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NEXUSES BETWEEN THE DIGITAL BANKING SERVICES, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY: EMPIRICAL EVIDENCE OF AFGHANISTAN INTERNATIONAL BANK (AIB)

MAIWAND MAMOOD

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ÖZET

DİJİTAL BANKACILIK HİZMETLERİ, MÜŞTERİ MEMNUNİYETİ VE MÜŞTERİ SADAKATİ ARASINDAKİ BAĞLANTILAR: AFGANİSTAN ULUSLARARASI BANKASI'NIN (AIB) AMPİRİK KANITI

Onlarca yıldır bankacılık sektörü nispeten istikrarlı bir ortamda çalıştı ancak elektronik bankacılığın ortaya çıkışından sonra beklenmedik şekilde agresif ve rekabetçi hale geldi. Bu çalışma Afganistan'da internet bankacılığı, mobil bankacılık, kredi kartları ve ATM'lerin müşteri sadakati üzerindeki etkisini araştırmaktadır. Dijital bankacılık faktörleri ile müşteri sadakati arasındaki ilişkide müşteri memnuniyetinin aracılık etkisini anlamayı amaçlamaktadır. Araştırma, bağımsız ve bağımlı değişkenler arasındaki ilişkiyi analiz etmek için betimsel bir yöntem kullanmaktadır. Çalışmada Kabil, Herat ve Kandahar şehirlerinde dijital finansal hizmetlere ilgi duyan Afganları değerlendirmek için Bes puanlı Likert ölçekli bir anket kullanılıyor. Çalışma niceliksel bir araştırma tasarımı kullanıyor ve popülasyonun değişkenlerini ve ilişkilerini incelemek için PLS-SEM ve diğer istatistiksel yöntemleri kullanıyor. Çalışma, internet bankacılığı ile müşteri memnuniyeti arasında negatif bir ilişki olduğunu, ancak mobil bankacılık ve Banka kartlarının müşteri memnuniyeti ve sadakati üzerinde olumlu bir etkiye sahip olduğunu ortaya koyuyor. Banka kartları ve ATM'ler de müşteri memnuniyetine katkı sağlıyor. ATM'lerin müşteri memnuniyeti üzerinde önemsiz bir etkisi vardır. İnternet bankacılığı, mobil bankacılık, Banka kartları ve müşteri sadakati arasındaki ilişkiye müşteri memnuniyeti aracılık ederken, ATM ile müşteri sadakati arasındaki ilişkiye müşteri memnuniyeti aracılık etmemiştir.

Anahtar Kelimeler: İnternet Bankacılığı, Mobil Bankacılık, Banka Kartı, ATM, Müşteri Memnuniyeti, Müşteri Bağlılığı.

ABSTRACT

NEXUSES BETWEEN THE DIGITAL BANKING SERVICES, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY: EMPIRICAL EVIDENCE OF AFGHANISTAN INTERNATIONAL BANK (AIB)

For decades, the banking industry has worked in a relatively stable environment, but it has become unexpectedly aggressive and competitive after the emergence of electronic banking. This study investigates the impact of Internet banking, mobile banking, credit cards, and ATMs on customer loyalty in Afghanistan. It aims to understand the mediating effect of customer satisfaction on the relationship between digital banking factors and customer loyalty. The research uses a descriptive method to analyze the relationship between independent and dependent variables. The study uses a five-point Likert scale survey to assess Afghans interested in digital financial services in Kabul, Herat, and Kandahar cities. The study employs a quantitative research design and uses PLS-SEM and other statistical methods to examine the population's variables and relationships. The study reveals a negative relationship between Internet banking and customer satisfaction, but mobile banking and debit cards have a positive effect on customer satisfaction and loyalty. Debit cards and ATMs also contribute to customer satisfaction. ATMs have an insignificant impact on customer satisfaction. Customer satisfaction has mediated the relationship between Internet banking, mobile banking, debit cards, and customer loyalty, while customer satisfaction has not mediated the relationship between ATM and customer loyalty.

Keywords: Internet Banking, Mobile Banking, Debit Card, ATM, Customer Satisfaction, Customer Loyalty.

ABBREVIATIONS

CS:	Customer Satisfaction
CL:	Customer Loyalty
PLS-SEM:	Partial Least Squares Structural Equation Modeling
SPSS:	Statistical Package for the Social Sciences
ATM:	Automated Teller Machine
MB:	Mobile Banking
DC:	Debit Cards
AIB:	Afghanistan International Bank
TAM:	Technology Acceptance Model
RBV	Resource Based view
DOI	Diffusion of Innovations

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1. INTRODUCTION

In today's years of science and technology, banking services have become more innovative and feasible globally (Asia, 2015). Technology has transformed banking from manual ledgers to systemized processes, enhancing efficiency, convenience, and time savings by moving banking from manual to automated systems (Kiragu, 2017). In contrast to traditional banking, which depends on non-website-based settings, Internet banking allows users to communicate via network technology. It enables consumers to do multiple banking operations electronically at any time and from any location, with low handling costs. It plays an important role in lowering operational and fixed expenses (Faith Kagendo and Nairobi, 2015). Internet banking also assists banks in developing stronger relationships with their consumers. With the usage of smartphones and tablets, the growth of online banking in Afghanistan has risen substantially, with current internet penetration reaching 14% of the population (Rumaini et al., 2023).

On the other hand, customer acceptance of Internet banking has yet to achieve predicted levels. Poor service quality and client discontent are common complaints (Siddik et al., 2016). Customers need help to modify their habits and behaviors, which is the biggest hurdle to their desire to utilize Internet banking services (Sumra et al., 2011). Potential customers' openness to the technology in question must also be considered an important factor. Lack of consumer skills and experience with computers and technologies, interpersonal and social networks, security concerns, habit and personality traits, and a lack of awareness and understanding of the benefits of Internet banking services are all factors influencing customer attitudes towards Internet banking (Keramati et al., 2018). Better service quality, client dissatisfaction, and a lack of awareness and understanding of its advantages could all increase the adoption of online banking (Rozhkova et al., 2021).

In recent years, the banking industry has faced greater contention, prompting banks to innovate and adopt new technology to maintain consumer satisfaction (Rahmani et al., 2012). Mobile banking is a significant tool in this revolution, providing users convenience, credibility, ease of use, and promptness. While these financial technology applications, part

of the Fintech sector, continue to serve the basic function of checking account balances, they have increasingly become integral components fundamentally reshaping the day-to-day financial experiences of their users (Sundarraj and Wu, 2005).

AIB, a leading bank in Afghanistan, has been recognized for its corporate governance and digital services, receiving licenses to issue and acquire Visa cards for the first time. This move demonstrates AIB's commitment to enhancing its customer experience and ensuring its continued success in the banking industry (Njoroge and Mugambi, 2018). Bank debit cards are an increasingly common way of accessing banking goods and services since they allow for cashless payments and electronic access to users' bank accounts. They work as cash and check alternatives, making life easier by allowing access to cash while transacting (Olwande and Ngaba, 2019). The AIB bank provides a platform for credit/debit card transactions under a fee-sharing arrangement, transfers cash in ATMs, and charges usage to CSC (Aduda & Kingoo, 2012).

In Asia, the Pacific, the Middle East, and Africa, Madrid reported a 38% year-on-year rise in transactions handled through its e-commerce platform, the MasterCard Internet Gateway Service (MIGS). E-commerce has become one of the world’s most important trading channels with 764 million internet users in Asia-Pacific and 1.8 billion worldwide (Auwal Musa, 2014). MasterCard has capitalized on this opportunity by offering MIGS, a safe and reliable internet payment solution (Gunson et al., 2011). According to the company's most recent online shopping study, safe payment options and simple payment methods are the most critical aspects impacting consumers' online purchasing experiences. The MIGS also provides merchants with useful tools for managing e-commerce transactions and decreasing operating expenses (Nalyanya, 2021).

ATM technologies have transformed the banking industry, with ATM banking being the second most prevalent means of obtaining banking products and services. These inter-organizational systems connect banks and other financial institutions to retail banking consumers for everyday banking operations such as inquiries, deposits, cash withdrawals, cash transfers, and payments (Mukerjee, 2020). ATMs were introduced in Malawi in the early 2000s, and all commercial banks currently have a network of ATMs for the supply of banking products and services (Pooya et al., 2020). ATMs are said to have increased operational efficiency and customer service in the banking industry. They have high fixed

expenses but low variable transaction processing costs, which might be utilized to replace human tellers for staff offering on-demand deposit accounts. This would minimize direct customer service jobs while providing banks a competitive advantage (M et al., 2016). It is necessary to pay attention to ATM technology as banks continue to expand their investments in newer and more effective ATM technologies to facilitate the efficient delivery of banking. For microfinance institutions to remain profitable, they must use competitive services and expand their base of satisfied clients (Hossain, 2021). However, early use of ATM technology may not necessarily increase or even minimize human resource competency or efficiency (MOHAMED, 2021).

Furthermore, Customer satisfaction is the level of satisfaction an organization achieves by meeting or exceeding consumer expectations. Meeting user expectations for reliability, safety, and ease of use in mobile banking services is the main way to achieve it. High satisfaction leads to increased engagement in mobile banking, while low satisfaction discourages usage (Musiega, 2016). Stalin and Nayef Al-Manayseh (2020), stated that satisfaction is a person's pleasure or displeasure from comparing an item's performance or result to expectations. Rani, (2017) stated that electronic satisfaction in an Internet-based context refers to a customer's perceived satisfaction with a prior purchasing experience with a particular e-commerce site. Overall, satisfaction helps decode the extent to which clients demand a product and encourages them to return.

Besides, loyalty is a customer commitment to consistent product and service use, leading to a recurring purchase pattern and a preference for a single supplier (Alsmadi et al., 2019). Customer loyalty is based on their overall satisfaction with the service provider. Loyalty, a concept studied by marketing professionals, lacks a standard definition due to its measurement using behavioral and attitudinal dimensions (Doran et al., 2022). Expressed preferences describe brand loyalty or buy intentions on the attitudinal dimension, as well as actual purchases on the behavioral component. The attitude component refers to a consumer's mental state towards a brand. Customer loyalty as a behavioral concept examines how individuals really purchase goods (Khan and Alhumoudi, 2022). According to Angusamy et al. (2022), in order to prevent incorrect evaluations of loyalty, one must consider attitude and conduct.

1.1. PROBLEM STATEMENT

E-banking has drastically transformed the financial services industry, redefining how banks generate money (Ul Haq and Awan, 2020). However, new ways are required to continue development in electronic banking due to competition and changing customer demands (Alzoubi et al., 2022). E-banking provides efficient, cost-effective, and convenient financial services, expanding consumer reach and improving financial inclusion, particularly in rural regions (Rajasulochana et al., 2022). Financial institutions must invest in solid infrastructure and security measures to foster and maintain development in electronic banking. Staying competitive in the quickly changing digital market requires continuous innovation and adaptability to client requirements (Khan and Alhumoudi, 2022). Consequently, this research examines the impact of digital banking services on customer satisfaction at AIB Bank in Afghanistan, including Internet banking, mobile banking, debit cards, and ATMs. The mediating effect of customer satisfaction between digital banking services and customer loyalty is also examined in this research. This study is anticipated to offer valuable insight for AIB bank policymakers, enabling them to enhance their digital banking services and increase bank finances. Additionally, this research is helpful for the government of Afghanistan to understand the needs of Afghanistan's individuals and provide better services through which they can enhance their business, like imports and exports, etc.

1.2. OBJECTIVES

The study objectives are given below:

- To assess the influence of digital banking services on Customer Satisfaction.
- To assess the influence of customer satisfaction on customer loyalty.
- To assess the mediating role of customer satisfaction between digital banking services and customer loyalty.

1.3. RESEARCH QUESTIONS

The research questions for this study are given below:

- Is there an impact of digital banking services on the customer satisfaction?
- Is there an impact of customer satisfaction on the customer loyalty?

- How does the customer satisfaction mediate the relationship between the digital banking services and the customer Loyalty?

1.4. SIGNIFICANCE OF THE STUDY

This study significantly enhances customer behavioral knowledge by identifying how digital banking services influence customer satisfaction and loyalty, which is vital for banks to improve their services. It helps plan and promote digital banking services by giving real-life examples. It also improves financial inclusion by giving more FNSs and banks the chance to get a competitive edge by defining the most valuable digital services. Further, the research extends the knowledge pool concerning digital banking, customer satisfaction, and customer loyalty, which is helpful for further studies and policy-making regarding expanding financial services and the growth of a nation's economy. They stressed the need for constant innovation in digital technology, efficient approaches to retaining customers, and the need to act as a reference point for institutions seeking to upgrade their digital experience.

2. REVIEW OF LITERATURE

2.1. THEORETICAL FOUNDATION

2.1.1. Technology Acceptance Model (TAM)

The term "technology acceptance model" refers to a set of hypotheses and framework assumptions that attempt to characterize the conditions under which new technologies are adopted and employed (TAM) (Banjarnahor, 2021). This theory explains why and how people use information technology in the workplace. This theory was established by academics Fred Davis and Richard Bagozzi and is used to evaluate the usefulness and simplicity of using technologies from the perspective of their end users (Amiri Aghdaie et al., 2012). The perceived utility of a technology lies in its potential to enhance the efficiency of its users. This metric between the digital banking services and the customer Loyalty quantifies how simple people think it is to use a piece of technology. Due to the nature of e-banking approaches as information technology systems used to provide client services, TAM is applicable in the banking business. In order to better serve their customers, banks have

started using various payment processing technologies such as point-of-sale terminals, credit cards, debit cards, secure internet servers, mobile banking, automated teller machines, and internet banking (Pagani, 2006). In addition, clients use e-banking tactics at varying proficiency levels to get access to banking services. Banks use e-banking techniques to facilitate clients' access to and utilization of financial services across numerous channels (Niswaty et al., 2022).

2.1.2. Diffusion of Innovations Theory (DOI)

The theory can predict how new products and services will spread across the economy by examining these factors. Everett Rogers developed the theory 1962 to explain how innovations move from their initial introduction to becoming widely accepted in a particular market. The availability of communication channels, the nature of the innovation, the number of early adopters, the social system, and the passage of time all impact adoption rates (Chaipoopirutana et al., 2009). Effective use, consumer acceptance, a robust communication channel, a significant time commitment, and a supportive social environment are all necessary for innovations to spread quickly. The adoption process for innovations involves five stages: education, influence, analysis, implementation, and verification. Since e-banking is an innovation banks have created and implemented to varying degrees, the diffusion of innovations theory is relevant to the banking industry. Technological advances, economic stability, government regulations, and societal norms have influenced the adoption of e-banking by banks around the world (S Cheng et al., 2004). E-banking strategies in developed countries are more advanced than those in underdeveloped countries like Pakistan. According to an analysis of the banking industry in Asia, banks have implemented various e-banking strategies such as point-of-sale terminals, credit cards, debit cards, secure Internet servers, mobile banking, ATMs, and Internet banking (Hornor, 2007).

2.1.3. Resource-Based View (RBV)

According to researcher (Mahoney, 2001), resource-based theory (RBV), an organization's competitive advantage and high performance stem primarily from its distinctive resources and capabilities. Commercial banks in Pakistan that have embraced e-banking services have a leg up on the competition thanks to the many ways these services

may be used to the bank's advantage. A company's resources and capabilities include its technology setup, human capital, client base, financial backing, and name recognition. The financial performance of the banks that have invested in these resources is expected to improve (Barney et al., 2021).

According to researcher (Hitt et al., 2016), Banks can now provide their clients with a broad variety of simple and efficient e-banking services thanks to the enabling technology infrastructure, which includes powerful online banking platforms and secure mobile banking apps. Increased sales and profits result from happier consumers who are more likely to become repeat buyers. Skilled human capital is crucial to effectively managing and rolling out e-banking services. Only institutions with staff with extensive training in customer service, information security, and online banking operations can provide high-quality banking services. This boosts consumer confidence, lowers operational risks, and improves financial performance results. Investment in online banking's infrastructure, technology, and security measures requires access to substantial capital. When banks dedicate sufficient funds to these initiatives, they create secure online banking platforms, establish rigorous procedures to protect customer data and provide streamlined services to their customers. This increases satisfaction among existing customers, draws in new ones, and helps the financial performance (Alvarez and Busenitz, 2001).

