

INNOVATIONS IN BANKING

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ABSTRACT

Banks create different services for the fulfillment of customer needs. The banker must be able to provide these services as and when demanded by the customer. Services are separately identifiable, essentially intangible activities. Services involve transfer of some intangible benefits that result from the activities of a service provider. The perception of the standard of the service is influenced by the satisfaction or dissatisfaction derived from the bank service. So, customer satisfaction is influenced by the perception towards the bank service. Perception is influenced by the standard, price, individual's personal spirit and also the opinions of the members of the family. In the Retail Banking innovation is one among the most sources of competitive advantage and essential for the bank's growth. Innovation is about finding an improved way of doing something. An innovation must add value to customers to motivate them to buy or use the service or perceive an improvement. Innovation in banks is concentrated on service delivery instead of products enabling banks to strengthen and sustain long-term relationship with customers. Banks must recognize the necessity to eliminate transaction related problems and be told ways to sort these problems. Customers are awake to the convenience of innovative retail banking services but less number of them has enrolled in internet banking due to security issues. So, there's a desire for banks to know customer behavior patterns before they will introduce effective innovations. Innovations must be targeted to attend to customer behavioral issues and not just add on channel to conduct business.

KEYWORDS: *Banking, Economy, Efficiency, Technology, Impact, Communication.*

Introduction

The role of the web is laudable in the Indian banking system. It's changed the way the services were offered during the 1990's to the current day of banking. Many consumers are conscious of the varied benefits derived from the usage of internet banking but less numbers have enrolled in it. These services have huge impact on the customer's lifestyles but customers don't seem to be convinced due to poor security and privacy problems. Transaction specific uncertainty may additionally occur due to the distant and personal nature of the net banking transaction. Government also cannot monitor the transactions. Samples of such transactions are leaking of customer's information, presenting wrong information regarding services. The particular fact is just a little segment of consumers trust the internet for his or her banking purpose. The whole security system of the banks depends on trust in one form or the opposite. Trust signifies a positive belief about the perceived dependability, reliability and confidence in a very particular person, object or process. Customer's trust is a vital factor if the banks expect customers to use their websites for his or her banking needs. There's abundant evidence that trust in the online environment is a crucial element of electronic commerce dealings and this idea has been highlighted in previous research. In innovative retail banking services like internet banking customer information is taken into account as a vital factor and value of security. There's also a requirement to guard the consumers from fraud. So, there's a requirement for a strict regulatory framework. If there's no risk and actions are often gaga guarantee, confidence, then trust isn't involved. This is the reason why innovation is the most need of today's Banking world. Yiu.et.al (2007) have applied the TAM (Technology Acceptance Model) with the addition of two constructs namely, personal innovativeness and perceived risk. Majority of the studies conducted earlier haven't tried to attach the trust gained and its relationship with perceived risk. The

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research findings confirmed that these two constructs had a positive relationship to adopt internet banking. Continuous innovation is of paramount importance for banks to form a distinct segment for themselves. Technology on one hand can simplify the working mechanism of the services and understanding for the customer or create difficulties. This could be one of the explanations why most of the bank customers refrain from utilization of innovative retail banking services. Hence it's important to test what quite value the new innovation adds to users. Innovative retail banking services are a comparatively new phenomenon with enormous potential, there's a robust must identify the factors that influence the effective usage of those services. Effectiveness of the banking service is measured by repeated use. Repeated usage successively is connected to customer satisfaction towards banking services.

Role of Banks in Economy

The Banking portfolio of India consists of Nationalised Banks, Public Sector Banks, Development Banks, Cooperative Banks and Regional Rural Banks. The new phenomena as introduced by RBI is little Finance Banks and money Banks. There's no need to tell to anyone how banks work. For laymen it's simply accepting deposit and lending the cash. But this not correct if we talk in terms of economy. Their function is ideally to channelize the savings of country (i.e. its citizens) through how of investment and loans to industries, businesses and after all to government. Banks plays a significant role in connecting those that has capital with them with people who need it. Since the funding need of individuals get fulfills they pays a decent amount of interest and consequently banks pays handsome returns to depositor and by this fashion it creates new demand deposits and buying power of country automatically increases. In the last 2 decades the sphere of the banks isn't limited to metropolitan cities but extended to almost every corner of the country. Around 30 to 35 percent population of india lives in metros and concrete areas. With the strong increased emphasis of Development Banks (Like NABARD, SIDBI) the full economy is diverted in industrialization and business pathway. These banks plays multiple roles and helped in promoting, nurturing, supporting a good range of activities as driven drivers of commercial Development. They also facilitate interchange and out of the country in various other ways like by providing bill discounting facility or fund transfer internationally extra.

