DETERMINANTS FOR CUSTOMER INTENDED USE OF SELF SERVICE TECHNOLOGIES

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Abstract:

The last decade has seen an increased focus by business world on using modern technologies to deliver their services. The introduction of self-service technologies (SSTs) opens for businesses for the potential of improving productivity and service quality while cutting costs. In fact, introduction of self-service technologies has not been proven to be quite successful. Research on the usage of technology based self services has mainly focuses on antecedents of attitude towards and corresponding behavior intentions to use Focusing on the moderating effects of age, education and gender as key demographic variable. Finally, the conceptual paper is taking support from the literature to exploring the determinants for intended usage and perceived behavior of consumers towards the self-service technologies.

Keywords: Self-Service Technologies, Customer Determinants, Technology Interfaces, Perceived Bahaviour etc.

1. INTRODUCTION

The Rapid acceptance of modern information and communication technologies in day to day business activity is an important for long term trend in the business world given byRust (2001). Consequently, business environment has increasingly considered innovative options for delivering services to their customers (Bobbitt and Dabholkar 2001, Dabholkar, Bobitt and Lee 2003, Quinn 1996). As a result, the mode of service provision and production is increasingly turned towards the use of self service technologies (SSTs), thereby Meuter et al (2005) explained enabling customers to produce a service encounter independent of direct service employee involvement.The infusion of technology is dramatically changing the nature of service encounters which has been traditionally conceptualized as a high-touch, low-tech phenomenon,within technology based self-services, man-to-man interaction is substituted by man-machine interaction said by Bitner, Brown and Meuter (2000). From a customer's

point of view these benefits are reflects mainly by increasing flexibility, greater control, and time savings compared to the traditional service options (meuter et al, 2000). This is surprised toconsider the fact that literature on adoption of technologies within organizations has established the key role played by demographics opined by Morris and Venkatesh (2000). So, in order to explaining the moderating influence of demographic (education level, age and gender) on the attitude formation process. In the context of self service technologies determinants for customer intended usage factors are conceptually describing in this paper.

2. SELF-SERVICE TECHNOLOGIES (SSTs)

Self-service technologies (SSTs) are technological interfaces that enable customers to produce a service independent of direct service employee involvement (Meuter et al., 2000). According to Fisher (1998) SSTs have been implemented in the delivery of service as an aid to the front line of employee who interacts with customer. Going by these definitions, we can infer that these technologies depend on customer's understanding the procedure of use and how to use it in order to make them adopt it. Across various industries, Self service technologies are replacing many face-to-face service interactions with the purpose of making service transactions more accurate, convenient and faster. The emergence and rapid deployment of information technology has lead to the proliferation of Self service technologies. The deployment of SSTs created value for both customers and company.

Some of the Commonly Used Self Service Technologies:

1) Online banking.
2) Travel reservation. (Airlines, Trains, Buses etc)
3) Online auction.
4) ATMs.
5) Online brokerage.
7) Interactive phone.
8) Online ticket purchasing. (Movies, events etc)

Researchers have identified the following three keys to usage of self-service transactions, from the customers' viewpoint:

- Availability- refers to the availability of SSTS across various geographic regions and across different time periods (24 hour ATMs etc.)

- Speed- this factor refers to the speed with which the transactions can be processed by SSTS

- Reliability- refers to the accurate functioning of SSTs over repeated number of times. (Lawrence F. Cunningham, Clifford E. Young and Fames Gerlach, 2009).

3. SELF-SERVICE TECHNOLOGIES (SST's) IN THE INDIAN CONTEXT

In a developing country like India the evolution of self-service technologies (SSTs) has significantly shaped the way customers interact with organizations to create service outcomes. It can be stated that the interpersonal transactions in the services sector have been gradually substituted by the do-it-yourself options. The widespread usage of online banking, shopping, and brokerage demonstrate that technology-based self-service is a critical component for customer-firm interactions.The self-service option not only gives customers more control over the service process but also reduces the work load of service vendors. The benefits associated with self-service have been well-documented in prior research. For example, Bendapudi and Leone (2003) identified that the self-service customer takes more responsibilities than is warranted and tends to place less blame on the service vendor in case of a service failure. Kelley et al. (1990) also stated that involving customer participation will eventually enhance service quality and customer satisfaction.As suggested by Glob arson and Maggard (1991), self-services are differentiated from professional services as those activities performed by customers without the presence of an employee of the organization.

In other words, self-service customers perform service-related activities that otherwise would have been performed by the employee (Adrian Palmer, 1990). Some of the widely used Self Service Technologies:

3.1. E-Banking

3.2. Mobile Banking

3.3.Automated Teller Machines3.4. Credit and Debit Cards

3.5.Online Train Ticket Booking

3.1. E-Banking (or Internet banking or onlinebanking)

It allows customers of a financial institution to conduct financial transactions on a secured website operated by the institution, which can be a retail bank, virtual bank, credit union or building society. The precursor for the modern home online banking services were the distance banking services over electronic media from the early 1980s. The term online became popular in the late '80s and referred to the use of a terminal, keyboard and TV (or monitor) to access the banking system using a phone line. Online services started in New York in 1981 when four of the city's major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotext system. To access online banking, the customer would go to the financial institution's website, and

enter the online banking facility using the customer number and password. Some financial institutions have set up additional security steps for access, Online banking facilities offered by various financial institutions have many features and capabilities in common, but also have some that are application specific.

