

FUTURE OF SELF SERVICE TECHNOLOGIES (SST) IN INDIAN RETAIL BANKING

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ABSTRACT: Self Service Technology (SST) is a required feature in retail banking industry. The interface facilitates communication between human and machine is important in our daily lives as a result of the swift technology advancement. For many companies, the idea of self-service technology seems like a win-win proposition. Kiosks, websites, mobile apps, and other self-service technologies now let service businesses streamline transaction processes, reduce overhead, and potentially increase revenue — all while giving the customer more control over the service process. Self-service technologies are often implemented with the expectation that customers want to use them and will happily explore them. In reality, however, many customers are hesitant to use a new self-service technology, especially if it departs from the existing script of how the service is supposed to progress. The physical placement of a self-service technology within a retail outlet affects its convenience, experts say. Self-service technologies located in poorly accessible or low-visibility locations are often ignored by customers because of their perceived inconvenience. Successful self-service technologies will interrupt the flow or line of sight of customers. If the convenience of using a self-service technology is made evident, trial and adoption can happen much more quickly.

Keywords- Self Service Banking Technology; Current Trend; Effective Utilization; Pros and Cons.

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Introduction

Indian consumers rank highest in the world in terms of their demand for self-service technologies like ATM, Kiosk, M-commerce or E-commerce etc. For more than a decade Indian service sector has acted as a major force for the growth of Indian economy. Services all over the world have been effectively deploying technology as an innovative resource to achieve speed, efficiency, cost reduction, customer convenience and competitive advantage. Self Service Technology is the ultimate form of consumer involvement in service production using facilities or systems provided by the service provider.

What is SST (Self Service Technology)?

SSTs are technological support or interfaces through which customers can access the services without the help of the service providers or service employees. One of the most familiar examples of SST is using ATM (automated teller machine) for various bank transactions.

Interface Purpose	Telephone/Interactive Voice Response	Online/ Internet	Interactive Kiosks	Video / CD*
Customer Service	<ul style="list-style-type: none"> • Telephone Banking. • Flight Information. • Order Status. 	<ul style="list-style-type: none"> • Package tracking. • Account information. 	<ul style="list-style-type: none"> • ATMs. • Hotel checkout. 	
Transactions	<ul style="list-style-type: none"> • Telephone Banking. • Prescription refills. 	<ul style="list-style-type: none"> • Retail purchasing. • Financial transactions. 	<ul style="list-style-type: none"> • Pay at the pump. • Hotel checkout. • Car rental. 	
Self-Help	<ul style="list-style-type: none"> • Information telephone lines. 	<ul style="list-style-type: none"> • Internet information search. • Distance learning. 	<ul style="list-style-type: none"> • Blood pressure machines. • Tourist information. 	<ul style="list-style-type: none"> • Tax preparation software. • Television/ CD-based training.

Private place interaction
Public place interaction

Types of SSTs on base of interface (Meuter, Ostrom, Roundtree, Bitner, 2000)

In rural India the penetration of SST in service sector is limited to internet banking, railway ticket reservation and accessing some Government's services through mobile phones.

Technology readiness & digital divide in India

Technology readiness has an impact on adopting technologies. Adoption of SST needs consumer's involvement, therefore the perceived benefit for using SST as well as the attitude of consumers towards it plays a major role in its adoption. Consumers face several psychological barriers that paralyze their desire for adoption of new innovation. These may be perceived risk, changes in current practices and cultural barriers. Many of the Indian consumers like to interact with people while getting services, whether it is withdrawing money from bank, shopping in a store or checking in airport physically. Apart from personal factors, technology adoption is also affected by the technological infrastructure of the country in terms of electricity, IT penetration, teledensity and internet industry. Tremendous growth of information technology and telecommunication has fuelled the gap between the privileged and underprivileged section of the society in India.

Some successful technology enabled projects which have reached to masses in India

Computerized railway reservation system- This is one of the most frequently used internet based services which has benefited the common men in India.

ATM & Phone banking- The penetration as well as the growth of ATM banking is very high in India. Even in a very remote village a man in a dhoti withdrawing money from ATM has become a common scenario. As per RBI report 2014, the compound average growth rate of ATM in India is

25%. Most of the banks are offering mobile banking technology enabled services which include mobile payment like transfer of funds, payment of bills and other payment services.

E-choupal- ITC has introduced this program in 2000 which helps to connect farmers via internet for providing various services like procuring quality seeds, agricultural products, pesticides etc. as well as aqua cultural products. It gave a common platform to the farmers to get various updates on current market rate, weather forecasting. More than 4 million farmers got benefited by e-choupals with 6500 access points.

