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Impact of Digitalisation on banking Services with Special reference to Punjab

By: Sandeep Kaur

Research Scholar, Department of Commerce, Guru Kashi university, Talwandi Sabo, Punjab

Abstract

Digitalization is the process by which companies use a variety of new and existing technologies in response to changes in internal and external contacts to swiftly and efficiently deliver improved consumer services and experiences. The greater and more sustainable industrial and financial growth of our country is referred to as "Make in India" and "Digital India." While simultaneously ensuring high-speed broadband connectivity across the country, the government promotes the use of technology. This has now made the sizable untapped market for internet connections in India accessible.

The digital payment systems created by banks, such as the Unified Payments Infrastructure (UPI), the Bharat Interface for Money (BHIM), mobile money, and e-wallets, have sparked a financial revolution in India. If you want to stay ahead of the curve, you must adopt and apply incredibly expensive global technologies, infrastructure, and practises. Data integrity, authentication (including third-party authentication), and trust factors in financial transactions are becoming more important as a method of protecting clients. Improved customer pleasure and value are sought by employing digital technologies, which include unified client experiences, faster output, unlimited banking volumes, financial inclusion, operational efficiency, economic scale, and more. Digitalization has increased productivity and client satisfaction in numerous industries, including financial transactions. The purpose of this essay is to examine how digitalization has impacted financial transactions in India.

Keywords: digital banking, Digitalisation, Payment, Banking, Technology

Introduction

The digitalization of banking services refers to the process of incorporating digital technologies and platforms into various banking operations and customer interactions. This transformation involves leveraging digital channels, such as websites, mobile applications, and online platforms, to provide a wide range of financial services to customers. Here are some key aspects of the digitalization of banking services:

- Online Banking: Banks now offer online banking platforms that allow customers to access their accounts, check balances, view transaction history, transfer funds between accounts, pay bills, and perform other financial transactions via the internet. Online banking provides convenience and flexibility, as customers can conduct banking activities anytime and anywhere.
- Mobile Banking: With the widespread use of smartphones, banks have developed mobile banking applications that enable customers to perform banking tasks using their mobile devices. Mobile banking apps offer features similar to online banking, along with additional functionalities such as mobile check deposits, person-to-person payments, and location-based services.
- Electronic Payments: Digitalization has facilitated the adoption of electronic payment systems. Customers can make payments using methods like credit/debit cards, digital wallets (e.g., Apple Pay, Google Pay), and mobile payment apps. Electronic payment options have made transactions faster and more secure, reducing the reliance on cash and checks.
- Digital Lending: Banks have introduced digital lending platforms that streamline the loan application and approval processes. Through these platforms, customers can apply for loans online, submit necessary documentation electronically, and receive faster loan decisions. Digital lending reduces paperwork, accelerates loan disbursement, and enhances customer experience.
- Robo-Advisory Services: Robo-advisors are automated platforms that provide investment advice and
 portfolio management based on algorithms and customer input. These services use digital technologies
 to analyze financial data, assess risk tolerance, and offer personalized investment recommendations.
 Robo-advisors make investment advice more accessible and cost-effective for customers.
- Chatbots and Virtual Assistants: Banks employ chatbots and virtual assistants powered by artificial intelligence (AI) to provide automated customer support. These digital assistants can answer common queries, assist with transactions, and provide personalized recommendations. Chatbots enhance customer service efficiency and accessibility.
- Data Analytics and Personalization: Banks leverage data analytics and customer insights to personalize services and offers. By analyzing customer behavior, spending patterns, and preferences, banks can provide tailored product recommendations, targeted marketing campaigns, and personalized financial advice.
- Enhanced Security Measures: As digital transactions increase, banks prioritize robust security measures. These include multi-factor authentication, encryption technologies, biometric authentication (e.g., fingerprints, facial recognition), and real-time fraud detection systems to protect customer data and mitigate cyber threats.

Overall, the digitalization of banking services aims to provide customers with convenient, efficient, and personalized financial experiences. It empowers customers with greater control over their finances while enabling banks to optimize operations, reduce costs, and deliver innovative services.

