AGE, EDUCATION, AND SOURCE OF KNOWLEDGE AS THE GAME CHANGER FOR USE PATTERN OF DIGITAL BANKING SERVICES

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ABSTRACT

The acceptance of modern banking is not easy for everyone, as technology is not always readily accessible or understood by the entire population. Digital banking services offer a wide range of features, from viewing balances to making international payments, and these services cater to the masses rather than specific individuals. Most digital banking services do not have distinct segmentation for different customer groups, as they are offered equally to all, regardless of age or education. However, some of these services remain unknown to large segments of the population that may need them the most. In the digital banking landscape, every customer holds significant importance, making it essential to study how banking services can effectively reach everyone in society and what factors influence the adoption and usage of innovative banking technologies. These services must fulfil customer needs while minimizing routine banking efforts. This study explores the various digital banking services available and how they become accessible and familiar to users. It identifies the recipients of effective communication regarding digital banking and examines how age

and education influence service usage habits. Both primary and secondary data were used for analysis, with primary data collected from 88 respondents through a convenient sampling method in Karnataka. Bivariate tables were constructed to analyse different age groups and their level of knowledge regarding digital banking. The study employed descriptive and inferential statistics, percentages, comparison methods, and charts for analysis. A comparison between mobile banking and internet banking for routine transactions was also conducted, revealing that banking applications on mobile devices have a higher diffusion rate than internet banking. The usage of both mobile and internet banking depends on individuals' knowledge levels, and continuous awareness initiatives help increase adoption, particularly among middle-aged and educated individuals, leading to a higher diffusion rate of digital banking services. Ultimately, this shift transforms banking habits from traditional methods to a more virtual system.

Keywords: Mobile Banking, Internet Banking, UPI, Digital Banking Services.

INTRODUCTION

The internet facilitates access to various media and communication channels, including word-of-mouth interactions [1] The modern world is becoming digital in every dimension, including banking, where virtual services have become essential for sustainability. Digital usage patterns play a crucial role in the services sector. The COVID-19 pandemic had a positive impact on financial literacy [12] benefiting several Fintech service providers by enhancing financial inclusion and awareness[19] [29] . Changes in digital banking adoption are influenced by demographic characteristics and knowledge levels. For the effective use of technology, policymakers should consider adapting ICT strategies to emphasize relative advantages[35] . The formal management of banking institutions and their goals depends on demographic factors and knowledge. Establishing a connection between these two ensures mutual benefits - users achieve satisfaction, while service providers meet their objectives. The success of digital banking adoption depends on effective communication and knowledge dissemination, influencing customer decisions and service usage[43] . Understanding the system is essential to align customer needs with management goals. Procedural knowledge is crucial, as it involves the steps and operations required to use digital banking services effectively. Procedural knowledge refers to the ability to perform specific tasks, methods of inquiry, and step-by-step instructions for using banking services[15] . The digital divide, caused by disparities in internet access, is influenced by factors such as income, age, education, and rural/urban status[31] . Banking services are now available on multiple digital platforms, where service efficiency often outweighs the significance of physical bank locations. Banks provide digital services

through two primary platforms: internet banking and mobile banking[11] . These services operate via bank websites and mobile applications, enabling digital transactions. Mobile banking functions through smartphone applications, while UPI, developed by the National Payments Corporation of India (NPCI), serves as a specialized platform for digital payments.

LITERATURE REVIEW

Decision making is choosing an alternative from among a set of alternatives and is a criteria-based course of action [50]. The process of learning starts with these alternatives and actions. Individuals integrate the ability of learning through the interaction of emotions [47]. The importance of integrated learning is explicitly highlighted through its multiple scales of adaptability, which apply to real-world situations. The concept of adaptability within an integrated learning process allows for the inclusion of values, beliefs, and public interest in ecological change. Integrated learning is a foundation for debate and requires further development through its various branches [14]. An individual's purchase decision is influenced by cognitive processing and personality [17]. Preferences function as cognitive ability [23]. The complex pieces of information can be simplified by visualisation [39]. Rating and review communities play a significant role in shaping consumer decision-making. Understanding customer purchase decisions based on social commerce components remains a challenging task [3] Using secondary data from the World Bank Global Financial Inclusion database, researchers have measured socio-economic factors and their impact on the adoption of digital banking services [37] The existence of an affordance supports the choice of action [9]. The study reveals that socio-economic status has a significant association with digital banking usage and accessibility[34] Adolescents consider multiple dimensions for choosing [48]. The diffusion of the internet is skewed among older age groups, particularly seniors aged 65+ and 70+. Social context plays a crucial role in influencing internet use within these demographics[41] [51] [13] . Encouragement from friends and family can promote digital adoption and help bridge the digital divide, ensuring greater digital equality [24] .