Internet Saathis- A program launched in July, 2015 by Tata and Google to reduce the digital gap in India. A group of women, equipped with smart phone, tablets and trained in internet usage aim to help other rural women to take the advantage of ICT in India's interior. This program is trying to link with Centre's digital initiatives and schemes. Also to reach the facilities of e commerce a proposal with the major player like Amazon, PayTm and Snap deal is going on.

Akashganga- This is dairy information service kiosk used by the milkmen in Anand, Gujrat. It helps to generate id to each milkman and help them to get payslip, weigh the fat content of milk and provide information on many other animal husbandry related issues. This IT enabled service has been implemented at around 600 locations for the members of milk cooperative being connected. This system is used 365 day a year.

Akshaya e-centres- This is technology enabled service in Kerala which give ICT access to all section of society even in a remote area. It provides information on job opportunities, training in IT literacy and help to generate overall economic growth.

Bhoomi -As a part of Government of India initiative, Karnataka Government has set up a it enabled National Information Centre called Bhoomi, in 1991.Over the years this software has helped thousands of farmers to generate the records of land ownership.

Mobile Apps- A recent survey of Eriksson consumer lab has given a report saying that Indian spend on an average three hours a day with their smart phones. They spend time with this gadget for messaging, shopping, watching cricket or news, or listening music. Usage of m-wallet, booking cab or movie tickets, ordering food from restaurants are some other categories where the mobile apps are used frequently. Though some of the mobile-app services are limited to either cities or towns.

SST channels are classified into 3 main categories based on their purpose namely customer service, transactional and self help. Customer service facilities include; telephone, flight information, order status, package tracking, account information, ATMs and hotel check out. Transactional such as mobile banking,prescription refills, retail purchasing,financial transactions,pay at the pump,hotel checkout and car rental.Self- help services would include Information telephone lines, internet information search,distance learning, blood pressure machines and tourist information.

Self-Service Technology and Customer Satisfaction

As customers become more sophisticated, it becomes essential to consider the use of technology to respond to their continuously changing needs. Banking is an industry which is highly involved with the customers. Customers in developing economies seems 14 to keep the "technological factors" of services as the yardstick in differentiating good and bad services and the human factor – the employees seem to play a lesser role in discriminating the quality of service for banks. The variation

in services offered by the banks develops the excellence for service quality. Banking is no longer regarded as a business dealing with money transaction alone, but it is also seen as a business related to information on financial transaction.

Customers whether at the corporate level or at retail level have always been important for the banks. As SST is becoming more prevalent, so level of customer satisfaction is also changing the scenario of technological environment. SST plays a significant role in providing better services at lower cost. Several innovative SST such as Automated Teller Machine (ATM), Internet banking, Smart cards, Credit Cards, Mobile banking, anywhere-anytime banking have provided number of convenient services to the customer. So as the service quality improves, the probability of customer satisfaction increases which in turn increases the mutual understanding, customer retention and a bond of trust between customer and bank. The banks which are providing these services at large extent to customers are more reputed in the eyes of customers. SST has revolutionized traditional banking systems because it has reduced the cost of transaction processing, improved the payment efficiency, financial services and improved the banker-customer relationship.

Self-service technologies are defined as services that are performed by customers themselves using various types of technological innovations, such as ATMs, the Internet, touch screens, and interactive kiosks. The technological interfaces that enable customers to produce a service independent of direct service employee involvement. Customer satisfaction is defined as an evaluation of perceived discrepancy between prior expectations and the actual performance of the product

6 Technology Trends That Will Transform Banking In 2017

Today's digital age and hyper-connected environment requires banks to re-imagine their business continuously, and Indian banks are leading the pack when it comes to transforming from digital to truly digital. The year 2017 will be no different for the Indian banking sector; there will be growth fueled by innovative initiatives such as Unified Payments Interface (UPI) and technology. Our top picks for major technology trends that will reshape Indian banking are as follows:

1. Open banking is the new normal : Open banking—a connected ecosystem for financial and non-financial services with multiple underlying service providers—is the future of banking. The launch of UPI by the National Payments Corporation of India (NPCI) has thrown open the gates for innovation in the open banking space. UPI will empower payment service providers to create state-of-the-art products/offers without being limited by the underlying account relationships. Customers will be given the flexibility that they desire and a unified interoperable interface will allow all service providers to innovate for better customer experiences.