Innovations in Banking

Various latest innovations in Banking Sector are as follows:

- **Biometrics Technology:** Biometric technology is any means by which someone is uniquely identified by evaluating one or more distinguishing biological traits. Biometric identification includes fingerprints; DNA, face, hand, retina and ear features. Biometrics systems could end the requirement of password and PIN code. Consistent with the BBC, Hongkong and Shanghai Banking Corporation (HSBC) is launching voice and touch recognition security services in the UK. British banking firm Barclays also upped security in 2014 – offering finger vein scanning for authentication of huge transactions.
- **In-Car Apps:** Spanish financial organisation Caixa Bank has created the primary mobile banking app which will be accessed while driving, using voice control functionality. The technology utilized by CaixaBank app, called Línea Abierta BASIC. Drivers can make balance enquiries and transfers, likewise as locate nearby branches and ATMs, by speaking into their Android device.
- **Biometric Identification Technology:** A automatic face recognition system may be a computer application capable of identifying or verifying an individual from a digital image or a video frame from a video source. There are many varieties of authentication for banks and payment firms to think about though, and Chinese e-commerce firm Alibaba believes that payments might be made with a smile. HSBC is the first bank who adopt the automatic face recognition technology.
- **Smart Watches:** Now banking transactions will be done on smart watch be it an Apple Watch, Android Wear or Samsung Gear. Almost all the financial institutions and Banks like Scotiabanks, or Barclays or StanChart have developed various apps for smart watches only which run on almost all mobile operating systems. However Indian Banks are also now introducing their apps specially designed for Smart Watches.
- **Google Glass Technology:** Banco Sabadell in Spain became one amongst the primary banks to form retail Google app that allowed users to locate the closest ATM, check account balances, and use video conferencing for technical support. It works by super imposing directions to the closest branch onto the Glass screen, providing information such distance and signal of the closest branch, all of which is accessed through the voice recognition system.

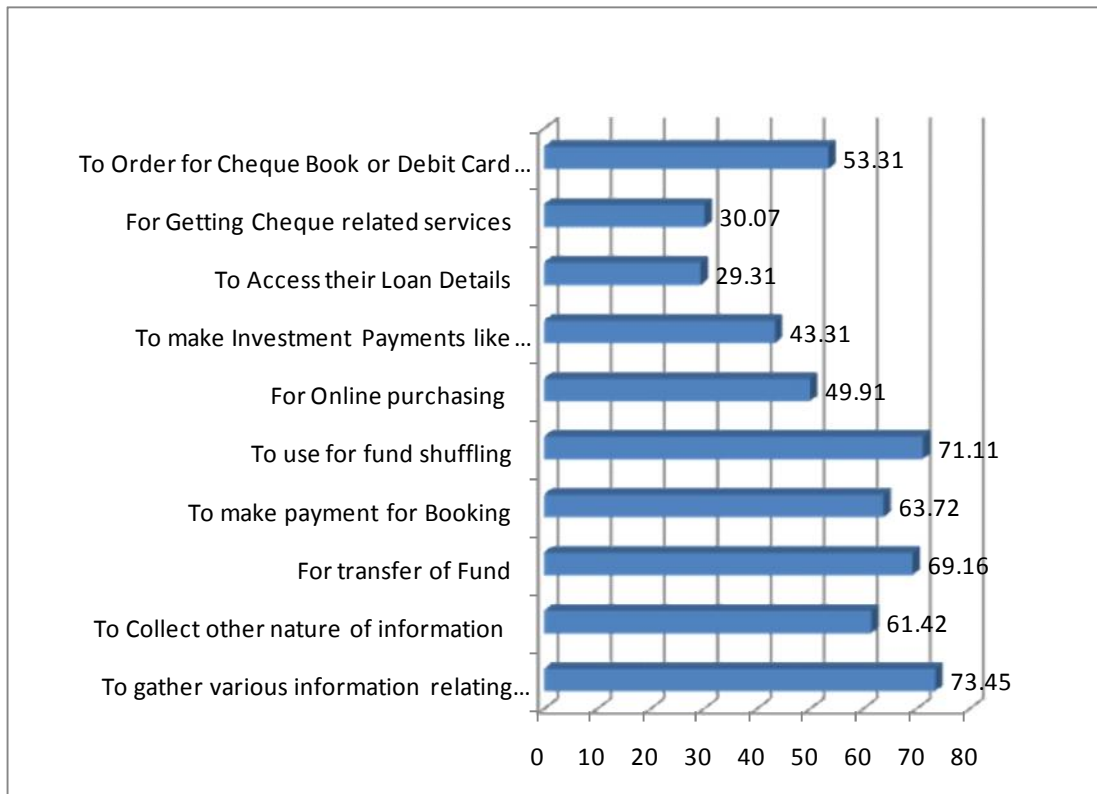
- **Robotics:** Bank of Tokyo-Mitsubishi UFJ took a primary step toward employing nonhuman staff, with the introduction of a customer service humanoid robot at its flagship Tokyo outlet. These robots can answer basic customer service questions in 19 languages, additionally as analysing customers' facial expressions and behavior. In India, the number one private Bank which is ICICI Bank has introduced robo software. These robos are overtaking around 12 lakhs and above transactions everyday which accumulates around ten percent of total transactions of the banks.
- **Augmented Reality (AR) Apps:** Augmented Reality (AR) may be a method of enhancing and improving your view of the 000 world using different technologies. Australian Bank Westpac announced the discharge of an augmented reality app for mobile devices.
- **Beacon Technology:** Bluetooth Beacons installed at banks to integrate physical and mobile channels, to make a replacement sort of interaction and effective commercial communication and to deliver to the consumer a positive and personal experience. Barclays is one in every of the primary bank to use this technology.
- **Oculus Rift:** Rift is advanced display technology combined with its precise, low-latency constellation tracking system enables the feeling of presence. The US bank has been testing the utilization of Oculus Rift headsets at its Digital Labs in metropolis, offering customers the flexibility to virtually enter a branch and speak to a teller face to face.
- **Crypto Currencies:** A cryptocurrency is a medium of exchange like normal currencies designed for the aim of exchanging digital information. It is a kind of digital currency created which uses various encryption techniques. Bitcoin is the most famous. South Africa's financial institution is open to crypto currencies and block chain, consistent with new statements from its governor. In keeping with a recent media report, the banks that are opening crypto currencies include UBS, BNY Mellon, Deutsche Bank and Banco Santander.
- **Computer Science (AI):** computing is a vicinity of engineering science that emphasizes the creation of intelligent machines that employment and reacts like humans. Computers can perform activities like speech recognition, Learning, Planning and Problem solving with AI. Swiss banking giant UBS entered into an advertisement agreement with software vendor Scream, which crunches huge volumes of knowledge a few client's behaviour to supply them detailed, personalised information.
- **Cheque Truncation:** Cheque truncation is the conversion of a physical cheque into a substitute electronic form for transmission to the paying bank. Cheque truncation reduces the physical movement, time and value of processing the cheque clearance system. Britain with Barclays and Lloyds trialing the tech, allowing payment information to be deposited digitally employing a mobile device.