Digitalisation on banking Services

Digitalisation has had a profound impact on banking services, transforming the way that customers access and interact with financial institutions. Here are some of the key ways that digitalisation has affected banking services:

- 1. Online Banking: One of the most significant developments in digitalisation for banking has been the rise of online banking. This has allowed customers to access their accounts, view transactions, and make transfers from their computers or mobile devices, eliminating the need to visit a physical bank branch.
- 2. Mobile Banking: Similar to online banking, mobile banking has allowed customers to access their accounts and perform transactions on their smartphones or tablets. This has made banking more convenient and accessible than ever before.
- 3. Automated Teller Machines (ATMs): While ATMs have been around for decades, they have been significantly impacted by digitalisation. Modern ATMs offer a range of services beyond simply withdrawing cash, including depositing checks, transferring funds, and paying bills.
- 4. Payment Processing: Digitalisation has also transformed the way that payments are processed, with electronic payments replacing cash and checks as the primary means of transactions. This includes debit and credit card payments, as well as online payment services like PayPal and Venmo.
- 5. Personalisation: Digitalisation has allowed banks to offer personalised services to their customers, using data analytics and machine learning to understand their customers' needs and provide tailored recommendations and services.
- 6. Security: With the rise of digital banking services, security has become a top priority for banks. Digitalisation has allowed for the development of more sophisticated security measures, such as biometric authentication, two-factor authentication, and encryption to protect customers' data and prevent fraud.

Overall, digitalisation has transformed banking services, making them more convenient, accessible, and personalised than ever before. However, it has also brought new challenges around security and data protection, which banks must navigate to continue to provide a high level of service to their customers.

Impact of Digitalisation on banking Services

Digitalization has revolutionized the banking industry in several ways. Here are some of the major impacts of digitalization on banking services:

- 1. Improved Customer Experience: Digitalization has made banking services more convenient and accessible to customers. With the help of digital platforms, customers can access banking services from anywhere and at any time. They can make transactions, check account balances, and perform other banking operations through mobile apps, online banking, and ATMs.
- 2. Cost Efficiency: Digitalization has also helped banks to reduce their operational costs. With the introduction of online banking and mobile apps, banks have been able to cut down on their physical infrastructure, which has led to cost savings. This has enabled banks to offer better interest rates to customers and invest more in technology to improve their services.
- 3. Increased Efficiency: Digitalization has made banking services more efficient by reducing the time required to complete transactions. With digital platforms, banks can process transactions in real-time, which has led to faster and more accurate transactions.
- 4. Enhanced Security: Digitalization has also improved the security of banking services. Banks have introduced advanced security features such as biometric authentication, two-factor authentication, and encryption to protect customers' data and prevent fraudulent activities.
- 5. Personalization: With the help of digitalization, banks can now personalize their services according to customers' needs and preferences. Banks can analyze customers' data to offer personalized recommendations and products that meet their financial goals.

Overall, digitalization has transformed the banking industry by providing customers with more convenient, efficient, and secure banking services while enabling banks to reduce costs, increase efficiency, and personalize their services.

Digitalisation of banking Services in India

In India, the digitalization of banking services has been a significant focus in recent years. The government, financial institutions, and technology companies have made efforts to leverage digital technologies to enhance financial inclusion, improve efficiency, and provide convenient banking services to the population. Here are some key aspects of the digitalization of banking services in India:

- Unified Payments Interface (UPI): The UPI system, launched by the National Payments Corporation of India (NPCI), has revolutionized digital payments in the country. UPI enables users to link multiple bank accounts to a single mobile application and make instant, secure, and interoperable fund transfers. It has facilitated person-to-person payments, merchant payments, and utility bill payments.
- Mobile Banking and Wallets: Indian banks have developed mobile banking applications that allow customers to access their accounts, transfer funds, pay bills, and perform various transactions using smartphones. Additionally, digital wallets like Paytm, PhonePe, and Google Pay have gained popularity, enabling users to make payments, recharge mobile phones, pay utility bills, and shop online.
- Aadhaar Enabled Payment Systems (AEPS): Aadhaar, India's biometric identification system, has been integrated into banking services. AEPS allows individuals to link their Aadhaar numbers to their bank

accounts and use biometric authentication (fingerprint or iris scan) for transactions. This system has facilitated financial inclusion by enabling transactions for individuals without traditional identification documents.