2. Banking on the cloud first strategy: Progressive banks are already making strides in cloud adoption. Disruptive technologies that are changing the face of business—Big Data, blockchain, artificial intelligence (AI), IoT—will be leveraged using cloud computing. Indian banks are coming around to the idea that the business agility provided by cloud outweighs the concerns. Business models for emerging banks and fintechs will also be largely driven by the cloud-first strategy. Demonetisation is pushing India towards a cashless society, and as banks prepare to deal with the increased influx of electronic transactions, cloud will provide banks with the required elasticity to meet these demands.

3. Blockchain and the race to production: As banks try to become more efficient and agile to meet the increasing demands of customers, blockchain will be one of the enablers for re-imagining processes. In 2017, banks will increasingly move some projects from pilot to production and leverage blockchain to automate inter-organisational processes. The recent Emirates NBD and ICICI Bank partnership to launch a blockchain pilot network for international remittances and trade finance is a precursor for advances in this technology.

4. Artificial Intelligence—From sci-fi to reality: Artificial intelligence (AI) has the potential to transform both front office and back office operations with its self-improving programs—at ICICI Bank, for example, software robots have been deployed in over 200 business process functions, reducing the response time to customers by up to 60%. AI has already proven itself in providing seamless differentiated customer experience on digital channels, and security measures with its integration within the banking infrastructure. Intelligent digital assistants are commonplace, and these self-learning programs keep getting better with every interaction. As 2017 progresses, banks will look to explore more proof of concepts to integrate conversational interfaces into their omni channel strategy.

5. More things to bank on: The year 2016 was the year of mobile-first strategy. Indian banks leveraged the increasing adoption of mobile to provide customised offerings on their apps. However, digital technologies are evolving at an unprecedented rate, and so is customer adoption. To keep pace, banks would be required to provide services on a gamut of connected devices and wearables. Apps, while still widely used, are not the only channel for customer interaction. Today we have smart virtual personal assistants on mobile phones that can engage with customers in a more interactive manner. Progressive service providers are taking a lead in enabling their services on these new interfaces—for example, Ola Cabs allows customers to use Siri for cab bookings. In 2017, you could expect Siri to help you move funds and open a new fixed deposit account with your bank. In fact, such services are already enabled by innovative banks globally.

6. Banking architecture simplification: All of these overlying technologies will be built on the bedrock of banking architectural simplification. The new year will see banks move to componentisation instead of the traditional monolithic architecture. In other words, complex architecture will be broken up into smaller bite-sized pieces for ease of deployment and upgrade for specific functionalities. Componentisation will not only increase agility to modernise selectively to keep pace with current technology trends, but also allow for risk-mitigation of projects. Banks will simplify architecture by implementing enterprise-class applications, which will be able to deliver capabilities required across business units and eliminate silos that currently exist. With initiatives like demonetisation, the Indian government has made it clear that India will be yanked away from a cash-based economy. GST rollout will give further impetus to the Indian economy. In 2017, banks will not only have to keep up with the growing expectations of a billion connected customers, but they'll also have to make sure that they are leagues ahead of the emerging competition.

Is Self-Service The Future Of Banking?

Modern banking crosses the digital divide to connect to customers in new ways, ways that provide information and ways that provide services. Here are four examples that demonstrate how digital signage can improve the customer experience and better meet growing expectations.

Cross-Selling Financial Services – The common task of cross-selling financial services typically falls on tellers' shoulders, which is not the best game plan for positions that have high turnover.

Fortunately, digital signage provides a platform that can prime customers' interests and create awareness before having that conversation.

Customer Experience – Modern banking can facilitate better customer experience by reinforcing the brand—and the atmosphere—that makes the client better informed and more inclined to accept additional services. This can happen through customer engagement with both bank employees and interactive media, bolstering services that directly address and fulfill customers' needs on the spot.

Drive-Through Banking – For approximately 60% of the customers that drive to the bank, the majority use the drive-through to meet their banking needs, which is possibly the most overlooked opportunity to promote and cross-sell customers. Today's digital signage can be easily placed outdoors, providing a reliable, dynamic way to keep drive-through customers informed.

Staff Training – Bank employees can benefit as much as patrons with targeted digital sign messages. Keeping staff up to date with the latest promotions, rates, and industry regulations becomes much easier on a display platform that resides in break rooms and cafeterias. Busy personnel can be reminded of the most important product promotions, rates, and other service offerings that managers want to emphasize. This greatly reduces the time required training staff, and the reinforcement greatly improves retention.

The Introduction of the ATM & the “iPhone Effect”

The first ATM was installed in 1967 by Barclay's Bank in London. Ground-breaking in its introduction of convenience, the technology reshaped the customer experience for banking customers. The positioning and technology applications for ATMs have remained largely unchanged, but users have become increasingly trained on where to find and how to use them.