Furthermore, commercial banks' financial performance might benefit from a healthy client base and a positive brand image. Higher acceptance rates of e-banking services are likely to occur at banks that have created a favorable brand image, earned consumer trust, and have a substantial customer base (Olavarrieta and Ellinger, 1997). Financial results benefit from the subsequent rise in transaction volume, fee revenue, and client loyalty. All banks in Asian countries can improve their financial performance by capitalizing on their distinct assets and competencies in e-banking. Banks may increase their financial performance by increasing client happiness, trust, and loyalty via investments in technology infrastructure, competent human capital, and financial resources, creating a solid customer base and brand reputation (Kozlenkova et al., 2014).

The study uses these three theories to explain the flow between digital banking services, customer satisfaction, and loyalty. TAM is employed to capture the impact of perceived usefulness and ease of use on customers' adoption of e-banking services. This research builds

on the Diffusion of Innovations Theory (DOI) to explain the diffusion phenomenon of e-banking, focusing on factors such as the communication channels employed by the adoption process and the first observers. The Resource-Based View (RBV) assesses how and to what extent banks' resources, namely technology and human capital, support the effective implementation and acceptance of e-banking and increase customers and loyalty. In this case, these theories explain factors affecting customer behaviour in digital banking.

2.2. INTERNET BANKING, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY RELATIONSHIP

The study of Internet banking, customer satisfaction, and customer loyalty level is relevant in the modern environment. Internet banking increases the satisfaction level of customers as they can perform transactions at their convenience and at any time, thus making them stick to their bank and refer other people to do the same. A wide-ranging review of prior literature using the TAM revealed that perceived usefulness and ease of use directly predict e-banking adoption, thereby increasing customer loyalty. The DOl theory addresses this issue by providing information on when e-banking services are diffused, who adopts them as soon as possible, and how the communication channel strengthens loyalty. As the RBV theory has supported it, banks' technological tools and expertise employees are crucial in providing adequate, satisfactory digital services, which signal the strengthening of customer loyalty. This research incorporates these theories to gain insight into Customer Satisfaction and loyalty in Internet Banking.

Nochai and Nochai (2013) researched the significant aspects of Internet banking services influencing customer satisfaction. The study examined data from Bangkok Bank, Kasikorn Bank, and Siam Commercial Bank, Bangkok's three largest banks. Bouketir and Hassani (2017) explored to improve awareness of the many features of Internet banking and their impact on customer satisfaction in India. The analysis focused on the convergence of e-banking breakthroughs caused by demonetization. An exploratory survey of 194 Internet banking customers in New Delhi found that efficiency, system availability, satisfaction, privacy, contact, responsiveness, and contact account for 70% of overall customer satisfaction. The research adapted the e-service quality model to fit the needs of financial institutions. The premise that these attributes significantly impact customer satisfaction is

validated by empirical evidence. The research has improved our knowledge of the importance of many elements and their effects on customer satisfaction.

According to research by Alawamleh (2017), electronic communications and e-commerce have significantly impacted the banking industry. As a result, there are now elevated standards of service quality. Regardless, particularly in developing countries. This study investigates Jordanian consumers' viewpoints regarding e-banking through interviews and a quantitative questionnaire. It also provides definitions of e-banking terminology, functions, benefits, and drawbacks. According to the study, e-banking adoption positively affects Jordanian banks, customer satisfaction, and loyalty, and positive word-of-mouth—practical recommendations for expanding electronic financing in Jordan.

According to Bebli (2012), internet banking has significantly influenced the banking business in Sub-Saharan Africa, particularly in Ghana. However, empirical studies into customer happiness and service quality continue. The research employed the SERVQUAL and SERVPERF models to examine the relationship between Internet banking service quality and customer satisfaction in Ghana's banking industry. The data showed a positive relationship between speed of delivery, utility, reliability, joy, control, and privacy. Nasri (2013) researched Pakistan to investigate customer satisfaction using the SERVQUAL model and its link to different service quality factors. We sent questionnaires to 400 Karachi residents using Internet banking to collect their information. The results showed a robust positive association between assurance, tangibility, reliability, responsiveness, and customer satisfaction. The effect of empathy, however, was positive but negligible. The research suggested that to have greater customer confidence, internet bank management should prioritize elegant website design and content, bolster security and safety measures, and deliver dependable services.

Ariff et al. (2013) conducted a study examining the influence of e-satisfaction and e-SQ on e-loyalty in Internet banking. E-SQ for a commercial bank in Malaysia was determined utilizing a modified iteration of the E-SERVQUAL instrument. The responses to questionnaires were gathered from 265 users. The findings indicated that e-SQ comprises the following factors: assurance-fulfilment, efficiency-system availability, privacy, contact-responsiveness, website aesthetics, and guide. Positive effects of website designs and guides, system availability and efficiency, and contact responsiveness on e-satisfaction were

observed. The study discovered that e-satisfaction partially mediates the connection between website aesthetics and guides and consumer e-loyalty. This study emphasizes the significance of bank websites' information and aesthetic appeal in developing e-satisfaction and e-loyalty through providing high-quality e-SQ.

Kiragu (2017) conducted a descriptive survey investigating service quality metrics in Iranian Internet banking. Website design, responsiveness, security/privacy, reliability, and efficiency are the six pillars around which it bases its hybrid approach. The researcher collected data using a 5-point Likert scale questionnaire. According to the findings, website design is less associated with customer satisfaction than reliability. Assegaff (2016) underlined the need to understand the needs and expectations of Indonesian bank customers. According to a questionnaire of 115 Internet banking customers, the following factors have a significant impact on customer satisfaction: "Banking Services Product Quality," "Online Customer Service Quality," "Online Information Services Quality," and "Overall Internet Banking Services Quality." As a result, understanding how customers perceive online banking services in Indonesia is critical for improving them. According to Nazeri et al. (2019), the study explored how Internet banking services affected customer satisfaction at Refah Bank in Tehran. The researchers utilized PLS smart, a structural equation modeling program, to survey 400 customers. Eleven critical components of a successful electronic banking service lead to delighted customers, with performance being the most important one. The research emphasized the relevance of customer satisfaction in the development of electronic financial services as a way to obtain a competitive advantage.

Furthermore, Santouridis et al. (2009) investigated banking consumers' satisfaction with their Internet service. The SERVQUAL scale has six dimensions: ensuring information quality, responsiveness, web assistance, dependability, empathy, and assurance. According to a survey of Internet banking consumers in Greece, all quality characteristics are predictors of overall customer satisfaction, but dependability has the most significant impact. Prioritizing information quality for future usage is critical, and familiarization-related factors influence consumer recommendations. Another study examined whether e-satisfaction mediated the association between e-service quality and e-loyalty among Indonesian private bank clients (Sasono et al., 2021). The sample size was 205 people, all of whom needed to have an online bank account. The regression analysis was performed using the SEM method

and SmartPLS software. Based on the data, the quality of an online service directly influences customer satisfaction, resulting in increased customer loyalty. E-service quality influences e-loyalty, with e-satisfaction playing an important mediating role. This study emphasizes the relevance of e-satisfaction in the context of online banking.

Furthermore, Musiime and Ramadhan (2011) investigated the Ugandan banking sector to determine the factors influencing consumer acceptability and satisfaction with online banking. A five-point Likert scale questionnaire study found that Internet banking considerably boosted consumer satisfaction. The findings are comparable with those of Al-Hawaii and Ward (2005). The research argues for innovative means of promoting awareness through trade groups, shows, and new technologies and a stronger focus on individual clientele. Internet banking service providers should consider these factors to maximize consumer satisfaction.

2.3. MOBILE BANKING, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY RELATIONSHIP

This research seeks to establish the correlation between the use of mobile banking and customers' satisfaction and loyalty, especially in the financial sector; this is because mobile banking proves convenient to customers, increasing satisfaction and boosting loyalty. Mobile banking adoption and subsequent loyalty are essential by perceived usefulness and ease of use, as evidenced by research based on the Technology Acceptance Model (TAM). According to the Diffusion of Innovations Theory (DOI), different stages of adoption stress the early adopters and communication in enhancing loyalty. Resource View (RBV) has a robust technological base of a bank and a capable staff to supply satisfactory services that satisfy the clients, hence improving the level of loyalty. This research incorporates these theories to explain the antecedents of satisfaction and loyalty in mobile banking.

Biwott et al. (2019) evaluated the relationship between mobile banking consumers' experiences, satisfaction, goals to use, and brand loyalty. The essay emphasizes the utility, personalization, and delight of mobile applications. The technology adoption model, planned behavior theories, and marketing and service management principles are among the research approaches used. The empirical underpinning comes from a survey of consumers at ten different Turkish banks. The study revealed that user experience, particularly mobile banking app usability, significantly influenced customer satisfaction, intention to use, and brand

loyalty. Furthermore, the study found that customer satisfaction and desire to utilize mobile banking affect brand loyalty.

According to Bloom and Reenen (2013), this study used quantitative methods to analyze the influence of mobile banking services on customer satisfaction. A questionnaire was conducted with 100 people in Surakarta who utilize BTN's mobile banking services. The findings demonstrated that mobile banking has significant impact on the customer satisfaction. The F test determined that these variables led to happiness.

Rumaini et al. (2023) investigated the satisfaction ratings of Bank Aceh Syariah consumers in the Kuta Alam District with its mobile banking services. The results showed a favourable and statistically significant relationship between the quality of mobile banking services and customer satisfaction. According to the coefficient of determination, service quality explains the variation in customer satisfaction, whereas random variables account for the remaining. Ligiarta and Ruldeviyani (2022) discovered that the COVID-19 outbreak has enhanced rivalry among financial institutions. A study utilized Twitter sentiment analysis to evaluate customer satisfaction and guarantee it. The accuracy of the support vector machine model in predicting positive or negative sentiment was at its maximum. Brimo received the highest positive feedback, whereas Livin' by Mandiri and Brimo had issues with reliability. BCA Mobile should prioritize usability and responsiveness, whereas BNI Mobile should emphasize only responsiveness.

Ahmadi and Taha Narci (2022) investigated the Turkish banking industry to see if there is a link between the supply of mobile banking services and client happiness and loyalty. The study surveyed 400 participants from various universities. Mobile banking services favourably influence client retention. According to the study's findings, enhanced mobile banking services significantly drive customer satisfaction, generating both efficiency and contentment. The importance of mobile banking in attaining customer retention renders it an optimal facilitator of customer retention. Despite the moderate impact, this suggests that mobile banking is a particularly effective means of enhancing consumer retention.

Heidy et al. (2022) report that mobile banking has gained significant popularity as an electronic commerce medium utilized by financial institutions due to its capacity to enhance customer service and reduce expenses. This research examined the correlation between customer loyalty and service quality among FKG USAKTI and BNI mobile banking

professional students. According to an analysis of data involving 150 BNI M-banking customers, customer loyalty significantly influences customer satisfaction. On the other hand, user-friendliness and productivity largely determine customer satisfaction. Sharma et al. (2020) have shown that BSM integrates information technology into its mobile banking application to enhance consumer satisfaction. Productivity, in this respect, is defined as using the most efficient approach to delivering high-quality electronic services to investigate the link between e-service quality, customer loyalty, and satisfaction. Eighty-four users who had active accounts and logged in to BSM's mobile banking app three times later volunteered to participate in the survey. The results showed that mobile banking significantly and positively impacted customer satisfaction.

Fianto (2021) studied how qualitative aspects of mobile banking services could influence consumer satisfaction at Islamic banks in Indonesia. The study investigates the influence of security, design and application on customer satisfaction and concludes that they regulate the satisfaction of visitors in one way or another. It is outlined in the research that Islamic banks can present higher customer satisfaction with consideration of their mobile banking app systems. The scope of this study has been set to the five most famous Islamic institutions in Indonesia; the data generated from the respondents, however, shows some important implications that should be implemented to improve customer satisfaction and become a more efficient mobile banking service.

Yusfiarto (2021) looked into the influence of mobile banking quality on consumer loyalty in Islamic banking services. The study SEM online with 274 customers. The outcomes indicated that increased levels of service value result in heightened customer loyalty, in which system availability and efficiency play critical roles. Efficiency pertains to the smoothness and velocity of transactions, whereas system availability indicates the appropriate operation of the platform. Additionally, Parera and Susanti (2021) examined the impact of usability on consumer loyalty in mobile banking. From February to August 2020, a survey of 106 M-Banking customers revealed that simplicity of use increases customer satisfaction and bank loyalty. The study emphasizes that financial institutions must proficiently, securely, and conveniently provide technology-driven services, including Internet banking and M-banking. Particularly examining conventional banks in Jakarta Province, the study investigates the correlation between usability and consumer loyalty.

2.4. DEBIT CARDS, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY RELATIONSHIP

Due to the increased use of debit cards in the financial industry, it is essential to establish the correlation between debit cards, customer satisfaction, and loyalty. The advantages of debit cards include the ease and ability to access money as and when needed, resulting in increased satisfaction among the customers and, hence, loyalty. For example, the Technology Acceptance Model (TAM) picks perceived usefulness and ease of use for technology, and the Diffusion of Innovations Theory (DOI) identifies the place of early adopters and communication in users' loyalty. According to the Resource-Based View (RBV), a positive relationship is obtained from the capability of a bank's technology and experienced and efficient staff to deliver satisfactory and loyal services. Other emerging features that further enhance convenience and security are Contactless payment systems, security features, mobile integration and biometric authentication, which are also likely to enhance customer satisfaction levels and ultimate customer loyalty. Banks implementing these innovations and having reliable client service will observe more clients stick with them and recommend the bank.

The investigation conducted by Truong et al. (2020) examined user contentment with debit cards issued by commercial institutions in Vietnam. By employing a dataset comprising 428 consumers, the research revealed that product attributes and cost significantly impact the frequency of debit card usage. Nevertheless, the influence of each determinant varies significantly across distinct consumer segments. When using debit cards for in-store or online purchases, people who frequently use non-cash payments for high-value transactions or work for government agencies are less likely to let product prices and features affect their decisions.

According to the researcher Odhiambo et al. (2012), this study evaluates customer satisfaction with Myanmar Citizens Bank's debit card services. A sample of 150 customers was randomly selected from five branches in Yangon and interviewed using structured questionnaires. According to the study, the three most crucial considerations proven to be information quantity, usability simplicity, and the swiftness of transactions. Customers also found ATMs and MasterCard’s to be convenient and accurate.

Njoroge and Mugambi (2018) demonstrated that a famous bank from Bangladesh, Dutch Bangla Bank Limited (DBBL), has seen a remarkable increase in the use of customer debit cards. A sample of 239 customers from three different Sylhet city branches identified that they were significantly involved with transaction transparency, Point-of-Sell utility bill payment, and strengthening the links with the bank community. This indicates DBBL's dedication to its innovative and technological development in the banking systems.

As the researcher Foscht et al. (2010) stated, this study investigated the link between payment modes and customer satisfaction in the Austrian market. It studied the effect of debit cards on sales compared to credit cards and whether their relationship corresponds to loyalty and satisfaction. The research employs a questionnaire with a definite structure assigned to 360 bank customers, who were chosen using quota and systematic sampling. Five hypotheses, four of which are supported, and one more are partially supported. The results suggest that personal characteristics, payment method features, and expectations influence a person's preference for a payment method. Positive expectations, performance, and desires lead to customer satisfaction and a higher intent to use and recommend the payment method. This study addresses the need for more attention to the effects of payment modes on customer behaviour and satisfaction, highlighting the importance of understanding these factors.

According to the researcher Hayati et al. (2020), this article explored the relationship between micro banking image and customer satisfaction using a survey of 100 customers. The research reveals that company image positively influences customer satisfaction and loyalty, while customer relationships also positively influence these factors. However, customer satisfaction cannot mediate between micro-banking companies' image and customer relationships. The study suggests that enhancing consumer loyalty can be achieved by strengthening micro-banking companies' image, maintaining customer satisfaction, and enhancing consumer relations. This is vital as micro-enterprises strength relies on building an image and proximity to consumers, especially in the face of limited advertising resources.