Results and Analysis

The Below table indicates the various purposes for which above mentioned innovation are used and their mean, Standard Deviation and Coefficient of Variation along with their Mean Score.

Purpose of Using Internet Banking						
Purpose of the Use of E-Banking		Mean	Std. Dev.	C. V.	Mean % Score	Rank
01	To gather various information relating to Account	2.56	1.37	29.07	73.45	1
02	To Collect other nature of information	3.49	1.19	46.18	61.42	5
03	For transfer of Fund	2.98	1.53	41.33	69.16	3
04	To make payment for Booking	2.81	1.91	55.41	63.72	4
05	To use for fund shuffling	4.02	2.92	81.81	71.11	2
06	For Online purchasing	2.11	1.26	47.66	49.91	7
07	To make Investment Payment like Mutual Funds	1.51	1.41	66.61	43.31	8
08	To Access their Loan Details	1.41	.96	75.68	29.31	10
09	For Getting Cheque related services	1.37	1.00	81.18	30.07	9
10	To Order for Cheque Book or Debit Card or Bank statements	2.03	1.43	72.35	53.31	6

As we will see in the above table that maximum use of E-Banking is for the aim of Gathering various information regarding account which may well be associated with varied nature of services. People also use E-Banking for Transfer of Funds and for payment of varied Booking likes rail and roadways ticket or Flight Bookings. However the smallest amount use is for accessing the small print of the Loan. But more or less the E-Banking is employed by customer and users for style of nature of services and hence this is often becoming the necessity of the day. supported above conclusions it's now clearly says that both the null hypothesis i.e. there's no Difference in the level of use of E-Banking for informational and transactional purposes and also the extent of use of E-Banking services isn't in the slightest degree impacted by the arena, or styles of user, level of data of users and their experience of banking are rejected. It's employed by all reasonably users and for all the needs.



Conclusion

The future of Indian bank looks not only exciting but also transformative. India's banking sector could become the fifth largest banking sector in the world by 2020 and therefore the third largest by 2025. In future, technology will make the engagement with banks more multi-dimensional still develop and expand banking services. Indian banks deployed technology based solutions to lift revenue, enhance customer experience, optimize cost structure and manage organisation risk. However, there's a large chance in the technology implementation capability across different players of the industry. There has been a wave of innovation in the financial sector in recent years as banks realize the requirement of digital technologies like mobile, wearable, analytics and tele presence to satisfy fast-changing demands from customers. To conclude, Banks should understand that survival in the new e-economy depends on delivering all of their banking services on the web with help of the newest technology. From the above discussion it's clear that the majority of the foreign banks adopted the new technology very before Indian banks. The technological advancement in banking sector is made effective only if a straightforward, flexible and modular approach is taken into account and implemented in Indian Banks. Hence to make sure the need of increase in customers in banks, they will have to make an advancement and innovation in their technology and follow the mechanism of digitalization with more willingness and enthusiasm.

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