- Jan Dhan Yojana: The Pradhan Mantri Jan Dhan Yojana (PMJDY) is a government scheme aimed at
 promoting financial inclusion. It encourages the opening of bank accounts for the unbanked population
 and provides basic banking services along with access to insurance and pension schemes. The
 digitalization of PMJDY has enabled beneficiaries to access their accounts through mobile banking,
 digital wallets, and micro ATMs.
- Bharat Bill Payment System (BBPS): BBPS is an integrated bill payment system that enables users to pay bills (electricity, water, gas, telecom, etc.) through various channels, including online platforms, mobile applications, and bank branches. It has simplified bill payments by providing a unified platform and enabling interoperability between banks and billers.
- Digital Lending and Credit: Digital lending platforms have gained popularity in India, offering quick and convenient loan application and approval processes. Non-Banking Financial Companies (NBFCs) and fintech firms provide digital loans based on customer data analysis, including credit scores, bank statements, and alternative data sources.
- Financial Technology Innovation: India's fintech industry has witnessed significant growth, driving innovation in banking services. Fintech companies offer solutions such as peer-to-peer lending, robo-advisory services, online investment platforms, and automated wealth management tools. These technologies provide convenient access to financial services and promote financial literacy.
- Secure and Cashless Transactions: To enhance security and reduce cash transactions, various initiatives have been implemented, including the introduction of EMV chip-based debit and credit cards, mobile-based tokenization, and contactless payment options. These measures aim to make digital transactions secure, convenient, and widely accepted.

The digitalization of banking services in India has played a crucial role in promoting financial inclusion, expanding access to banking services, and driving the country's transition towards a less-cash economy. The adoption of digital technologies has simplified financial transactions, improved efficiency, and enabled individuals to have greater control over their finances.

Objectives

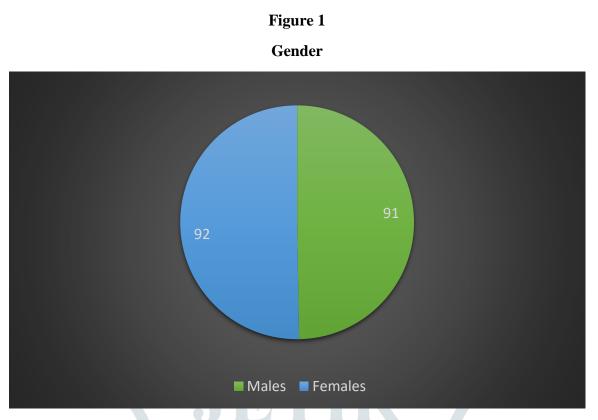
- 1. To study digitalisation of banking services.
- 2. To study the impact of digital services in banking services.
- 3. To study the challenges faced digital banking services.

Review of Literature

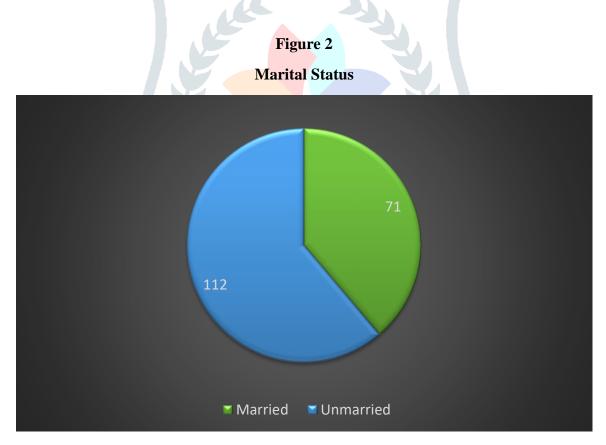
Ozili, Peterson. (2022). Studied "Digital Financial Inclusion" and concluded that Much progress must be made, and this will necessitate the use of existing and new creative digital technologies to adapt financial services to suit the requirements of everyone on the path to financial inclusion. Policymakers should exercise caution when developing a national plan for digital financial inclusion. Nautiyal, T. & Ismail, S. (2022). Studied "Financial Inclusion in India: A Regional and District Level Analysis" and concluded that There is a considerable and positive relationship between financial inclusion and other social development indices like urbanisation and literacy rates. While the population is shown to be small, literacy rate and urbanisation strongly predict or explore financial inclusion. In other words, areas with high rates of urbanisation and literacy are more likely to be economically developed. The first step towards financially integrating the majority of people is to introduce them to fundamental financial products. Gharbi, Inès & Kammoun, Aida. (2022). Studied "Relationship Between Digital Banking and Financial Inclusion: Evidence from Tunisia" and concluded that Policymakers should implement such measures to encourage digital finance, which would contribute to financial inclusion and inclusive growth in the country. Ozili, Peterson. (2022). Studied "The future of financial inclusion" and concluded that the government will become more involved directly in providing basic financial services to the poor. New financial technologies that consistently lower transaction costs will emerge. There will be issues with consumer protection, data privacy, and immoral technologies. Parvin, S. & Panakaje, Dr. (2022). Studied "A Study on the Prospects and Challenges of Digital Financial Inclusion" and concluded that DFI is critical for rural residents to experience sustainable and inclusive financial growth in order to enhance their level of living. As a result, it is critical to provide basic digital financial services in rural regions by investing in adequate infrastructure. Benny, A. (2022). Studied "Financial Inclusion and Digitalization in India: Promises and Pitfalls" and concluded that financial inclusion should always be accompanied with good financial education as well as financial stability; otherwise, we will have a nation that simply spends too much and will eventually become crippled in debt, both in terms of the public economy and personal finances.