Parvin and Hossain (2010), demonstrated that banks offer various services, including deposit products and loan products, including debit cards. These cards provide 24-hour banking access, but customers may need help with issues like the non-availability of Taka, network problems, and a lack of desired value-denominated notes. This research reveals that, on average, Bangladeshi debit card users are satisfied with their ATM booth availability,

while they are less satisfied with network service. To improve satisfaction, banks should improve network service, provide receipts after transactions, and promptly resolve problems to ensure full satisfaction for their debit card users. According to the researcher Simiyu et al. (2012), customer satisfaction in marketing research was conducted using primary data from 600 respondents in Chennai. The data was collected through a structured questionnaire. The study found that most respondents were male, aged 31–40, and had professional education. The study also found significant differences between demographic variables and the most selected satisfaction factors. The results indicate that customer satisfaction can vary depending on various factors and demographics.

According to the study Helfasari et al. (2021), a system is developed to determine customer satisfaction with a merchant based on chargeback transaction data in a database. This system indicates satisfaction by comparing the number of chargeback transactions with the total number of transactions not involving chargebacks. This comparison can be made over time, from a month to a year. The data is collected automatically, allowing for comparisons to other businesses and decision-making on improving performance for the merchant and which merchant to choose for consumer purchases.

2.5. ATM, CS AND CUSTOMER LOYALTY

A study on the impact of ATMs on CS and CL is crucial mainly because the operations of banks rely heavily on both factors. They contribute to CS since the customers receive the required banking products and services without having to visit any branch physically. The positive ATM experience enhances the CS, hence the augmented CL, since the customers are likely to remain loyal to their bank and recommend it. Research that incorporates the TAM has found that only perceived usefulness and perceived ease of use of ATMs influence CS and CL. According to the diffusion of innovation theory (DOI), ATM adoption diffusion focuses on early adopters and communication methods. The Resource-Based View (RBV) also focuses on the ability of a bank’s technology and highly skilled staff to offer quality ATM services that improve both CS and CL. Thus, the synthesis of these theories increases understanding of the factors that may affect CS and CL through the use of ATM.

Chandra's (2022) research investigated the determinants that impact CL, satisfaction, and the quality of ATM services within the banking industry of Bangladesh. The evaluation

centers on seven service quality dimensions: effectiveness, tangibility, reliability, responsiveness, empathy, assurance, and access. The findings indicate that the service above the quality dimensions substantially and favourably impacts customer loyalty. Research shows that these dimensions play a vital role in ensuring customer satisfaction in Bangladesh's private banking market.

Manjushrees (2020) research highlighted that an increase in ATMs made the banking system more automated, making the relationship between companies and their customers more demanding. The Self-Service device can be helpful by providing a set of benefits to the customers, improved efficiency, lower transaction costs, as well as convenience at the same time. Moreover, such services enable clients to use their precious resources efficiently, saving time, money, and effort. In research that showed a close connection between demographical variables and twenty-five ATM selections of the customers in a specified branch, fifty consumers from a local bank in Bhadravati participated. Data were collected using the structured questionnaire; percentage calculations were performed along with chi-square tests for data analysis.

Besides, the research conducted by Ansebo and Gaywala (2022) was aimed at establishing the connection of the service quality components to customers' expectations and measuring satisfaction among customers of electronic banks to improve customer satisfaction. Seven factors are considered in the research: availability, antithesis/efficiency, reaction time, reliability, applicability, victual and security, and cycle. Overall, people 371 consumers were involved. The Maynard Miner Company’s research revealed that the entire service quality components significantly impacted the satisfaction of electronic banking customers. There was a substantial gap between the perception of e-banking and the actual features perceived by the users, and therefore, proposals were written up based on the generated outcome. The research underlines the necessity of focusing on what financial institutions provide and how that improves the living standards of society.

The study by the researcher Joshi et al. (2019) intends to find whether ATM service quality influences customer satisfaction within the Nepalese financial sector. A survey of 60 individuals was utilized to collect data, and measures of central tendency descriptive statistics were applied to explain satisfaction levels. The idea was tested by the use of correlations as well as using multiple linear regression analyses. According to the data collected, it indicated

that ATM services help enhance customer satisfaction. It is noticeable that elegant banking operations can also increase customer satisfaction. A recipient of the research concludes that the cash supply was the factor that influenced most, followed by the ATM location.

Based on Elifneh et al. (2020), banks have used several service channels, such as the Internet, SMS banking, and ATMs. This study used the SERVPERF model to measure consumer satisfaction with ATM service delivery at the Commercial Bank of Ethiopia. The purpose of our study was twofold - first, to explore the relationship between SERVPERF dimensions and operating ATMs and second, to appraise how the customers respond to the quality of service at ATMs. Aggregating the data, every service quality dimension appeared positively associated with general contentment. Notable predictors included tangibility, dependability, responsiveness, empathy, and assurance, with assurance exhibiting the most significant impact. As a precaution against losing customers, the researchers advise enhancing service quality.

The factors influencing consumer contentment with automated teller machines were also examined in the study by Tewodros and Debela (2019). Out of 186 participants, 56% identified time savings as the primary motivation for utilizing ATM services. Most clients who withdraw funds via ATM banking are pleased with the services rendered. Customers require assistance with challenges, including unreliable networks, restricted withdrawal amounts, diminished balances resulting from non-cash transactions, bank fees, cash-out devices, card obstructions, and queueing. According to the study, responsiveness, efficiency, appearance, dependability, and convenience significantly impact consumer satisfaction.

Aslam et al. (2019) also studied the impact of ATM service quality on customer satisfaction and loyalty in Karachi, Pakistan. Information was gathered from 372 users via a structured questionnaire. According to the findings, compliance, dependability, usability, protection, and confidentiality emerge as the primary facets of ATM service quality. Customer satisfaction is positively correlated with responsiveness and convenience. Customer satisfaction has a significant impact on customer loyalty. The research proposes approaches that bank administrators can implement to enhance the quality of ATM services.

Vennila and Rathnaraj (2018) demonstrate that ATMs are a prevalent banking delivery channel because they enable consumers to conduct banking transactions at any time and in any location. They increase efficiency, decrease transaction costs, and enhance precision,

velocity, and customer contentment. This study investigates the various aspects of ATM service quality and its influence on customer satisfaction, focusing on achieving or meeting customer expectations. Alexis and Chen (2019) proposed that automated teller machines (ATMs) are transforming into strategic technology within the financial industry, providing institutions that invest in ATM technology with competitive advantages. As a result of the transition from cash-based to card-based systems in Rwanda, consumer satisfaction requires an improvement in ATM service quality. The correlation between customer satisfaction and ATM service quality was examined in a structured questionnaire administered to 250 ATM users affiliated with five commercial banks in Kigali. Seventy percent of respondents were under 35, and seventy percent required instruction on ATM operation. Customer satisfaction was significantly correlated with the seven dimensions of ATM service quality. The most significant dimensions were ease of use, convenience, empathy, and tangibles. Therefore, financial institutions should prioritize enhancing automated teller machine banking services and educating consumers on ATM usage.

Moreover, the present investigation conducted by Indrayani et al. (2019) examined the correlation between customer loyalty and satisfaction at PT. Bank Mandiri Tbk in Batam, Indonesia. The information gathered via questionnaires was analyzed utilizing SPSS and SEM. One hundred eighty-eight customers participated in the study, which found that service quality, Internet banking, and ATM usage contributed 84% to customer satisfaction. Based on the research findings, service quality emerges as the most important determinant of customer loyalty and satisfaction. Internet banking, ATM usage, and service quality are the most consequential determinants.

2.6. CUSTOMER SATISFACTION (CS) AND CUSTOMER LOYALTY (CL) RELATIONSHIP

To increase the level of CL in the banking sector, the use of effective customer services, the application of modern information technology such as the use of Android mobile applications and artificial intelligence and the department of loyalty programs should be encouraged. While dealing with customers, paying attention to a customer-oriented approach, good communication, and strong relations is essential. Besides, raising the employee's qualifications, improving security, using big data to offer customized services, and increasing financial literacy can also augment the CS and CL. Based on the theoretical

framework of TAM, DOI, and RBV, the strategies constitute an overall solution to enhance CS and strengthen CL. According to researcher Sciascia (2023), the study examined the relationship between customer satisfaction and loyalty using a logistic regression model and a market segmentation model based on latent class analysis. The survey results allowed for assessing the efficacy of belonging to various social classes, including philanthropic and self-actualization values, thereby enhancing the organization's competitiveness.

In the context of the twenty-first global competitive environment, Mishra (2022) argued that this study examined the connection between customer satisfaction and loyalty. The study discovered, through the use of convenience sampling and 275 customers from various banks in Biratnagar, that corporate communication firmly mediates the relationship between customer satisfaction and loyalty, which is significantly correlated with the former. Additionally, the results demonstrated that corporate communication influences consumer loyalty directly and positively. Theoretical implications of this study lie in its contribution to the understanding of the correlation between customer satisfaction and loyalty; it emphasizes the significance of comprehending the mediation role of corporate communication in developing such loyalty.

Costa and Antunes (2023) established that in order to sustain profitability in a volatile and competitive market, brands must cultivate favourable customer relationships. The objective of this research is to examine the pre-satisfaction and brand loyalty determinants of personal hygiene products in the Portuguese market. A literature review Utilized were, and an online questionnaire generated 608 genuine responses. Three factors influenced satisfaction, and a strong, positive correlation was found between satisfaction and loyalty, according to the findings.

According to the research done by Lin and Wang (2006), the study investigated the influence of perceived value and quality on customer satisfaction and loyalty. The study involved 132 automotive components the findings indicated that the positive relationship between CS and CL. According to Daulay (2022), the pandemic has had a massive effect on the transport sector, and many businesses are under pressure to win and keep their customers. Information on the results of a research study based on 85 people who have used the online taxi transportation service in Medan for at least two years, where data was collected and evaluated through an online survey for accuracy and dependability. Based on the results, it

is clear that customer satisfaction and relationship management affect customer loyalty, especially in online taxi transport.

2.7. CONCEPTUAL FRAMEWORK

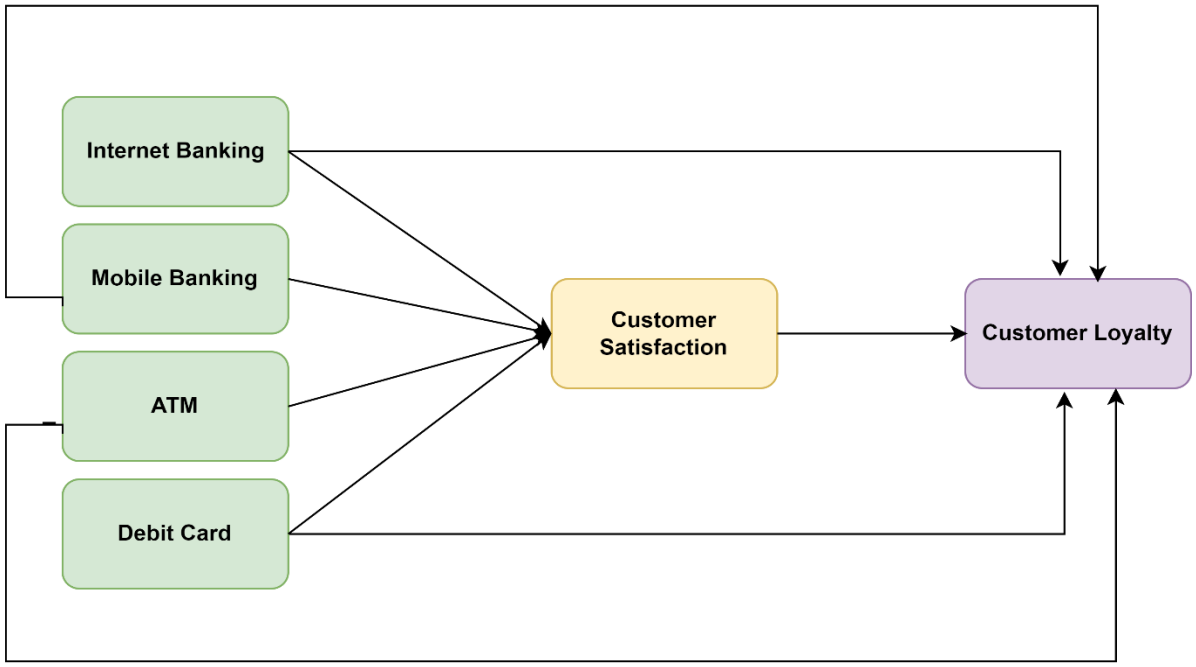

Figure 1: Conceptual Framework

3. METHODOLOGY

The research approaches employed in this study will be discussed in detail below. The methods for collecting and analyzing data and the study's overall methodology and design are described. This chapter's components include introductory material, research design, sample, and population, sampling processes, data gathering tool, data collection procedure, and statistical methods for hypothesis testing.

3.1. RESEARCH PURPOSE

The primary objective is to investigate the impact of Internet banking, M-banking, debit cards and ATMs on CL. Furthermore, explored the mediating effect of CS between Internet banking, M-banking, credit cards ATMs, and CL. This study is descriptive research, the method preferred to analyze the hypotheses and assess the empirical association between independent variable (Internet banking M-banking, Debit cards and ATMs) and dependent variable CL; and mediating role of CS. This study examines Afghans interested in digital financial services in Kabul, Herat and Kandahar cities using five-point Likert scale questionnaire. The research aims to educate Afghans about the importance of digital banking products and services, as most are unaware of online banking, thus improving their understanding of its usage.

3.2. RESEARCH HYPOTHESIS

H1: Internet Banking has a significant influence on customer satisfaction (CS).

H2: Internet Banking has a significant influence on customer loyalty (CL).

H3: M-Banking has a significant influence on customer satisfaction (CS).

H4: M-Banking has a significant influence on customer loyalty (CL).

H5: Debit Card has a significant influence on customer satisfaction (CS).

H6: Debit Card has a significant influence on customer loyalty (CL).

H7: ATM has a significant influence on customer satisfaction (CS).

H8: ATM has a significant influence on customer loyalty (CL).

H9: CS has a significant influence on CL

H10: CS mediates the relationship between Internet banking and CL.

H11: CS mediates the relationship between M-Banking and CL.

H12: CS mediates the relationship between Debit Card and CL.

H13: CS mediates the relationship between ATM and CL.

3.3. RESEARCH METHOD

The present study reviewed the relevant literature to develop a study framework. The dependent variable is customer loyalty, whereas the model examines the association internet banking M-banking, debit card, and ATMs as independent variables. The mediating effect of CS between internet banking, M-banking, debit card, and ATMs and CL have examined. The primary aim of this quantitative study is to examine the influence of Internet banking, mobile banking, debit cards, and ATMs on customer loyalty. Additionally, customer satisfaction mediates the relationship between CL and ATMs, credit cards, mobile banking, and Internet banking. Descriptive research was used in this study to examine the hypotheses and determine the empirical correlation between the dependent variable (customer loyalty) and the independent variables (Internet banking, mobile banking, credit cards, and ATMs). CS's mediating function has been investigated. This study examined and investigated the variables and relationships of the population using PLS-SEM and other statistical techniques (Awang, 2012; Sekaran, 2007; Hair et al., 2012). According to Sekaran 2007, descriptive research typically uses statistical metrics to display data, such as percentages, averages, and frequencies. This method is beneficial for initial explorations of a geographical area. The study uses descriptive methods to describe the data the respondents provided, emphasizing factors at a certain point in time.

3.4. UNIVERSE AND SAMPLE

This research focuses on Afghans who are interested in obtaining digital financial services. However, the sampling frame refers to Afghanistan's Kabul, Herat, and Kandahar cities. This research likewise use a five-point Likert scale survey to get feedback from digital

banking product users. Afghanistan's customers were hand-picked because most Afghans are unaware of online banking. In this manner, they will understand the importance of digital banking products and services and how to use online banking. This study will look at a community of persons interested in digital financial services who live in Kabul, Herat, and Kandahar. In quantitative research, sampling is a technique for examining a subset of a larger population to derive conclusions about the total. Krejcie and Morgan (1970) established the principles for selecting a sample size, and this study's sample should consist of 270 people from three cities in Afghanistan who have used digital banking to obtain financial products and services. Cavanna et al. (2001) discovered that when researchers adhere to sampling standards, they may effectively represent the target population's characteristics since the guidelines consider confidence and accuracy variables while determining the proper sample size. We employed a basic random sampling strategy in the experiment. This study's sampling approach had a reasonable chance of selection every member of the population. Sekaran and Bougie (2016) argue that researchers who utilize simple random sampling to select online customers are not biased because they do not prefer any one consumer category.