OBJECTIVES

- To explore the importance of digital banking services and the different channels through which they are delivered.
- To analyse the factors influencing how digital banking services reach and engage customers.
- To assess how age and education levels influence knowledge acquisition and usage patterns.

HYPOTHESIS

H01	There is no substantial correlation between age and the usage of Internet banking services.
H02	There is no substantial correlation between age and the usage of mobile banking services.
H03	There is no substantial correlation between education and the usage of Internet banking services.
H04	There is no substantial correlation between education and the usage of mobile banking services.

RESEARCH METHODOLOGY

This study explores the importance of digital banking services, how they are communicated to end users, and the satisfaction levels of users who adopt them. It identifies various service delivery methods and their integration into daily life. To know the insights, the study adopted a descriptive research design. Both quantitative and qualitative methods were used to explore the concepts. The study employs both primary and secondary data. It adopted a convenient random sampling method in the state of Karnataka by using a structured questionnaire for collecting the primary data. The data collected from eighty-eight respondents, comprising fifty-six male and thirty-two female respondents, from the age group of 18-25 (young adults), 25-40 (adults), 41-50 (middle-aged adults), and 51 and above, with diverse educational backgrounds from matriculation to Ph.D. Theoretical inputs were gathered through a literature survey, including articles from reputed journals, research papers, and book chapters from various online sources. Primary data was collected to analyse the sources of knowledge about digital banking services and their usage patterns. A five-point Likert scale was used to measure acceptance levels of different knowledge sources, including mass communication, word of mouth, self-learning, and demonstration processes. Data on net banking and mobile banking usage were collected comparatively, analysing the preferred methods for routine transactions. Secondary data was sourced from the RBI website. Descriptive and inferential statistics were used for data analysis. Methods such as percentage analysis, comparative analysis, charts, and chi-square tests were applied to determine relationships. The chi-square tests were conducted using SPSS.

DISCUSSION

The virtual revolution is shaping the knowledge economy[30] . Although young adults are well-connected, their usage patterns vary[33] . Social factors significantly impact digital banking adoption, with well-educated individuals and those in stable economic conditions more actively participating in digital transactions[21] . Internet accessibility has evolved into multiple segments, requiring specific skills for navigation[44] . Education plays a crucial role in enhancing digital literacy by adding the necessary skills[6] [53] . The acceptance of environmental, social, and governance (ESG) systems fosters values and eco-awareness in 21st-century students[20] . They play a key role in driving digital engagement[7] . Age, education, and experience influence digital banking usage. Educated individuals use the internet more frequently for acquiring news, financial activities, entertainment, and social interactions[5] . Generation Z values smart, futuristic, and wide-ranging digital experiences[8] , whereas senior citizens prioritize trust and security[19] .

Cognitive processes drive digital banking adoption. Awareness leads to intention, which transitions into behaviour and eventually forms habits[22] Awareness stems from various economic, social, cultural, formal, and informal sources. Demographic factors such as age, education, and gender significantly correlate with web usage[46] Women entrepreneurs show lower adoption rates of digital payment platforms, necessitating targeted initiatives to strengthen digital adoption[42] Digital banking services are crucial as customers increasingly prefer banks that offer digital solutions[36] Digital banking encompasses multiple modes, including net banking, online banking, mobile banking via smartphone applications, and UPI applications. These platforms facilitate balance inquiries, cheque book requests, transaction details, fund transfers, investments, bill payments, fixed deposit creation, standing instructions, nominations, and travel bookings.

Routine banking services are categorized into four groups:

1. Viewing Account Details: Includes balance checks, credited or debited transactions, and cheque status.
2. Fund Transfers: Money transfers within the same bank or to other banks.
3. Utility Payments: Covers electricity, water, gas, telephone, petrol, mobile recharge, and other essentials.
4. Ticket Booking: Includes travel reservations.

Internet Banking: Internet banking enables banking transactions through a bank's website, offering convenience and increased satisfaction[25] Customers can access services from any internet-connected device[16] eliminating location and time

constraints[32] Cost efficiency is also a factor for banks in launching digital innovations[51] Internet banking provides a broader range of transactions compared to mobile banking and UPI, with multi-layer security and transaction tracking. It is considered the safest digital banking method due to its enhanced security protocols.