Research Methodology

The research sample consists of women who work in Punjab. In the study, convenience sampling was used. To acquire information, we adopted a questionnaire strategy. A total of 200 customers of different banks were selected as a respondents. Any incomplete surveys have been excluded from the study. Ultimately, 183 customers of different banks were responded, achieving a 91.5% valid response rate. The responses were compiled for data analysis. Secondary data was also used in reference materials including books, magazines, and journals, among others.

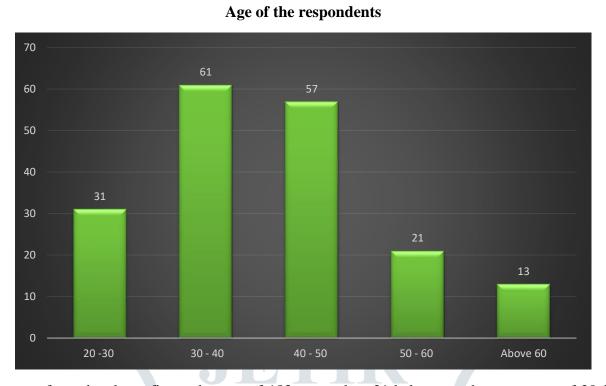


It can be seen from the above figure that out of 183 respondents 91 were males and 92 were females.

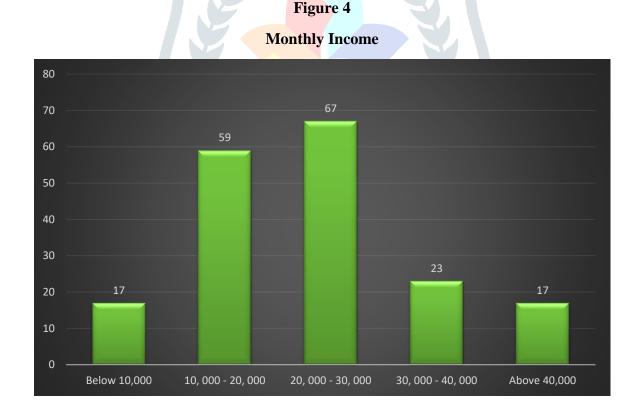


It can be seen from the above figure that out of 183 respondents 71 were married and 112 were unmarried.





It can be seen from the above figure that out of 183 respondent 31 belongs to the age group of 20-30 years followed 61 belongs to the age group of 30-40 years. 57 respondents belong to the age group of 40 - 50 years of age. 21 belongs to the age group of 50 - 60 years and only 13 belongs to the age group of over 60 years.



It can be seen from the above figure that out of 183 respondent 17 were having less than 10, 000 as a monthly income, 59 respondents earns between 10,000 - 20,000, 67 respondents earns between 20,000 - 30,000. 23 women working in healthcare sector earns in between 30,000 - 40,000 and only 17 respondents earn more than 40,000 as an average monthly income.

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The preparation of a well-structured questionnaire for the gathering of primary data was meticulous. In order to explore how digitalisation of banking affects banking services, multiple choice and Likert scale questions were carefully crafted. Cronbach's alpha, which measures reliability and validity, is 0.976. The Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyse the data. One-way ANOVA and the reliability test are the statistical methods used to analyse the data. Similar to a test, a one-way ANOVA is used to compare the mean scores on a continuous variable between two or more groups. One way analysis refers to the process of examining the effects of just one independent variable on one dependent variable. A post hoc analysis was done in the study to determine whether group differed substantially from the others.