3.5. PILOT STUDY

After adapting the modified version of instrument in the research design the next stage is refinement of the instrument's questions. A pilot study is generally employed before the main survey in data collection process. Usually, the pilot study is used to validate the instrument and check its reliability to bring improvement (Zikmund, 2003). The basic purpose of pilot study is to eliminate possible flaws and weakness in the instrument. Regarding this, it is identified questions wording, sentence composition, sequence, structure, understanding level of respondent, response percentage, completion time and analysis process. According to Luck and Rubin (1987) recommended that the sample for the pilot study is generally 10 to 50 respondents of the target population. The result of pilot study was presented in next chapter.

3.6. Data Collection Tools

In keeping with the study's assumptions and objectives, the questionnaire's ability to elicit important information and responses makes it an appropriate data collection method (Kumar et al., 2013). Many researchers agreed that questionnaires were the most efficient

and user-friendly technique to collect data (Cavana et al., 2001; Kumar et al., 2013; Zikmund et al., 2010; Hair et al., 2012). That is why we employ a self-administered questionnaire to collect data. The researchers utilized this strategy by distributing surveys to participants using the email addresses they provided. The next stage is to contact the chosen individuals via relevant methods, such as email, phone, and others. We chose this strategy since our sample includes locations beyond Afghanistan's principal cities of Kabul, Herat, and Kandahar. Three cities, Kabul, Herat, and Kandahar, were selected because of their importance in Afghanistan's socio-economic context. Kabul: As the capital of Afghanistan, Kabul is the political and economic centre of the country. Herat and Kandahar emphasize industrial agricultural dependence on urban markets and regional security concerns. These cities give a general picture of Afghanistan's economic situation with different patterns. According to Awang (2012), self-administered surveys have several potential advantages, including being quick, inexpensive, free of interviewer bias, and giving respondents the privacy and anonymity required to be honest. The researchers designed and constructed the questionnaire using five-point Likert scale (strongly disagree, disagree, neither agree or disagree, agree and strongly agree) to assess each item (Cavana et al., 2001; Kumar et al., 2013). The purpose of this method was to enable respondents to express their thoughts and feelings more clearly in response to each question.

The present study used a five-point Likert scale to assess the importance of each notion. The entire scale's base is built on widely recognized and previously used measurements. The original English version underwent several modifications. Based on their previous work, (Ullah, 2021) chose a five-item test to assess customer loyalty. The present study used the (Reddy and Megharaja, 2024) scale to determine customer satisfaction. The present study used questions from (Tripathi et al., 2022) to assess mobile banking. The present study employed the items from (Pandey et al., 2015) to measure the internet banking and used the ATM measurements from (Idris, 2014). Furthermore, the study used questions from (Mynuddin, 2016) to assess debit card.

We analyzed the respondents' profiles using SPSS version 23. We used SPSS, or the Statistical Package for the Social Sciences, to examine the respondent profile. We had already determined that the app's primary function was to compute a statistical metric for our study. According to Sekaran (2007), several steps must be taken before beginning data analysis,

including screening the data, classifying it, and selecting the appropriate data analysis approach. Consistent and correct classification of raw data is crucial for ensuring that statistical analysis is compelling.

Furthermore, we addressed any worries about data intake by developing a robust screening mechanism. Performing descriptive statistics on the variables is critical for effective data filtering. Analysis occurs after data selection for assessment. The current study's data analysis applied Smart PLS, standard software for PLS-SEM (Hair et al., 2014), a structural equation modeling technique. Sarstedt et al. (2014) claim that using PLS is helpful because it allows the combining of numerous characteristics of the model, increasing the flexibility of the analysis and interpretation of this approach.

The previous statement is the fundamental objective of the approach. Partial Least Squares Structural Equation Modeling is a widely used technique for model formulation and estimation owing to its inherent flexibility. Organizations have begun utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) to overcome long-term sustainability obstacles (Hair et al., 2012). Hair et al. (2012) proposed that PLS-SEM approaches should be utilized to optimize structured equation modelling with limited sample sizes. This investigation was concerned with four mixed interactions.

PLS-SEM techniques have effectively addressed identification challenges in formative and reflective assessment models involving single-item constructs. It could, therefore, be implemented in a variety of educational contexts. The utilization of Partial Least Squares Structural Equation Modeling (PLS-SEM) has been shown in numerous studies to enhance the statistical efficacy of parameter estimation. Hair et al. (2014) stated that the likelihood of identifying a correlation using Partial Least Squares Structural Equation Modeling (PLS-SEM) increases with a direct and statistically significant relationship spanning the entire population. This research employed the PLS-SEM methodology. The official website of PLS-SEM provides comprehensive usage instructions and convenient application access, which are factors in its designation as the preferred methodology.

In addition, the active PLS-SEM user community offers helpful resources for understanding the methodology. This investigation assessed the research model using variance-based structural equation modelling (SEM), as described by Hair et al. (2014). This approach is optimal when evaluating the predictive model using multi-item components.

4. FINDINGS OF THE RESEARCH

4.1. PILOT STUDY

Previously, the present study emphasizes the significant of pilot study and highlighted the indispensable procedure for adapting reliable and valid instrument for main survey study. For this purpose of pilot study 50 surveys conducted and data collected for preliminary analysis. The pilot study main objective to access the significant requirement during purification like questions wording, sentence composition, sequence, structure, understanding level of respondent, response percentage, completion time and analysis process (Ticehurst & Veal, 2005). Furthermore, the basic purpose of pilot study is to examined the validity and reliability of the instruments and ensure that the instruction, wording of question and scale of instrument were clear to understand (Zikmud, 2000; Sekaran, 2000).

Table 4.1 demonstrates the finding of reliability and validity. A reliability and validity analysis aims to determine whether the research scale items are valid and reliable. The researchers used the PLS approach to show validity. Henseler et al. (2014) and Hair et al. (2007) 0.80 for Cronbach's alpha (CA), and 0.70 for composite reliability (CR) and average variance extracted is not less than 0.50. The finding of the pilot study identified that Cronbach's alpha (CA) values for all variables are greater than 0.80, composite reliability (CR) values of all constructs are greater than 0.70 and average variance extracted (AVE) of all constructs also greater than 0.50. Further, HTMT techniques employed to determine discriminant validity of the instrument. Thus, the finding of the pilot study indicates that all value of HTMT is less than 0.90. Therefore, present study provide evidence that the instrument of is valid and reliable.

Table 4.1: Results of Pilot Study (Validity and Reliability of instrument)

Construct	Items	Factor Loading	CA	CR	AVE
Internet Banking	(1) Internet banking is compatible with my banking needs.	0.757	0.791	0.732	0.559
	(2) Internet banking is easy to use.	0.612			

	(3) Internet banking is compatible with my life style.	0.853			
	(4) Using Internet banking is a sign of modernity.	0.741			
Mobile Banking	(1) I think using mobile banking saves my time.	0.867	0.731	0.798	0.591
	(2) I can carry out my banking operations easily using mobile banking.	0.905			
	(3) I trust the network connectivity while doing a transaction using mobile banking.	0.558			
	(4) I used mobile banking because of its 24/7availability.	0.864			
Debit Card	(1) Convenience for paying big bill.	0.575	0.796	0.867	0.698
	(2) Delay of payment.	0.900			
	(3) Easy to use.	0.922			
	(4) Easy to carry.	0.880			
ATM	(1) I find using the ATM very simple.	0.915	0.895	0.898	0.736
	(2) I prefer using ATM for my utility payments	0.930			
	(3) I use other banks ATM with my bank ATM card easily	0.916			
	(4) I access many ATM point at a very close distance.	0.945			
Customer Satisfaction	(1) E-banking Service of the bank is easy to use.	0.856	0.816	0.808	0.501
	(2) Website of the bank is properly designed.	0.443			
	(3) Speed to login and logout of the bank website is fast.	0.884			
	(4) The bank's website provides all details of products and services.	0.596			
Customer Loyalty	(1) I regularly visit this bank.	0.824	0.801	0.825	0.644
	(2) Will you recommend your bank to your friends and your family members?	0.841			

	(3) The E-banking service provided by your bank is one of the reasons for customer loyalty?	0.882
	(4) Are you loyal to your bank?	0.524
	(5) I use this bank each time I need to make any financial transaction.	0.829

Table 4.2: Finding of Pilot study's Validity (HTMT)

	ATM	CL	CS	DC	IB	MB
ATM						
CL	0.719					
CS	0.642	0.721				
DC	0.587	0.529	0.774			
IB	0.738	0.640	0.753	0.682		
MB	0.584	0.702	0.809	0.741	0.678	

4.2. MAIN SURVEY ANALYSIS

4.2.1. Findings related to Demographics Variables

A descriptive analysis helped to understand the characteristics of the survey respondents better. The sample included 77.78% men and 22.22% women. In total, 270 individuals participated. The following is a breakdown of the respondents' ages: 27.03% were between the ages of 21 and 30, 37.41% between 31 and 40, 24.81% between 41 and 50, and 10.74% between 51 and 60. Most respondents (42.59%) had bachelor's degrees, with 40.37% holding a master's degree, 13.33% holding a master's of philosophy (M.Phil.), and only 3.70%of individuals who took part held doctorates (Ph.D.). Table 4.3 below provides specifics on all respondent data.

Table 4.3: Respondent data

Variable		Frequency	Percentage
Sex	Male	210	77.78%
	Female	60	22.22%
Age	21-30	73	27.03%
	31-40	101	37.41%
	41-50	67	24.81%
	51-60	29	10.74%
Education			
	Bachelors	115	42.59%
	Master	109	40.37%
	M.Phil.	36	13.33%
	PhD	10	3.70%

4.3. FINDINGS RELATED TO FACTORS

4.3.1. Convergent Reliability and Validity

Table 4.4 displays the outcomes of the convergent validity and reliability assessments. A convergent validity and reliability analysis aims to determine whether the research scale items are valid and reliable. The researchers used the PLS approach to show convergent validity. Henseler et al. (2014) and Hair et al. (2007) determined that the minimum criteria are factor loadings of 0.60, Cronbach's alpha of 0.70, composite reliability of 0.70, and average variance extracted of 0.70. Cronbach alpha values for all variables in Table 4.4 are greater than 0.80. All of the structures studied had factor loadings greater than 0.60. These variables have critical (CR) or average (AVE) values that are more than 0.50. Therefore, the current study shows convergent reliability and validity.

Table 4.4: Results of Convergent Reliability and validity

Constructs	Items	Factors Loading	Cronbach's alpha	Composite reliability	(AVE)
Customer Loyalty	CL1	0.836	0.856	0.887	0.644
	CL2	0.853			
	CL3	0.894			
	CL4	0.536			
	CL5	0.841			
Automated Teller Machine	ATM1	0.927	0.955	0.956	0.881
	ATM2	0.942			

	ATM3	0.928			
	ATM4	0.957			
Customer Satisfaction	CS1	0.868	0.706	0.834	0.533
	CS2	0.455			
	CS3	0.896			
	CS4	0.608			
Debit Card	DC1	0.587	0.856	0.907	0.711
	DC2	0.912			
	DC3	0.934			
	DC4	0.892			
Internet Banking	IB1	0.769	0.746	0.751	0.574
	IB2	0.624			
	IB3	0.865			
	IB4	0.753			
Mobile Banking	MB1	0.879	0.831	0.874	0.676
	MB2	0.917			
	MB3	0.570			
	MB4	0.876			

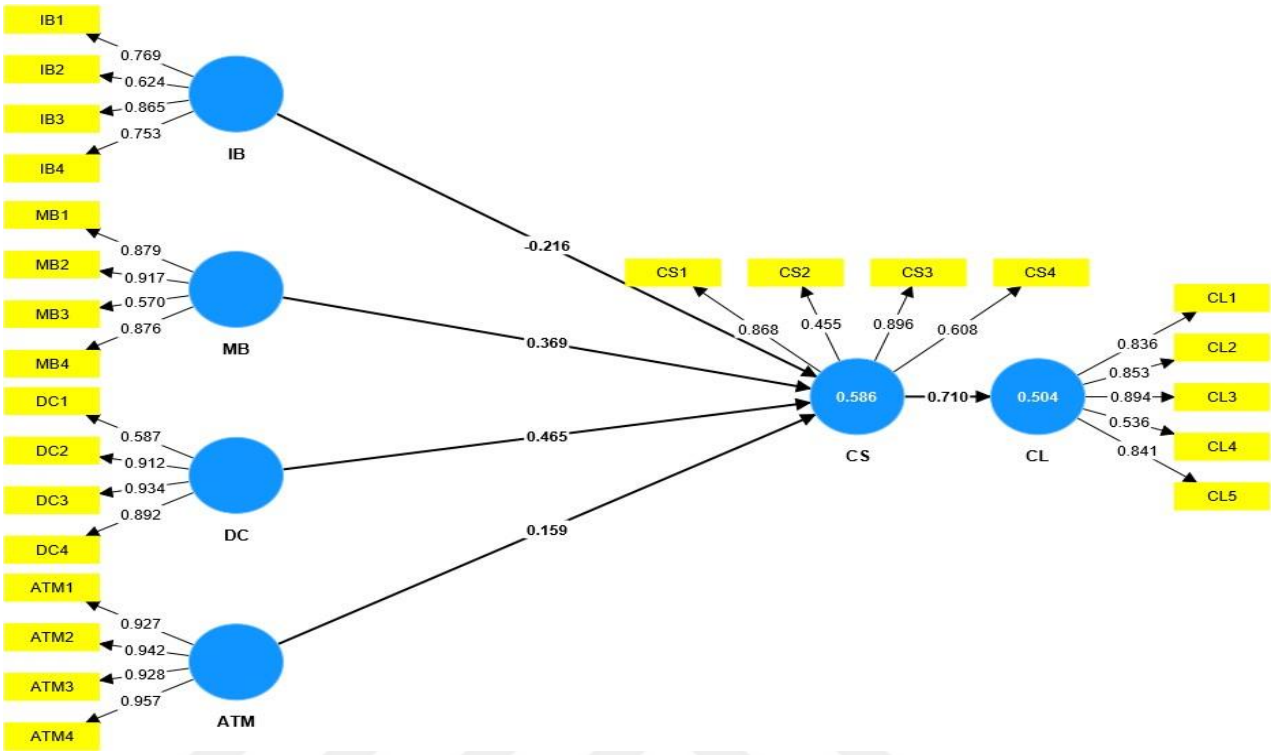

Figure 2: Measurement of Model

4.4. DISCRIMINANT VALIDITY

This study investigates the discriminant validity of scale items to establish a causal relationship between theoretical variables. To test the research's discriminant validity, we employed the HTMT, Fornell-Larcker criteria, and cross-loading procedures provided by Hair Jr. et al. (2020).

4.4.1. Heterotrait-monotrait Ratio (HTMT)

Assess the discriminant validity of the study using Gold et al.'s (2001) methodology and the HTMT technique. According to Gold et al. (2001), the values of HTMT should be less than 0.90. The discriminant validity of the scale items is low when their values are less than 0.90, as shown in Table 4.5. The hypothesis is tested using scales proven to be discriminantly valid.

Table 4.5: Results of HTMT

	ATM	CL	CS	DC	IB	MB

ATM						
CL	0.864					
CS	0.787	0.820				
DC	0.732	0.628	0.851			
IB	0.883	0.739	0.830	0.747		
MB	0.729	0.801	0.886	0.806	0.729	

4.4.2. Fornell-Larcker Criterion

Furthermore, the current research investigates the discriminant validity of the constructs to evaluate if the measuring model is still viable over time. Table 4.6 shows the findings obtained by applying the Fornell-Larcker criteria to the constructs. The data suggest that the requirements underwent discriminant testing. The research results verified the component's discriminant validity.

