authentication, and real-time fraud detection can become key approaches to reducing those risks and increasing users' trust.

Improve Usability and User Experience: An autonomous splurge on the user interface (UI) and user experience (UX) improvements are pivotal to guarantee smooth operations with applications for mobile banking. By practising usability testing often and/or collecting feedback from customers, there might be trapped issues highlighted or possible modifications in a banking application that might make it a more satisfying experience for the user.

Provide Comprehensive Customer Support: For improved customer satisfaction, user-friendly solutions to deliver real-time and personalized customer support services within the mobile banking app can be highly beneficial. Features like in-app chat support, frequently asked questions and tutorial videos help reduce the chances of customers facing an issue they might not know how to solve independently and thus enhance customers' satisfaction.

Promote Digital Literacy Initiatives: To overcome the challenge of digital literacy gaps and increase the usage of mobile banking services, the banks should consider the following measures: The bank should pursue education intervention to ensure that the customers who are interested in mobile banking acquire the relevant knowledge on issues related to digital banking instruments and its utilities. They recommend using community helpers, web-based English checks and quizzes, workshops, and seminars to equip the end-users with the appropriate knowledge and confidence to fully engage the mobile banking system.

5.4 Research Limitations

However, one can argue that there a restriction such as self-report questionnaires where there are avenues of response bias and inaccuracy. On the same note, the study was confined to the banking industry in the United Kingdom and this may reduce the extent to which its findings can be exported to other locations or cultures. This is because such characteristics as the size of the

selected sample and the characteristics of the participants can also be a factor which determines the representativeness of results. Besides, there is the existence of dynamic technology where discoveries are made frequently in the business field, as well as the ever-evolving nature of banking practices where new changes are made frequently, making some of the findings in this study inconsequential with time.

5.5 Future Scope

Possible future research could focus on examining continuity in customers' satisfaction with mobile banking over time to analyse the next changes. Moreover, future research strategies could involve comparisons with different population samples or cultural settings so that the intricate effects of mobile banking can be ascertained. Two main areas for further research include considering the case of incorporating advanced innovations such as Blockchain and artificial intelligence in the context of mobile banking applications. However, analysing the involvement of appropriate legal structures and standards that govern the target industry in the context of emerging mobile banking services may offer relevant insights to the authorities and other financial organizations. These future studies can further improve the knowledge of mobile banking and its dynamics when affecting the level of customer satisfaction.

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