One way ANOVA Test

Internet Banking			
Particular	ANOVA		
Internet Banking is very convenient	2.23		
Internet Banking is easy to adapt	2.24		
Internet Banking is highly secure	2.34		
Internet Banking is user friendly	2.57		
Internet Banking have low service charge	2.26		
Internet Banking have accurate timing	2.16		

(Source: Primary Data)

Mobile Banking		
Particular	ANOVA	
Internet Banking is very convenient	2.12	
Internet Banking is easy to adapt	2.24	
Internet Banking is highly secure	2.48	
Internet Banking is user friendly	2.32	
Internet Banking have low service charge	2.18	
Internet Banking have accurate timing	2.24	

(Source: Primary Data)

Mobile Wallets		
Particular	ANOVA	
Internet Banking is very convenient	3.14	
Internet Banking is easy to adapt	2.84	
Internet Banking is highly secure	3.16	
Internet Banking is user friendly	3.14	
Internet Banking have low service charge	3.24	
Internet Banking have accurate timing	3.26	

(Source: Primary Data)

Credit Card		
Particular	ANOVA	
Internet Banking is very convenient	3.01	
Internet Banking is easy to adapt	3.02	
Internet Banking is highly secure	3.02	
Internet Banking is user friendly	3.24	
Internet Banking have low service charge	3.44	
Internet Banking have accurate timing	3.00	
	1	

(Source: Primary Data)

Debit Card			
Particular	ANOVA		
Internet Banking is very convenient	2.82		
Internet Banking is easy to adapt	2.14		
Internet Banking is highly secure	2.83		
Internet Banking is user friendly	2.83		
Internet Banking have low service charge	3.14		
Internet Banking have accurate timing	3.22		

(Source: Primary Data)

One way ANOVA – F Value and P value

One way mile ville i value and i value		
Particular	F Value	P Value
Internet Banking is very convenient	1.544	0.026*
Internet Banking is easy to adapt	1.237	0.044
Internet Banking is highly secure	1.144	0.122
Internet Banking is user friendly	1.307	0.043
Internet Banking have low service charge	1.528	0.028*
Internet Banking have accurate timing	0.317	0.126

(Source: Primary Data) *Significant

Discussion

Since the p-value is less than 0.01 at the 1% threshold of significance, the null hypothesis is disregarded. The Duncan Multiple Range Test (DMRT) indicates that there is a 5% difference between Internet and mobile banking when using mobile wallets (apps), credit cards, and debit cards. As a result, the usability of Internet banking, mobile banking, mobile wallets (apps), credit cards, and debit cards is essentially the same.

With regard to convenience, reasonable service prices, accurate timeliness, and straightforward interbank account facilities, the null hypothesis is rejected at a 5% level since the p-value is less than 0.05. Online banking, mobile wallets (apps), credit cards, and debit cards all varied by 5%, according Duncan multiple range tests. However, mobile banking uses digital money in the exact same way as the other categories do. The cheap

service charge, online banking, and mobile banking are noticeably different with the debit card at 5%. However, in terms of digital currency, credit cards and mobile wallets are identical to every other category.

There has been a 5% difference between utilising Internet banking and using a credit card or debit card with careful planning. Mobile banking and mobile wallets (apps), however, are the same as the other categories in terms of digital currency. The convenient interbank account services, which charge 5% for mobile wallets, credit cards, and debit cards, are very different from internet banking. However, there is no way to separate Internet and mobile banking from other forms of digital money.

There aren't many differences between digital finance (Internet banking, mobile banking, mobile wallets (APPS), credit cards, and debit cards) and traditional finance in terms of flexibility, affordability, security, user-friendliness, monthly statements online, and speedy financial decision-making. when the p-value is higher than 0.05. Therefore, for flexibility, cost, security, usability, online monthly statement, and quick financial decision making, the null hypothesis is accepted at 5%.

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Conclusion

Digitalization's effects on financial services include In this article, Punjab is specifically explored. Digital money is crucial to the populace's daily existence. The study's findings indicate that mobile banking benefits from usability, simplicity, precise timing, and straightforward interbank account facilities. Mobile wallets (apps) are greatly benefited by low service fees, appropriate time, and convenience. The study concludes that a significant impact of digital finance, including Internet and mobile banking, mobile wallets (apps), and credit and debit cards, on financial inclusion may be shown. Every person wants to utilise digital finance in their everyday lives, despite the fact that it has a number of disadvantages, including prices, security, flexibility, etc.

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