Table 4.6: Results of Fornell-Lacker Criterian

	ATM	**CL**	**CS**	**DC**	**IB**	**MB**
ATM	0.838					
CL	0.878	0.802				
CS	0.717	0.710	0.730			
DC	0.857	0.880	0.736	0.843		
IB	0.830	0.862	0.627	0.825	0.758	
MB	0.818	0.743	0.718	0.848	0.886	0.822

4.4.3. Cross Loading

Cross-loading refers to an item in a factor analysis loading significantly on multiple factors, potentially undermining the validity of the construct. According to Hair et al. (2012), cross-loadings can complicate the interpretation of factors and suggest that an item may not uniquely represent a single construct. To address cross-loading, items with high cross-loadings (usually above 0.4 on more than one factor) are typically revised or removed to improve the clarity and validity of the constructs. Zikmund (2000) also emphasizes the

importance of ensuring that each item loads highly on its intended factor and minimally on others to maintain construct validity. Furthermore, table 4.7 demonstrates the finding of cross-loading for the construct. Therefore, the findings indicate that the scale items of the constructs in the research model have been diligently validated.

Table 4.7: Results of Cross Loading

	ATM	CL	CS	DC	IB	MB
ATM1	0.927	0.863	0.676	0.763	0.869	0.917
ATM2	0.942	0.787	0.711	0.808	0.723	0.837
ATM3	0.928	0.776	0.639	0.846	0.748	0.801
ATM4	0.957	0.870	0.663	0.804	0.778	0.889
CL1	0.711	0.836	0.576	0.734	0.762	0.800
CL2	0.818	0.853	0.645	0.678	0.785	0.866
CL3	0.793	0.894	0.646	0.830	0.821	0.857
CL4	0.463	0.536	0.332	0.510	0.414	0.410
CL5	0.680	0.841	0.587	0.755	0.601	0.753
CS1	0.695	0.731	0.868	0.788	0.558	0.670
CS2	0.288	0.304	0.455	0.222	0.339	0.438
CS3	0.662	0.570	0.896	0.575	0.537	0.622
CS4	0.241	0.285	0.608	0.348	0.337	0.235
DC1	0.440	0.439	0.399	0.587	0.599	0.408
DC2	0.769	0.855	0.594	0.912	0.837	0.830
DC3	0.789	0.760	0.656	0.934	0.709	0.769
DC4	0.817	0.839	0.762	0.892	0.663	0.778
IB1	0.729	0.736	0.458	0.574	0.769	0.810
IB2	0.480	0.448	0.430	0.641	0.624	0.455
IB3	0.691	0.693	0.441	0.556	0.865	0.752
IB4	0.602	0.700	0.544	0.701	0.753	0.649
MB1	0.805	0.888	0.655	0.836	0.724	0.879
MB2	0.927	0.863	0.676	0.763	0.869	0.917
MB3	0.387	0.405	0.388	0.317	0.391	0.570
MB4	0.797	0.851	0.596	0.768	0.849	0.876

4.5. MULTICOLLINEARITY

Table 4.8 demonstrates the finding of VIF values and shows no multicollinearity issue in this research model. Thus, all the VIF values are less than 5.

Table 4.8: Results of Multicollinearity (VIF)

	VIF	1/VIF
ATM1	2.941	0.340
ATM2	2.109	0.474
ATM3	3.662	0.273
ATM4	3.195	0.313
CL1	2.310	0.433
CL2	2.986	0.335
CL3	3.576	0.280
CL4	1.294	0.773
CL5	2.438	0.410
CS1	1.888	0.530
CS2	1.120	0.893
CS3	2.385	0.419
CS4	1.428	0.700
DC1	1.260	0.794
DC2	3.505	0.285
DC3	3.536	0.283
DC4	2.603	0.384
IB1	1.933	0.517
IB2	1.191	0.840
IB3	2.644	0.378
IB4	1.653	0.605
MB1	2.628	0.381
MB2	3.157	0.317
MB3	1.231	0.812
MB4	2.454	0.407
Average Value of VIF	2.365	

4.6. DIRECT RELATIONSHIP

Table 4.9 displays the findings of the direct path by utilization of the SEM model. There is a negative and significant relationship between internet banking and CS. Thus, according

to findings (coefficient = -0.216, t=2.651, and P= 0.008). The first hypothesis has been accepted at 1% significance level, and the finding of the c current study is aligned with prior studies (alawamleh, 2017; Bebli, 2012; Sasono et al., 2021). Furthermore, IB and CL have a positive and significant relationship; thus, according to the results (coefficient = 0.185, t= 2.56, and p= 0.003), the second hypothesis has been accepted at 1% significance level, and current study's aligned with prior studies (Nazeri et al., 2019; Nochai & Nochai, 2013; Santouridis et al., 2009).

There is positive and significant relationship between MB and CS. Thus, according to findings (coefficient = 0.369, t= 2.320, and p= 0.020), the third hypothesis has been accepted at a 5% significance level, and the current study's results aligned with prior studies (Karoubi et al., 2015; Nasri, 2013; Sakhaei et al., 2014). Moreover, there is positive and significant relationship between M-banking and CL. Thus, according to the results (coefficient = 0.492, t= 3.844, and p= 0.000), the fourth hypothesis has been accepted at a 1% significance level, and the current study's finding is aligned with prior studies (Ariff et al., 2013; Assegaff, 2016; Bouketir & Hassani, 2017).

Furthermore, the debit card has a positive and significant relationship with CS. Thus, according to the results (coefficient = 0.465, t-value = 7.712, and p-value = 0.000), the fifth hypothesis has been accepted at a 1% significance level, and the present study's findings is aligned with prior studies (Aduda & Kingoo, 2012; Irshad et al., 2021; Njoroge & Mugambi, 2018). Moreover, there is positive and significant relationship between debit card and CL. Thus, according to results (coefficient = 0.138, t= 2.023, and p= 0.021), the sixth hypothesis has been accepted at a 1% significance level, and the current study's finding is aligned with prior studies (Foscht et al., 2010; Hayati et al., 2020; The et al., 2023).

In addition, there is an insignificant relationship between ATMs and CS. Thus, according to the results (coefficient = 0.59, t= 1.586, and p= 0.113), the seventh hypothesis has been rejected, and the present study's results is aligned with prior studies (C.A., 2014; Ireri & Kimutai, 2020; Mohamed Abdullai, 2017). Moreover, there is a positive and significant relationship between ATMs and customer loyalty. Thus, according to the results (coefficient = 0.239, t= 4.858, and p= 0.000), the eighth hypothesis has been accepted at a 1% significance level, and the current study's finding is aligned with prior studies (Auwal Musa, 2014; Hassan, 2013; Sreekanth & Kiran, 2022). Lastly, there is a positive and

significant relationship between customer satisfaction and loyalty. Thus, according to the results (coefficient = 0.710, t-= 3.074, and p= 0.000), the ninth hypothesis has been accepted at a 1% significance level, and the current study's finding is aligned with prior studies (Ahmadi & Taha Narci, 2022; Parera & Susanti, 2021; Yusfiarto, 2021).

Table 4.9: Results of Direct Relationship

	Coefficient	Standard deviation	T statistics	P values	Remarks
IB -> CS	-0.216	0.081	2.651	0.008	Supported
IB -> CL	0.185	0.072	2.566	0.003	Supported
MB -> CS	0.369	0.159	2.320	0.020	Supported
MB -> CL	0.492	0.128	3.844	0.000	Supported
DC -> CS	0.465	0.064	7.212	0.000	Supported
DC -> CL	0.138	0.068	2.023	0.021	Supported
ATM -> CS	0.159	0.100	1.586	0.113	Not Supported
ATM -> CL	0.239	0.049	4.858	0.000	Supported
CS -> CL	0.710	0.231	3.074	0.000	Supported

4.7. INDIRECT PATH/MEDIATION EFFECT

Table 4.10 displays the outcomes of the indirect route exploration with PLS-SEM. Customer satisfaction has a significant role in mediating the relationship between Internet banking and customer loyalty. According to the data (with a coefficient of -0.153, a t-value of 2.593, and a p-value of 0.010), the eleventh hypothesis is statistically significant at a 5% significance level. Furthermore, CS serves as an intermediary between MB and CL. The data (with a coefficient of 0.262, a t-value of 2.267, and a p-value of 0.023) demonstrate that the eleventh hypothesis is valid at a 5% significance level.

Furthermore, CS serves as a mediator between debit cards and CL, which is a significant discovery. The results (coefficient = 0.330, t-value = 7.027, and p-value = 0.000) provide evidence to accept the twelfth hypothesis at a significance level of 1%. The analysis is now complete. Lastly, a significant mediating effect of customer satisfaction exists between ATM and customer loyalty. Thus, the thirteen hypotheses have been rejected according to the results (coefficient = 0.113, t = 1.549, and p = 0.121).

Table 4.10: Results of Indirect Relationship/Mediation Effect

	Coefficient	Standard deviation	T statistics	P values	Remarks
IB -> CS -> CL	-0.153	0.059	2.593	0.010	Supported
MB -> CS -> CL	0.262	0.116	2.267	0.023	Supported
DC -> CS -> CL	0.330	0.047	7.027	0.000	Supported
ATM -> CS -> CL	0.113	0.073	1.549	0.121	Not Supported

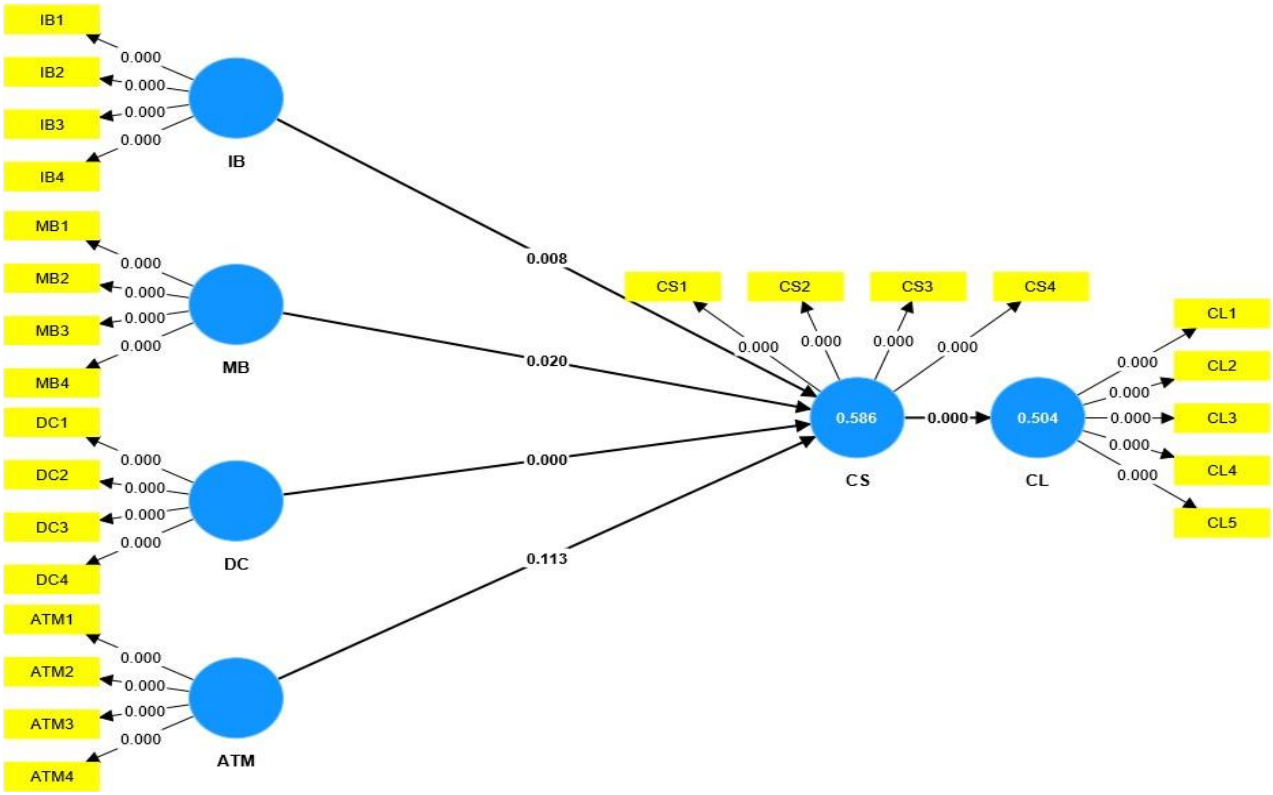

Figure 3: Structural Equational Model

4.8. FINDINGS

The findings of the study offers a comprehensive analysis of the survey conducted, which aims to identify the demographics of the respondents as well as the validity of the research instrument used. The employed sample consisted of 270 Kabul, Herat, and Kandahar residents, out of whom 77. 78% male and 22. 22% female. Large numbers of respondents were between thirty-one and forty years of age and possessed at least a bachelor's degree, with a master's degree preferred. PLS-SEM analysis was employed to

analyze the correlations between digital banking services, customer satisfaction, and loyalty. The findings show that while Internet banking (IB) has a negative effect on CS, it positively impacts CL. The findings of this study show that services such as mobile banking (MB) and debit cards (DC) enhance both CS and CL. However, it appears that ATMs do not have a strong relationship with the concept of CS but have a positive relationship with CL. In this research, customer satisfaction has positive and significant mediation effects in the relationships between IB, MB, and DC with the dependent variable. In contrast, the relationship between ATMs and CL was non-significant. Such findings can be helpful in the endeavor to improve the quality of services offered in digital banking to satisfy customers and increase their loyalty.

5. DISCUSSION AND CONCLUSION

5.1. DISCUSSION

The primary objective is to investigate the impact of Internet banking, mobile banking, credit cards, and ATMs on customer loyalty. Furthermore, the mediating effect of customer satisfaction relationship between internet banking, mobile banking, credit cards, and ATM and customer loyalty. This study is descriptive research, the method chosen to analyze the hypotheses and assess the empirical relationship between independent variables (Internet banking, mobile banking, credit cards, and ATM) and the dependent variable (customer loyalty). The mediating role of customer satisfaction has examined. This study examines Afghans interested in digital financial services in Kabul, Herat, and Kandahar cities using a five-point Likert scale survey. The research aims to educate Afghans about the importance of digital banking products and services, as most are unaware of online banking, thus improving their understanding of its usage. The present study employed the quantitative research design, and used simple random sampling is a technique for examining a subset of a larger population to derive conclusions about the total.

This study used PLS-SEM and other statistical methods to examine and investigate the population's variables and relationships (Awang, 2012; Sekaran, 2007; Hair et al. 2012) Table 4.7 displays the findings of the direct path by utilization of the SEM model. There is a negative and significant relationship between Internet banking and customer satisfaction. The

first hypothesis was accepted at the 1% threshold of significance. Internet banking negatively affects CS. Nevertheless, this relationship is rather complicated and depends on numerous elements. Factors including research findings, context, customer preference, service quality, and causality should also be considered. Consumer preferences, level of service, and competition factors also play a vital part in satisfaction levels. Mobile banking apps and branches also establish another way to enhance or diminish satisfaction. Therefore, it is necessary to be very observant, ensure that the evidence provided is comprehensive, and consider the external factors that may help draw the causal relation.

Furthermore, internet banking and CL have a positive and substantial correlation. Therefore, at a 1% significance level, the second hypothesis has been accepted. Internet banking innovation improves customer loyalty through convenience, accessibility, personalized experiences, effective communication, value-added services, security, and innovativeness. Customers can access their accounts anytime, anywhere, without any concerns. The process can increase the customer's satisfaction and loyalty to the service. The trend towards 24/7 access to accounts without needing physical bank branches stimulates higher engagement and loyalty. The personalization and specialization of communication possibilities lay the ground for stronger ties and higher customer loyalty. Sending messages directly to banks from customer phones and online consulting systems creates credibility and devotion to the banks. Services that add value to the customers, such as financial management tools, budgeting apps, and educational materials, increase customer satisfaction and retention, and continuous innovation can be a practical continuation of customer loyalty.