Over the past 20 years, the “iPhone Effect” has pervaded our lives – smart phones have created consumers looking for technology that is cool, simple and connected. Consumers want to use this technology to do more and more of their daily tasks, and banking is no exception.

Online Banking Changes the Role of the Bank Branch.

Banks realize that the branch remains absolutely critical in establishing relationships with new account holders as well as addressing existing account holders' financial decisions. Customers still want a human interaction when they want it, but the Great Recession has forced the banks to find ways to reduce expenses and offer a better retail experience for their customers.

The Bank Branch of the Future...Today

Enter what everyone in the industry is calling the “Branch of the Future,” except it's happening today: implementing state-of-the-art technology and re-imagined branch design to maximize both the staff and a smaller physical space. Self-service kiosks are an instrumental part of the concept, to allow customers to manage their own transactions with the comfort of an easily-accessible staff member nearby to step in and assist if needed.

So while the traditional teller role is becoming less relevant as automated machines replace many of the tasks they've provided in the past, they will still be needed as they morph into more of a Universal Banker role to provide a more consultative service, like helping customers make important financial decisions.

Traditional ATM vendors are now trying to update their technology offerings to accommodate new services that ATM customers want, like real-time bill payment, check cashing, and issuing teller checks. Their goal is to update technology that was originally created to serve basic, specific, standard

self-service requests: make a withdrawal or make a deposit. To date ATM vendors haven't done much to update their hardware design, which is large, bulky and expensive.

This makes kiosks a welcome addition to the bank branch, featuring much sleeker designs and greater flexibility in self-service offerings than ATMs. Self-service kiosks may not replace ATMs, but they do represent a new way to touch the customer, improve customer satisfaction, increase up-sell and cross-sell, and gain big operational improvements in the branch.

Human resources departments are constantly being challenged to provide quick and easily accessible employee-service. Managers and employees are increasing their demands for the ability to assist themselves especially in the area of benefits.

Pros:

- Available 24 hours a day/7 days a week.
- Accessible to employees whether at work or at home.
- Allows for process standardization.
- Cut down on transaction processing cost.
- Increase efficiency by streamlining processes.
- Increase ability for systems to communicate with one another.
- Environmentally friendly due to reduction in paper use.
- Provide employee service without increasing staff.
- Increase in ability to do complex report writing.

Cons:

- Lose direct interaction with employees.
- Vendor consolidation may lead to unsupported products.
- Online servicing could be a confidential information security issue.
- If not managed properly, could lead to compliance issues.
- Initial training time/resources to get employees using the system.
- Handling any exceptions not accounted for in the self-service application.
- Some employees may not have computer access via their job and/or home.
- Employee willingness/hesitancy to use automated system.
- May have less control over what data changes occur (need to ensure checks and balances).

Video Banking On the Way to Becoming Mainstream

Video banking is nearing an inflection point. With customers interacting with banks digitally via mobile devices, personal computers, kiosks and other form factors, a majority of banks have indicated plans to deploy video banking solutions. Banks and customers should expect video banking services to be a common offering in the not too distant future.

Video banking, however, requires the combination of specific technological components to be effective including a high resolution, high performance across endpoints and variable Internet connections, the ability to meet banks' security standards and the potential to scale rapidly and affordably. Yet, great technology alone does not guarantee success. Banks must create a strategic go-to-market plan that incorporates not only the technology deployment itself, but also training and marketing tactics to ensure both the bank employees and the customers are ready to embrace video banking services. When successfully deployed video banking services not only can contribute to

customer engagement, they can also positively impact customer loyalty and the public's perception of the bank as an innovator.

Currently, solutions exist that have been tested and deployed with great success by large and small banks globally. Selecting the right technology partner with a solid track record of successfully bringing video-enabled services to market will significantly bolster the ease of deployment and ensure a high level of customer acceptance

Conclusion

Self-service technologies have revolutionised the way of delivering services to provide maximum benefits at marginal cost. Across globe the involvement of customers in the service process and adoption of SST in services is showing a continuous upward trend. Automated teller machine, self-service vending machines, e-commerce or m-commerce, interactive kiosks and many other technology driven services provide more fulfilling, easy and convenient services at an optimum cost. With the continuous improvement in IT infrastructure and Government's supports, the digital divide in India can be bridged and eventually the usage of SST in service sector will be adopted by masses of India. "Indians lead global consumers in demand for self-service technology" the survey report once done in urban India, would be true even for villagers living in a corner of India.

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