Mobile Banking: Mobile banking operates via smartphone applications, facilitating customer-bank interactions[27] While its service range is limited compared to internet banking, it surpasses UPI in functionality. Mobile banking satisfaction was high during uncertain times[10] The key factors influencing mobile banking adoption include usefulness, technology acceptance, and intuitive design[45] [38] However, mobile banking services require further enhancements, especially in developing countries[4]

UPI Payments: The National Payments Corporation of India (NPCI) introduced the Unified Payment Interface (UPI) to promote digital transactions and a cashless economy[2] [28] UPI enables secure and swift payments through unique UPI IDs [18] While UPI facilitates payments and receipts, its scope is limited compared to the internet and mobile banking. It is primarily used for bill payments and fund transfers.

ANALYSIS

1. Users of Digital Banking Services:

According to RBI data, new active internet banking users increased over the last three years. In 2023, 4,567,529 new users were added, while in 2024, the number rose to 5,376,345. However, mobile banking service users saw a decline from December 2022 to December 2023. This trend reversed from December 2023 to December 2024, with an addition of 2,941,746 new active users.

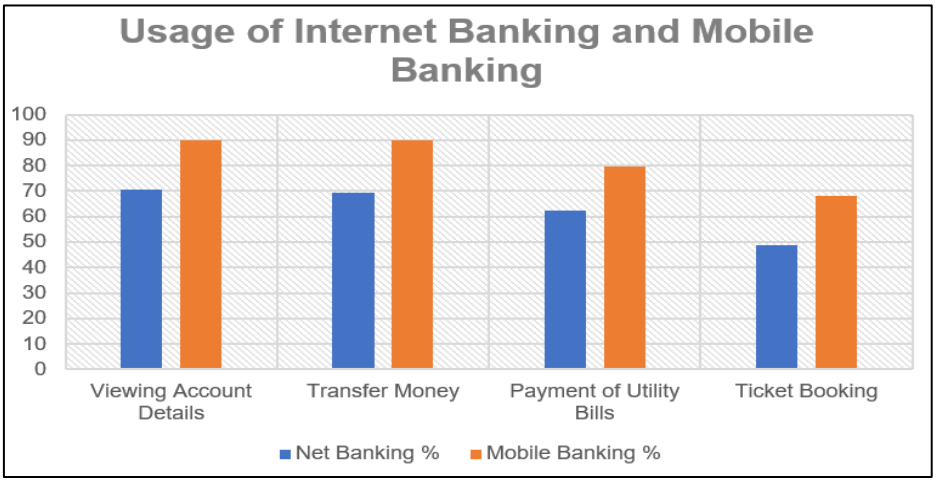
2. Age-Wise Sources of Knowledge Acquisition:

Data from primary sources indicate that among the 18-25 age group, the primary sources of knowledge acquisition were self-learning (47.06%) and the demo process (41.18%). For the 26-40 age group, mass communication (56.41%), word of mouth (51.28%), and self-learning (41.02%) were key knowledge sources. In the 41-50 age group, 76.47% preferred mass communication, 58.82% relied on word of mouth, and 47.06% engaged in self-learning. The 51+ age group primarily relied on word of mouth (53.33%), the demo process (40%), and mass communication (60%) for knowledge acquisition.

3. Usage of net banking Vs mobile banking:

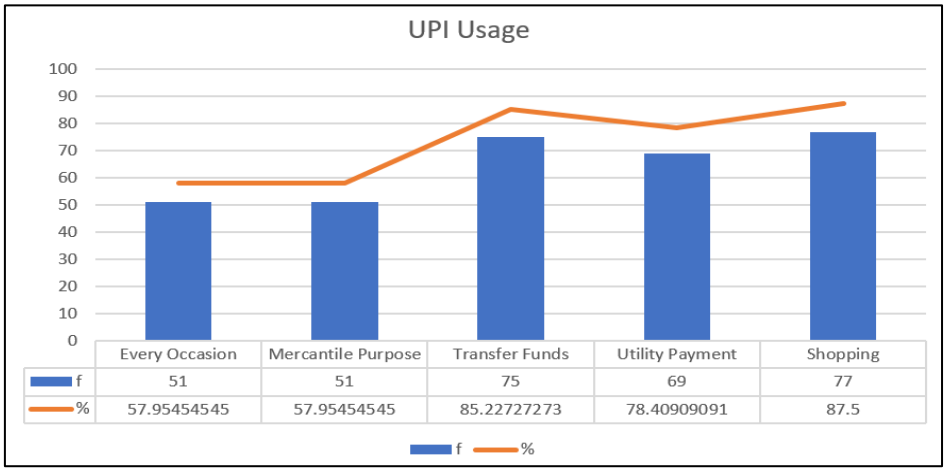
Graph 1 illustrates the purposes for which respondents used net banking and mobile banking. Mobile banking was predominantly used for viewing account details