A significant and positive correlation has been observed between CS and mobile banking. Therefore, at a 5% significance level, the third hypothesis has been accepted. Mobility banking significantly affects customers' satisfaction because it allows for easy transactions, accessibility, a friendly and intelligent interface, real-time and reliable alerts, high-security standards, customization, speed, and good customer care. Online banking cuts down the amount of physical bank branches, enabling customers to complete their account maintenance, checking, and banking activities online. The user-friendly interface and intuitive functions of mobile apps get to the users more efficiently, while the real-time notifications for transaction activities improve transparency and willingness to trust. Mobile banking services have high operational efficiency, reduced paperwork, and reduced waiting

times. Customer support is no less efficient and comes through features such as chatbots or customer service helplines. The mobile banking platform has been a significant breakthrough for customers as their preferred channel of financial management, prompting positive comments and gratification.

Additionally, a substantive and favourable correlation exists between mobile banking and CL. Therefore, at a 1% significance level, the fourth hypothesis has been accepted. Mobile banking services increase customer loyalty by delivering convenience, enhanced connection, tailor-made elements, value-added services, innovation and brand image. Through this, people can access their accounts and perform transactions whenever and wherever, creating good relationships between banks and customers. Merging different banking functions into one single app helps increase customer interactions with the organization, leading to greater loyalty over time. Personalizing and customizing a mobile banking application via a customer's transaction history, preference, and behaviour is critical to customer retention. Besides the commodity transactions, the bank should offer more value-added services, such as financial planning tools or budget management, which will increase customer loyalty. Innovations in mobile banking technology indicate a desire to satisfy customers' specific needs and build trust and loyalty.

In addition, a positive and substantial correlation exists between the debit card and CS. Therefore, at a 1% significance level, the fifth hypothesis has been accepted. Debit cards greatly benefit customer satisfaction by offering convenience, ease of use, security, transaction recording, and wide acceptance, connectivity with core banking services, incentives, emergency funding access, and variety in expenditure. This is because they can be used without involving significant amounts of money, and as a result, their use is rapid and convenient for vendors. Similarly, debit cards have safety devices like PIN protection and fraud watches, meaning that you will be ensured security while using them. The debit cards as an instrument make it simple for customers to trace their spending and control their budgets because of electronic records that immediately accompany any transactions. Debit cards also offer emergency access to money, making them essential in people’s financial lives and positioning the banking industry to provide more value to its customers.

Furthermore, a positive and statistically significant correlation can be observed between the utilization of debit cards and CL. Therefore, at a 1% significance level, the sixth

hypothesis has been accepted. Debit card usage considerably influences customers' loyalty by establishing a bank relationship, providing easy access to funds, and integrating with other banking services. Besides, such programs have the option of giving out rewards and incentives to boost customer loyalty. Debit cards offer cardholders PIN protection and fraud monitoring systems to ensure they can reclaim their financial assets from banks. Loaning from a bank with a reputation can also be a supportive factor for people becoming more loyal. In this case, such experience with the card, like how it acts in the transactions made and shows a reliable performance, can also influence the positive evaluation of the product.

Thus, there is an insignificant relationship between ATMs and customer satisfaction. Therefore, the seventh hypothesis has been rejected. Moreover, there is a positive and significant relationship between ATMs and customer loyalty. Thus, the eighth hypothesis has been accepted at a 1% significance level. ATMs have a profound impact on customer loyalty by providing convenience and accessibility, reducing waiting times, giving privacy, delivering emergency cash, allowing for the use of extra services, raising the bank's public image and integrating with banking services. They offer 24/7 cash availability, ensuring faster service speeds and customer satisfaction. Nowadays, ATMs can always be found at bank branches, storefronts, as well as airports, etc., so you will have ample opportunities to withdraw your cash when you need to. This unique element can make a self-service kiosk appealing because it allows clients to complete transactions without face-to-face communication with the store or other customers. ATMs also ensure that the customer can have immediate access to their funds, creating an indirect bonding between the customer and the bank. Firstly, ATMs typically showcase the logo of the bank or banker, which is valuable and significant for the customers who visit that brand most often. ATMs make customers loyal by being effective in banking services and developing client loyalty.

Lastly, there is a positive and significant relationship between CS and loyalty. Thus, the ninth hypothesis has been accepted at a 1% significance level. Customer satisfaction significantly affects customers' loyalty. Moreover, it makes a loyal user-base that trusts the brand. Customer satisfaction is crucial to making your customers recommend the company; thus, be optimistic about getting new customers and strengthening the present ones. Outcomes of high customer satisfaction include lower churn rates and long-term, loyal customers that stick with a brand. Positive emotions generate personal ties between

customers and brands, which in turn cause the customers' loyalty to the brand and their bond with it. Satisfied customers are inclined to buy more, they boost revenue and stay loyal to the brand. They also give constructive critique focusing on areas that need to be enhanced and strengthening the relationship by trusting. Customer Satisfaction is essential in keeping loyal customers and creating a durable business that prospers over time.

Table 4.8 illustrates the result of the PLS-SEM analysis of the indirect path. In the relationship between Internet banking and customer loyalty, customer satisfaction significantly mediates customer loyalty. Therefore, the tenth hypothesis is endorsed at a 5% level of significance. Internet banking and customer loyalty are strongly related from the customer satisfaction perspective. Loyal customers tend to be more repeat customers likely to return or advocates who recommend the brand. Such satisfaction, in turn, forms a loop feedback effect, reinforcing satisfied customers to continually use Internet banking services, thus resulting in their continued increase in satisfaction and loyalty over time. As a result, customer satisfaction plays a crucial role in this mediation.

Furthermore, CS mediates the relationship between CL and mobile banking significantly. Therefore, the eleventh hypothesis is supported at a 5% level of significance. Customer satisfaction has been identified as the mediating variable between the linkage of mobile banking and customer loyalty. Customers who have been satisfied with the bank's service would associate it positively with the services and hence be more loyal. This fulfilment, in turn, increases consumption, positive reviews, and resistance to rivals. The mobile banking, customer satisfaction, and loyalty cycle keeps up the relationship and builds upon it, accelerating customer satisfaction and loyalty with time.

Moreover, there is a significant mediating effect of customer satisfaction between debit cards and customer loyalty. Thus, the twelfth hypothesis has been accepted at a 1% significance level. A crucial factor for customer loyalty is debit cards, through customer satisfaction as a mediating factor. One of the positive outcomes of customer satisfaction is that satisfied customers become loyal and develop a favourable attitude towards the bank's services. As a result, excessive consumption, positive feedback, and difficulty finding substitutes arise. In turn, the circle of debit cards, satisfaction, and loyalty stimulates the relationship between the debit cards and the likelihood of the consumer being loyal and

getting satisfaction. This bond creates more satisfaction and loyalty in the customer over time. . Lastly, a significant mediating effect of customer satisfaction exists between ATM and customer loyalty. Thus, the thirteen hypotheses have been rejected according to the results.

5.2. Conclusion

In conclusion, the study showed that Internet banking, mobile banking, and debit card services positively affect customer satisfaction and loyalty to the Afghanistan International Bank (AIB). Internet banking negatively influences customer satisfaction but positively affects customer loyalty; mobile banking and debit cards enhance customer satisfaction and loyalty. The study also highlights that, in general, ATMs do not affect customer satisfaction but, on the other hand, improve customer loyalty. The research identified that customer satisfaction mediates the relationship between digital banking services and customer loyalty. It appears significant only in Internet banking, mobile banking, and debit cards but not ATMs. For this reason, these findings suggest that AIB must pay attention to online banking services' general quality and availability to increase customer satisfaction and loyalty.

5.3. IMPLICATIONS

5.3.1. Theoretical implications

The theoretical implications of this study for the knowledge advancement of the connection between digital banking services, customer satisfaction, and customer loyalty are paramount. As a result, extended attention is paid to Internet banking, mobile banking, and debit cards on critical customer satisfaction and loyalty metrics. The study adds to this literature by showing that different digital banking services affect these outcomes in various ways, providing a more holistic perspective on improving banking customers' experiences through digital services. Also, the study supports the concept of customer satisfaction as a moderator and gives further insight into its centrality in enhancing customer loyalty in banks.

5.3.2. Managerial Implications

From a managerial perspective, this study offers recommendations to the banking sector, particularly for the Afghanistan International Bank (AIB) and other related sectors.

The study's findings indicate that increasing the quality of Internet banking, mobile banking, and debit card services can enhance customer satisfaction and loyalty. While Internet banking enhances customer loyalty, managers should concentrate on reversing the organization's influence on the dissatisfaction dimensions that stem from this technology. However, the fact that there is a positive correlation between mobile banking, debit cards, and satisfaction and loyalty shows that the firm should consider these tools as some of the most important strategic tools in planning and executing changes in customer services. The study also emphasizes the importance of maintaining and enhancing ATM services to strengthen customer loyalty, although this structure has an insignificant effect on customer satisfaction.

5.4. LIMITATIONS OF THE STUDY

There are several limitations to be noted in this study, which should be considered in reaching this dissertation's conclusions. First, the scope is restricted only to the three Afghan provinces, namely Kabul, Herat, and Kandahar, which might reduce the findings' generalizability to other Afghan provinces or other countries. Second, the research data is based on self-reported information from the respondents using digital banking services, which can have a particular bias in indicating higher satisfaction and loyalty levels. Third, the study was conducted in a cross-sectional setting, limiting the ability to establish a temporal comparison of customer satisfaction and loyalty results. Thus, while the study identifies and employs four dimensions of digital banking services that customers find most beneficial, this research could expand its scope to investigate other factors that might affect customer satisfaction and loyalty in the banking sector.

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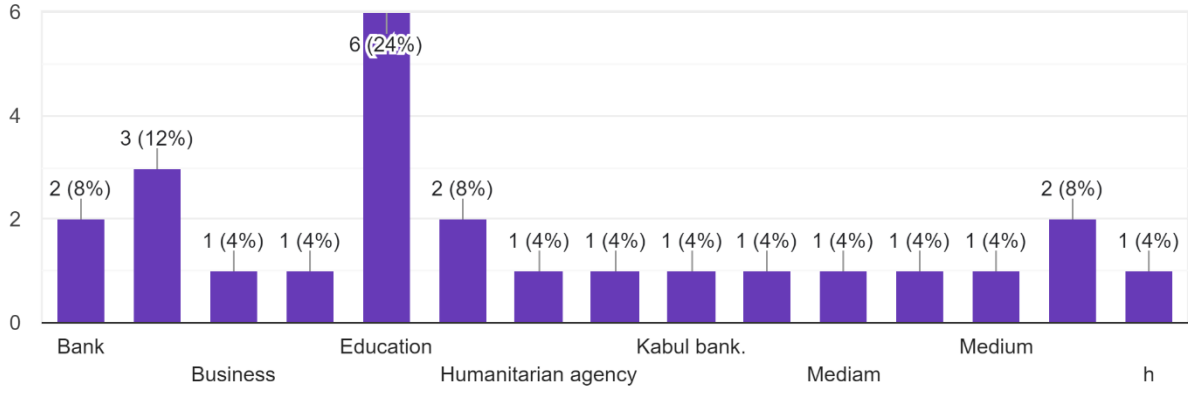
APPENDIX

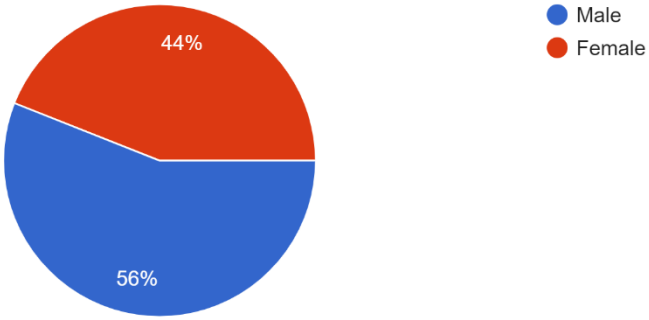
Industry Type

25 responses



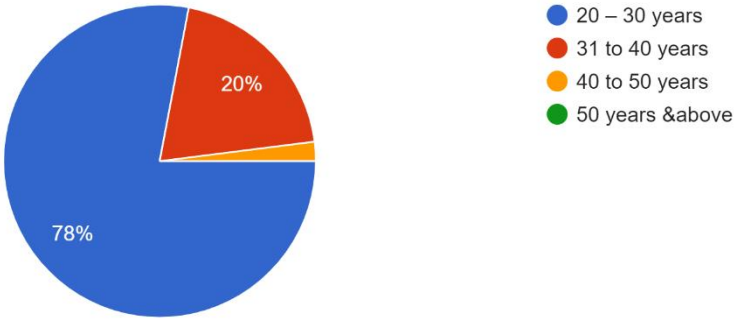
Gender

50 responses



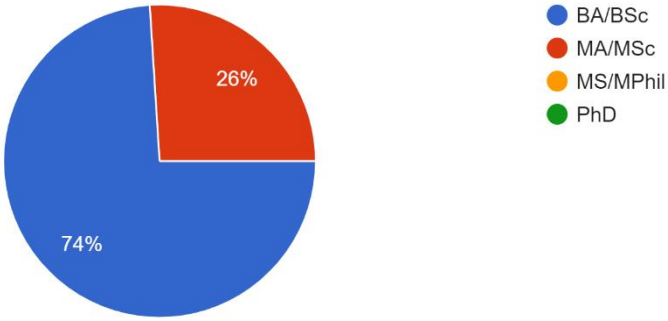
Age

50 responses



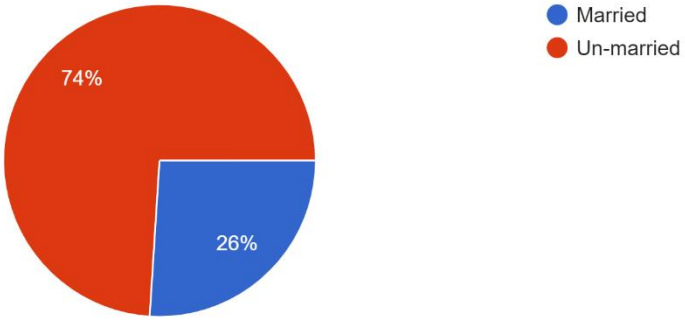
Academic Qualification

50 responses



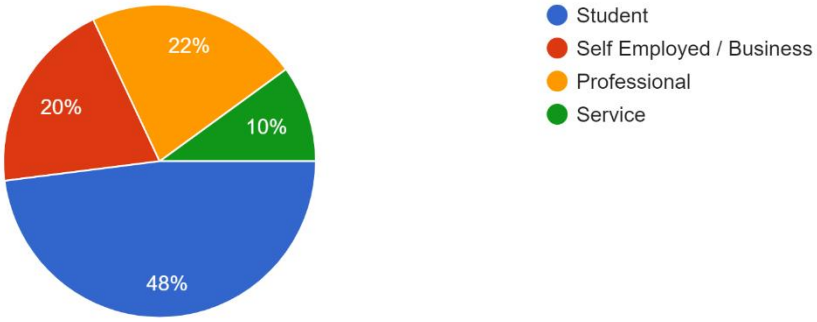
Marital Status

50 responses



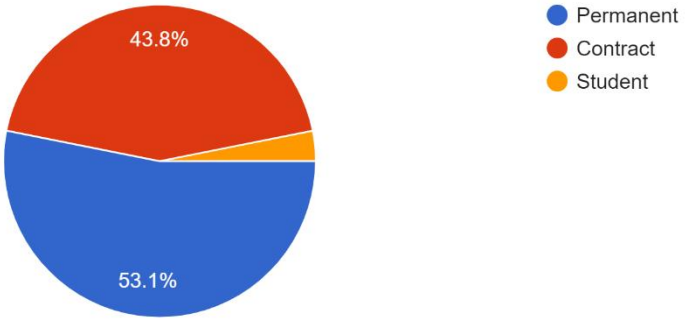
Employment Status

50 responses



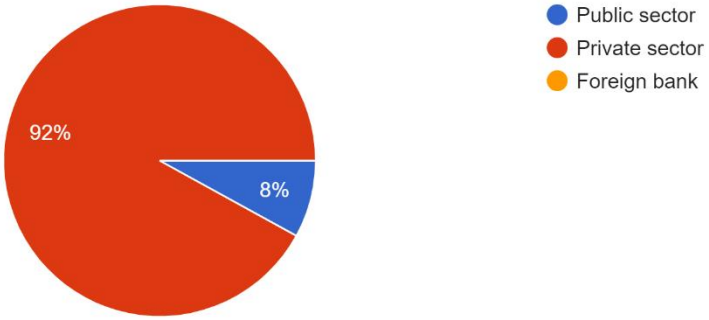
Nature of Job

32 responses



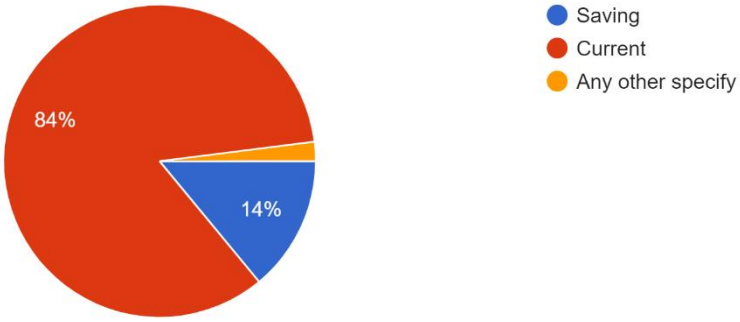
Type of Bank

50 responses



Type of account

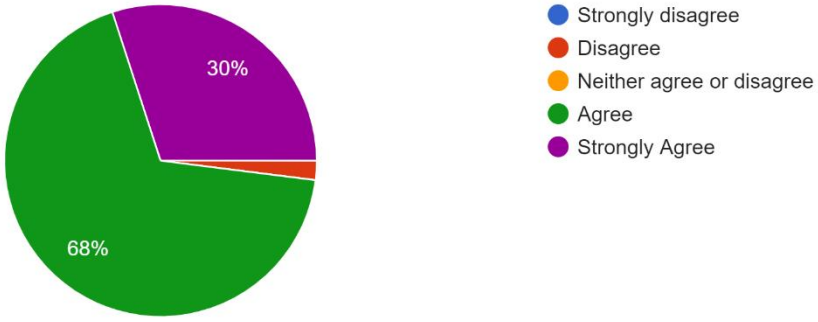
50 responses



Internet Banking

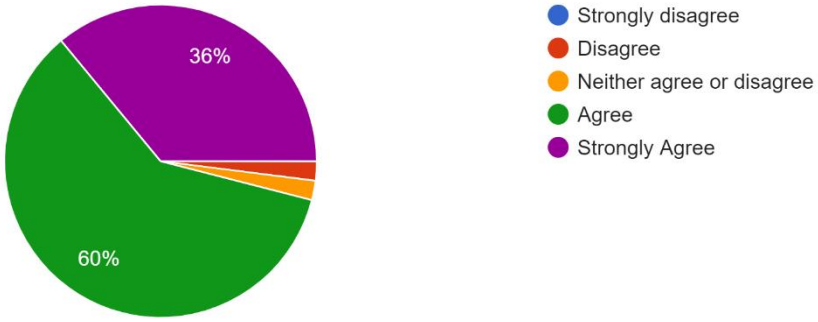
(1) Internet banking is compatible with my banking needs.

50 responses



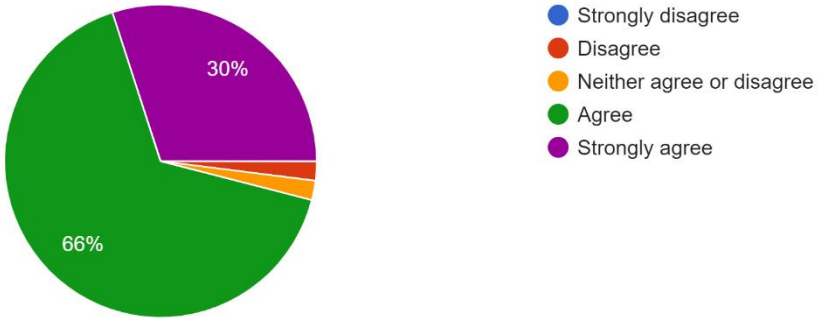
(2) Internet banking is easy to use.

50 responses



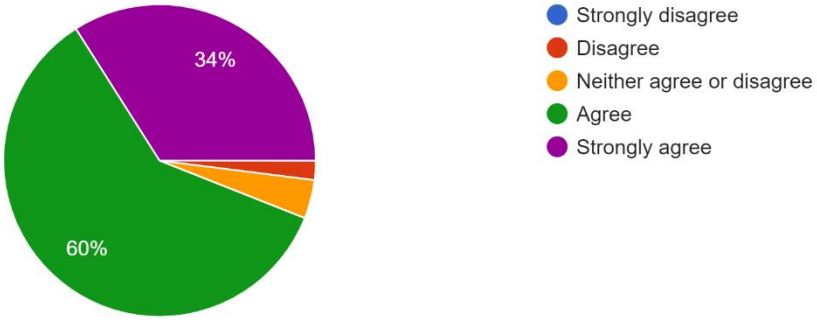
(3) Internet banking is compatible with my life style.

50 responses



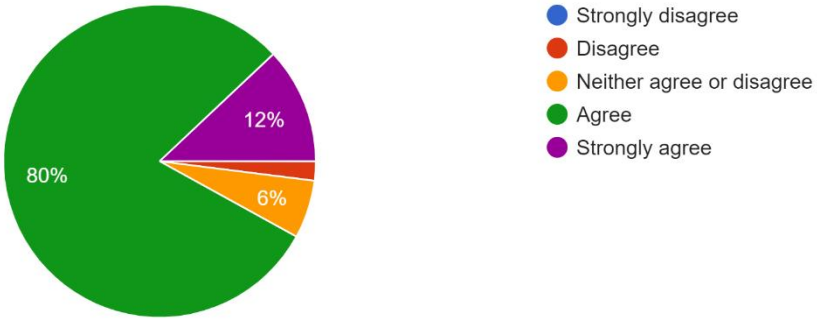
(4) Using Internet banking is a sign of modernity.

50 responses



(5) The bank has clear objectives to satisfy customers.

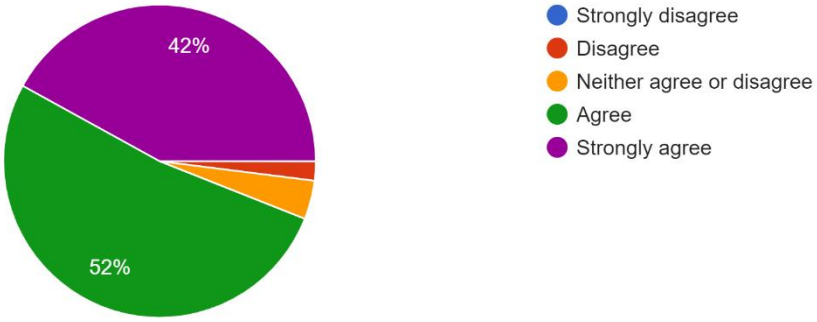
50 responses



Mobile Banking

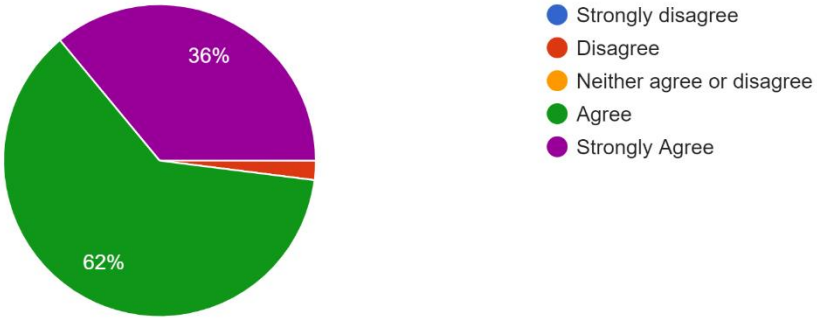
(1) I think using mobile banking saves my time.

50 responses



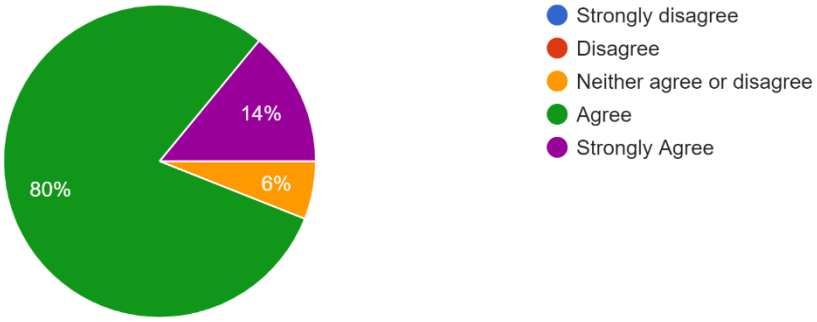
(2) I can carry out my banking operations easily using mobile banking.

50 responses



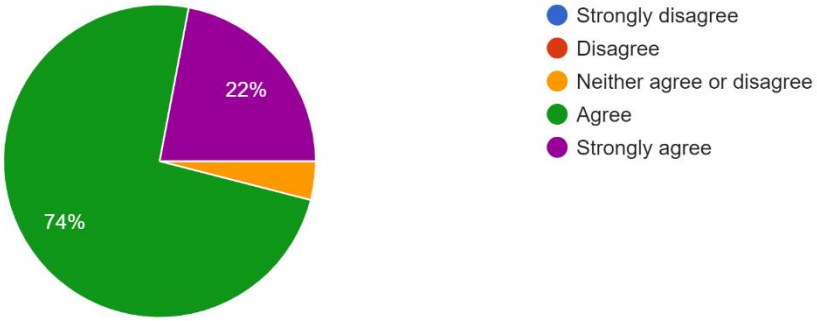
(3) I trust the network connectivity while doing a transaction using mobile banking.

50 responses



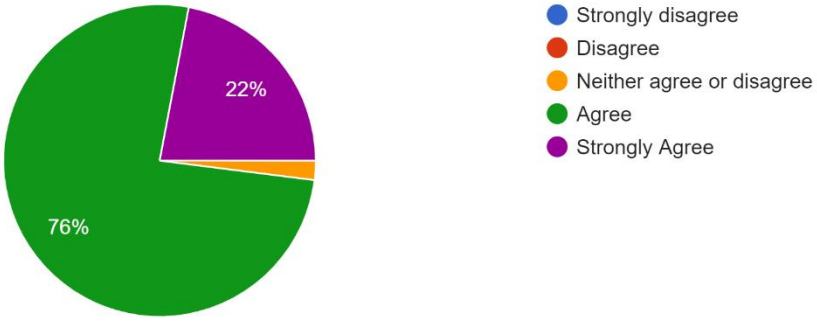
(4) I used mobile banking because of its 24/7availability.

50 responses



(5) I am comfortable using new technologies like mobile banking.

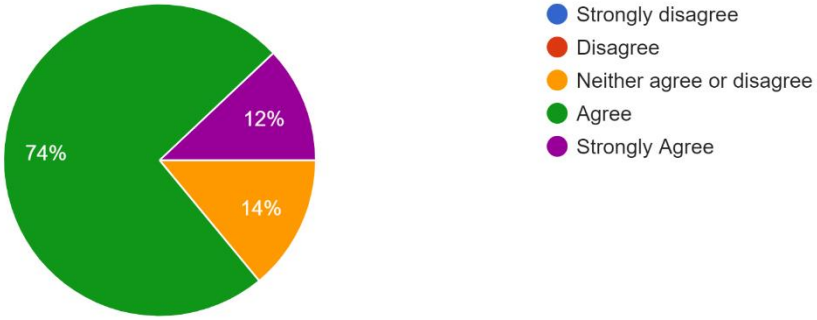
50 responses



Debit Card

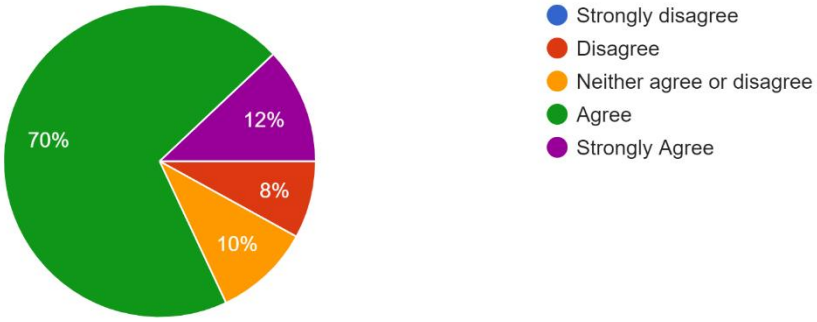
(1) Convenience for paying big bill.

50 responses



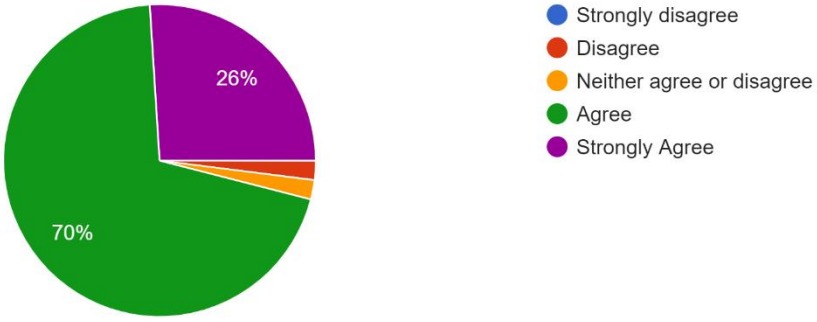
(2) Delay of payment.

50 responses



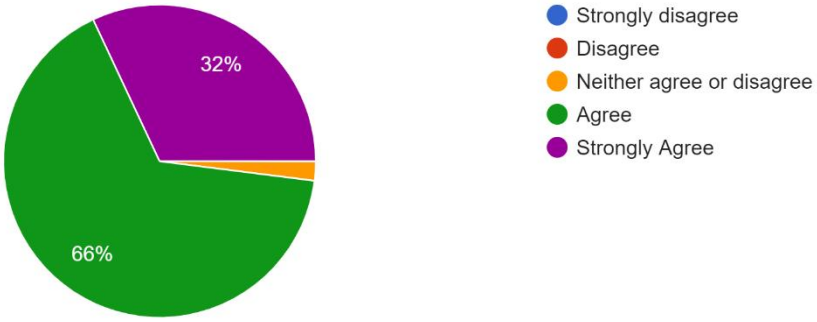
(3) Easy to use.

50 responses



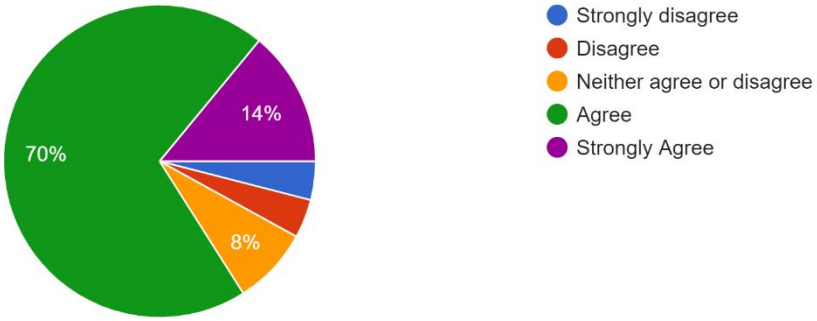
(4) Easy to carry.

50 responses



(5) Hard to control the usage of money.