(89.77%), money transfers (89.77%), utility bill payments (79.54%), and ticket booking (68.19%). Net banking usage for these purposes was also notable, with 70.45% using it for account details, 69.32% for money transfers, 62.5% for utility bill payments, and 48.86% for ticket booking.



Graph 1: Usage of Internet Banking and Mobile Banking (Source: Primary Data)

4. UPI Usage:



Graph 2: UPI Usage (Source: Primary Data)

According to primary data, as seen in *Graph 2* UPI is most frequently used for shopping, with 87.5% of respondents preferring it for this purpose. Additionally, 85% use UPI for fund transfers, while 78% use it for utility payments. More than 50% of respondents also use UPI for mercantile transactions and other financial activities.

5. Education-wise usage of Digital Banking Services:

Table 1 highlights the correlation between education levels and digital banking usage. Among postgraduates and PhD holders, 78% use digital banking services, while 22% do not. Among graduates, 66% are users, whereas 34% are not. For matriculation and higher secondary respondents, only 30% use digital banking, with 70% abstaining.

Similarly, among other educational backgrounds, 40% utilize digital banking, while 60% do not.

Digital Banking Service Usage	Yes (f)	%	No (f)	%	Total
Post Graduation and PhD	25	78.125	7	21.875	32
Graduate	27	65.85366	14	34.14634	41
Matriculation and Higher Secondary	3	30	7	70	10
Other	2	40	3	60	5
Total					88

Table 1: Education-wise usage of Digital Banking Services (Source: Primary Data)

6. Correlation Among Age, Education, and Digital Banking Usage:

Primary data analysis reveals the following significance ('P') values:

- **Age and Internet Banking Usage:** 0.015
- **Age and Mobile Banking Usage:** 0.002
- **Education and Internet Banking Usage:** 0.023
- **Education and Mobile Banking Usage:** 0.266

The null hypothesis is rejected for correlations between age and internet banking, age and mobile banking, and education and internet banking, indicating a significant relationship. However, for education and mobile banking usage, the null hypothesis is accepted, signifying no significant correlation.

FINDINGS

The study indicates a consistent rise in internet banking users, whereas mobile banking adoption has seen fluctuations. Mobile banking is used more frequently than internet banking for routine financial operations. There is a significant correlation between age and internet banking usage, age and mobile banking usage, and education and internet banking usage. However, education does not significantly impact mobile banking usage. UPI transactions are primarily used for shopping and fund transfers, but they have not yet been fully adopted for all financial transactions. The study also confirms that higher education levels correlate with increased digital banking usage. Lower education levels correspond to higher rates of non-usage, indicating a direct relationship between education and digital banking adoption. Mass communication is the most effective knowledge source for individuals aged 26 to 50, while word of mouth significantly influences those aged 26 and above, including the 51+ age group. Self-learning is an effective knowledge source for those below 50, whereas the demo process is beneficial for individuals below 25 and above 51.

SUGGESTIONS

To promote digital equality, policymakers should tailor interventions across all age groups, ensuring inclusive financial technology adoption. Providing structured knowledge at an early age is key to reducing the digital divide. These findings align with prior research by Serin Peter (2024)[42] , Aihui Chen (2017)[3] Nandru P. (2024)[34] Friemel (2014)[24] Alexander JAM van Deursen (2013)[5] Eszter Hargittai (2008)[21] and Dr. Jaspreet Dahiya (2022)[19]

CONCLUSION

Individuals acquire knowledge through their social environment via mass media, word of mouth, self-learning, or demonstrations. Middle-aged, well-educated individuals exhibit higher adoption rates of digital banking services. Digital inequality exists due to disparities in age and education levels. Younger generations can help bridge the gap between institutions and customers through effective communication and engagement.

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