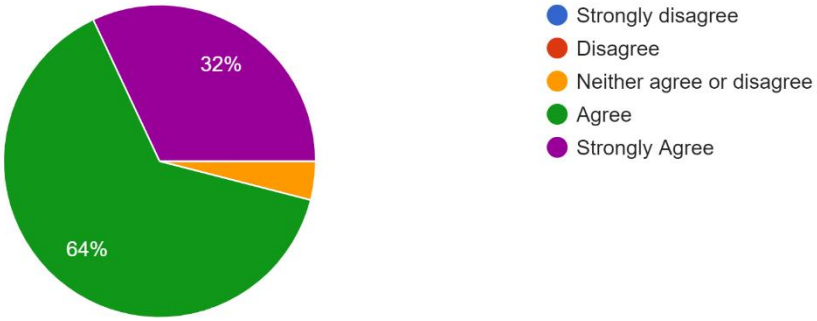
50 responses



ATM

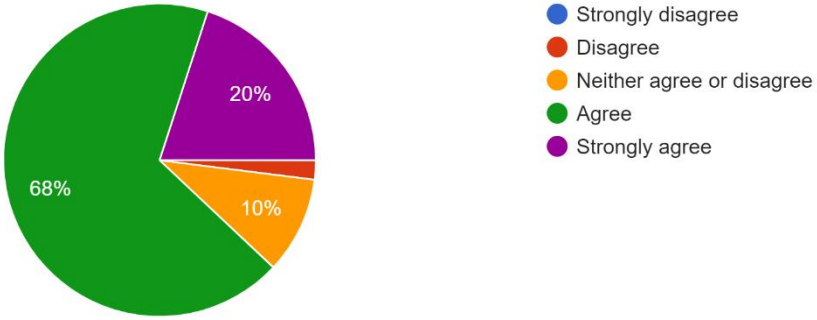
(1) I find using the ATM very simple.

50 responses



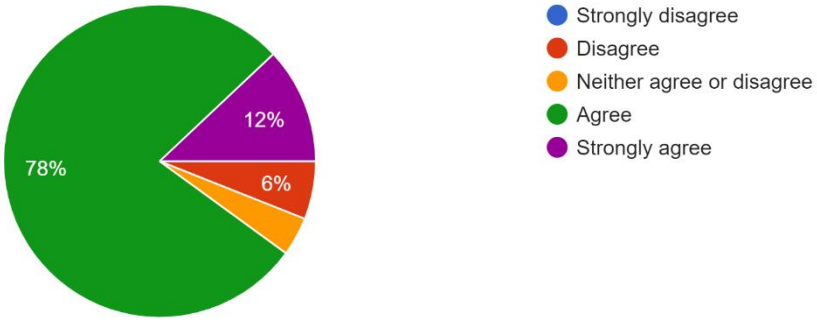
(2) I prefer using ATM for my utility payments.

50 responses



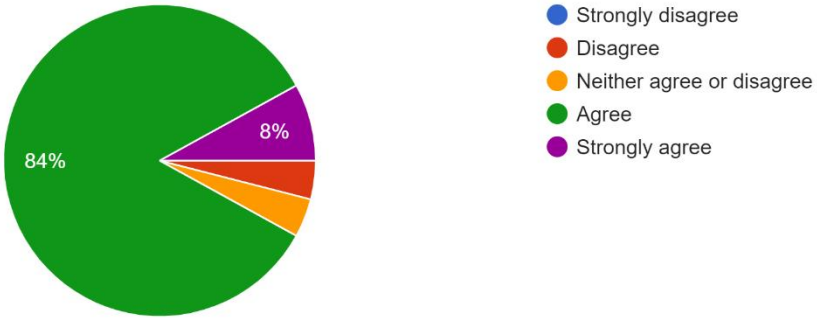
(3) I use other banks ATM with my bank ATM card easily

50 responses



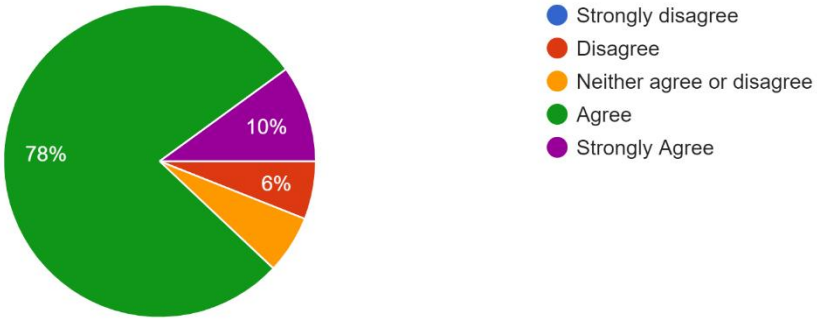
(4) I access many ATM point at a very close distance.

50 responses



(5) The ATMs are always functioning.

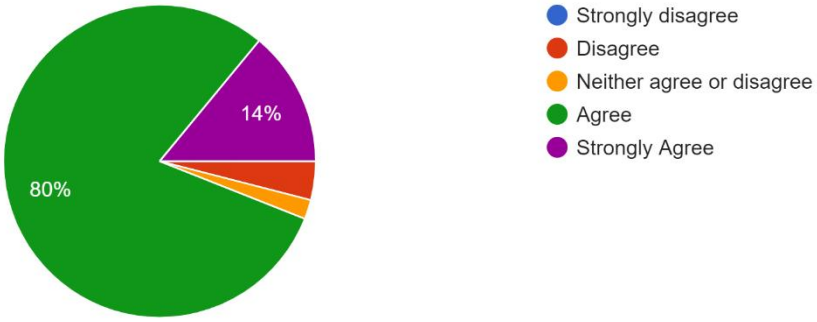
50 responses



Customer Satisfaction

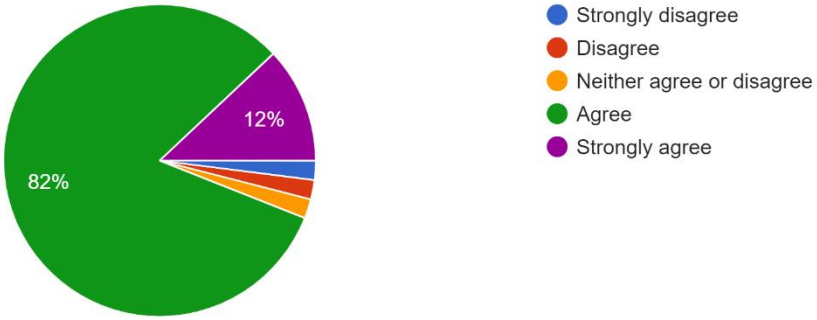
(1) E-banking Service of the bank is easy to use.

50 responses



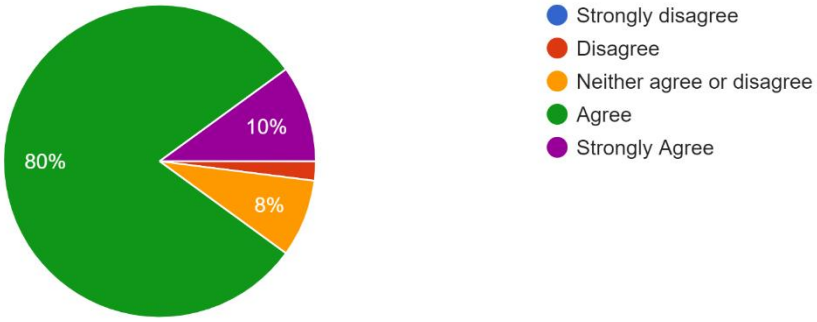
(2) Website of the bank is properly designed.

50 responses



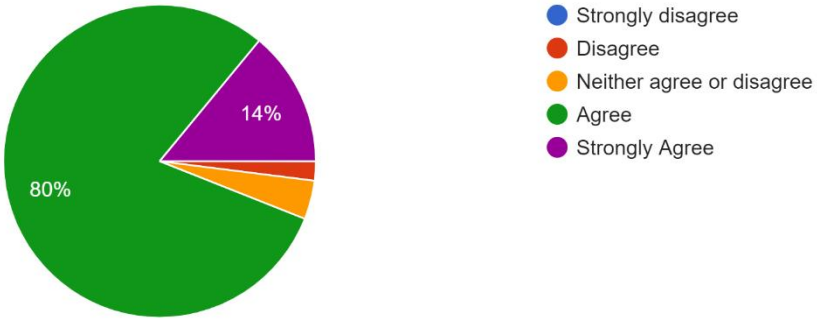
(3) Speed to login and logout of the bank website is fast.

50 responses



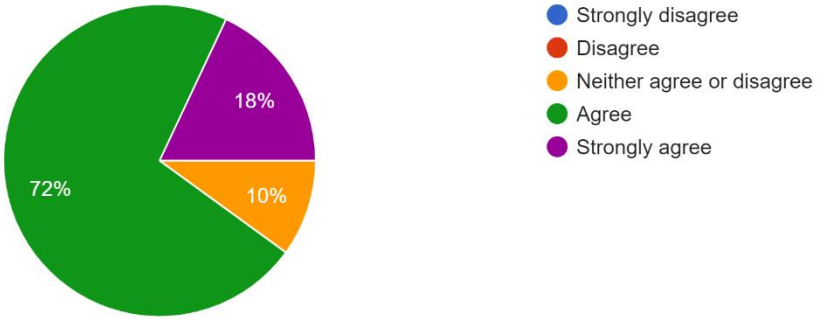
(4) The bank's website provides all details of products and services.

50 responses



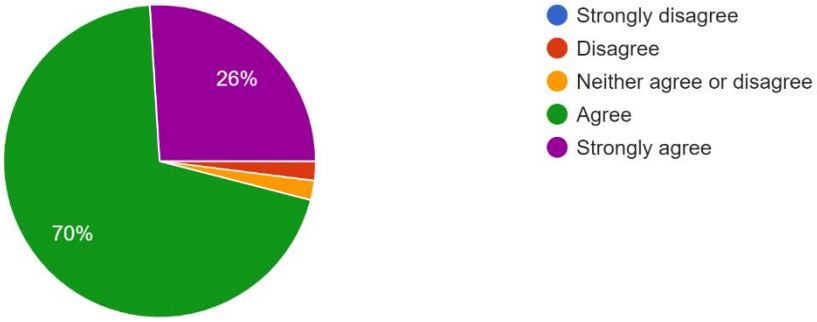
(5) The bank provides customer service over the telephone when needed.

50 responses



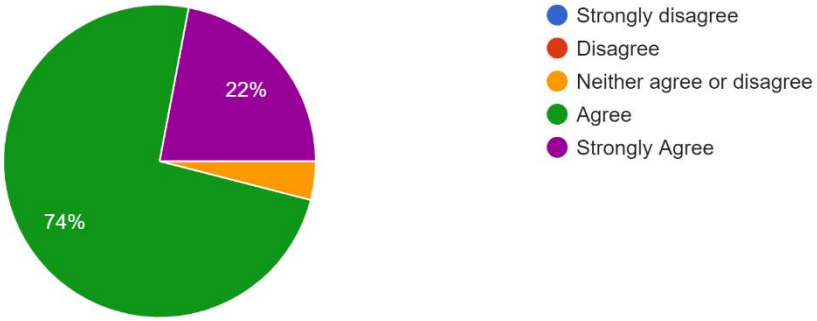
(6) The transaction on bank's website is confidential

50 responses



(7) The e-banking service of bank suggest for creation of strong password.

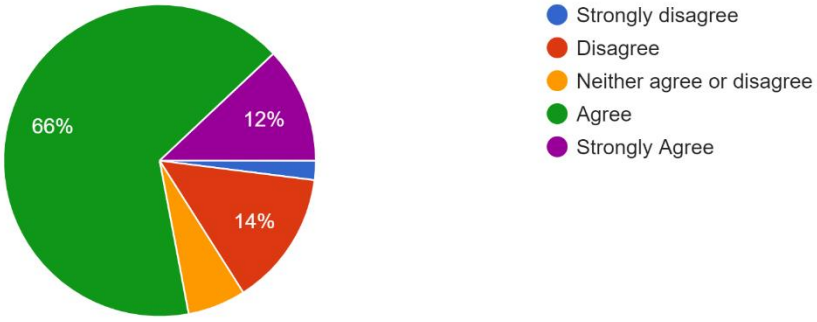
50 responses



Customer Loyalty

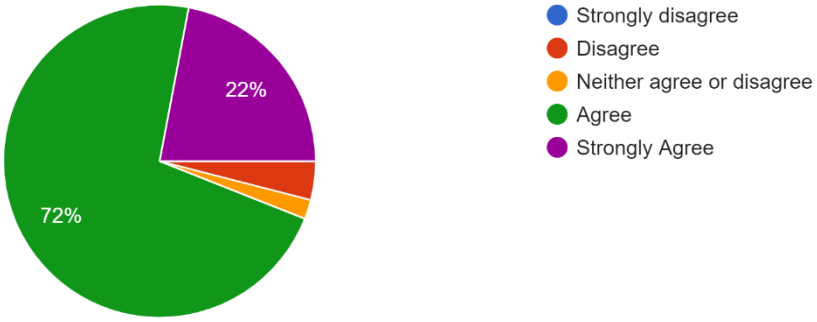
(1) I regularly visit this bank.

50 responses



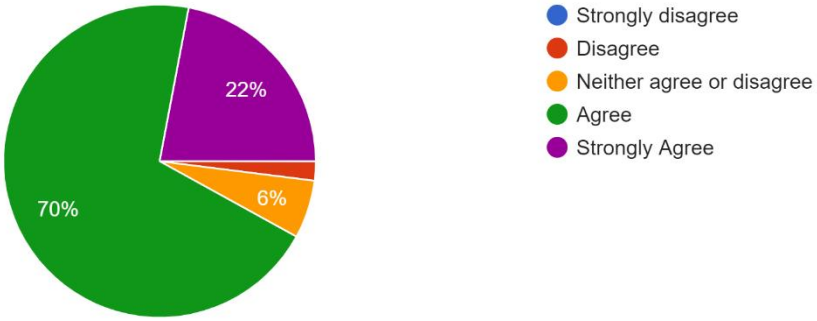
(2) Will you recommend your bank to your friends and your family members?

50 responses



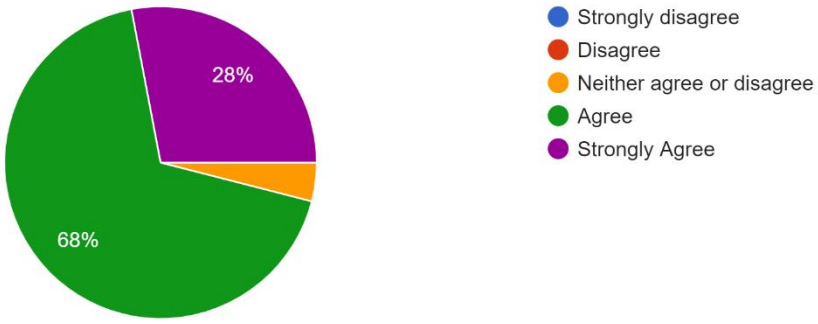
(3) The E-banking service provided by your bank is one of the reason for customer loyalty?

50 responses



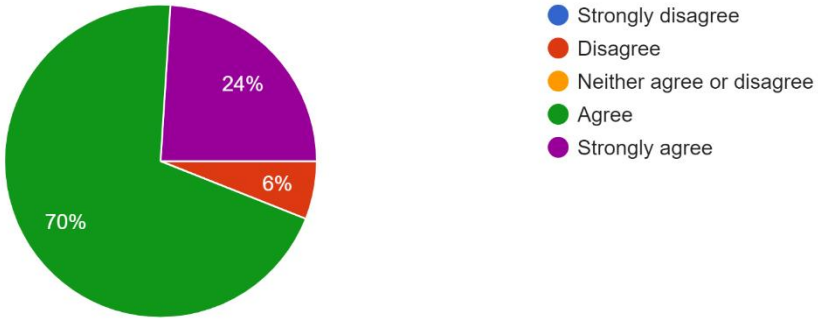
(4) Are you loyal to your bank?

50 responses



(5) I use this bank each time I need to make any financial transaction.

50 responses



BIOGRAPHY

My Bachelor's degree in Finance and Banking allowed me to establish a solid foundation in both banking operations and financial principles. I finished my master's degree in June 2024, with a focus on how the digital banking industry is changing and how that will affect consumer experiences. The relationship between digital banking services and important customer outcomes is examined in my thesis, "Nexuses Between Digital Banking Services, Customer Satisfaction, and Customer Loyalty: Empirical Evidence from Afghanistan International Bank (AIB)". My goal in doing this research was to provide important information about how digital innovations might improve customer loyalty and satisfaction, especially in the context of Afghanistan's banking industry. My job is a reflection of my commitment to helping my nation's banking services continue to expand and modernize.