The common features fall broadly into several categories:

A bank customer can perform non-transactional tasks through online banking, including: -

- viewing account balances
- viewing recent transactions
- downloading bank statements for example in PDF format
- viewing images of paid cheques
- ordering cheque books
- download periodic account statements
- Downloading applications for M-banking, E-banking etc.

3.2. Mobile Banking:

it is a system that allows customers of a financial institution to conduct several financial transactions through a mobile device such as a mobile phone or personal digital assistant the earliest mobile banking services were offered over SMS, a service known as SMS banking. With the introduction of smart phones with WAP support enabling the use of the mobile web in 1999, the first European banks started to offer mobile banking on this platform to their customers. Typical mobile banking services may include:

Account information:

- Mini-statements and checking of account history
- Alerts on account activity or passing of set thresholds
- Monitoring of term deposits
- Access to loan statements
- Access to card statements
- Mutual funds / equity statements
- Insurance policy management

Payments, deposits, withdrawals, and transfers:

- Cash-in, cash-out transactions on an ATM
- Domestic and international fund transfers
- Micro-payment handling
- Mobile & Direct to Home package recharging
- Purchasing tickets for travel and entertainment
- Commercial payment processing

- Bill payment processing

3.3. Automated Teller Machines:

The first Automated Teller Machine (ATM) was introduced in the year 1967 by Barclays Bank in Enfield Town in North London.ATM is designed to perform the most essential functions of bank. ATM's were introduced to the Indian banking industry during 1987 by HSBC BANK in Mumbai. It is operated by plastic card with its specific features. The plastic card is replacing cheque, personal attendance of the customer, banking hours' restrictions and paper based verification. Automated Teller Machines (ATMs) have gained prominence as a delivery channel for banking transactions in India. Banks have been deploying ATMs to increase their reach. As per the ATM statistics computed y the Reserve Bank of India, total number of onsite and offsite ATM's of all Indian Banks are 100042 by July 2012. (Article: Jyotiranjan Hota, February 2013)More people are now moving towards using the automated teller machines (ATM) for their banking needs. According to a survey by Bank net India, 95% people now prefer this modern channel to traditional mode of banking. Almost 60% people use an ATM at least once a week.

3.4. Credit and Debit Cards:

Credit Cards issued by banks are post paid cards. Debit Card, on the other hand, is a prepaid card with some stored value (money). Every time a person uses this card, the merchant's Bank gets money transferred to the merchant's account from the bank account of the buyer. The buyers account is debited with the exact amount of purchases. An individual must open an account with the issuing bank which gives debit card with a Personal Identification Number (PIN). When he makes a purchase, he enters his PIN on shops PIN pad. The Credit Card holders are empowered to spend wherever and whenever they want with their Credit Cards within the limits fixed by the respective banks

3.5. Online Train Ticket Booking:

Indian Railway Catering and Tourism Corporation, abbreviated to IRCTC, is a subsidiary of the Indian Railways that handles the catering, tourism and online ticketing operations of the Indian railways. IRCTC is known for changing the face of railway ticketing in India. It pioneered internet-based rail ticket booking through its website, as well as from the mobile phones via GPRS (General packet radio service) or SMS (Short message service). In addition to e-tickets, IRCTC also offers I-tickets that are basically like regular tickets except that they are booked online and delivered by post. The tickets' PNR (Passenger Name Record) status is also made available by IRCTC website.

As of May 2013, the ticketing site of the IRCTC can handle about 1.2 lakh concurrent connections on web servers and can book about 2000 tickets per minute. Indian Railways plans to spend about 100 crores (US$15 million) to strengthen the website to enable it for booking 7200 tickets per minute. CRIS (centre for railway information system), the technical arm of railways, is involved in

the upgrading of the IRCTC website. According to a senior Railway Ministry official, the average booking per day has increased from 3.67 lakh in 2012 to 4.15 lakh in May 2013. Approximately, 31 crore reserve tickets are booked in a year out of which 55% of tickets are sold through windows, 37% of tickets are booked online and 8% are booked by ticketing agents. IRCTC's highest ever single day booking is 5.02 lakh e-tickets on 1 March 2013.

4. DETERMINANTSFOR INTENDED USAGE OF SST's

According to Meuter et al (2000) perspective the below explaining key factors that leads to satisfaction or dissatisfaction relate to customer use of SSTs are:

4.1) Perceived Usefulness: Refers to theDavis (1989) Usefulness is the subjective probability that using the technology would improve the way a user could complete a given task and has also received a great deal of attention in adoption literature.

4.2) Perceived Ease of Use: Refers to theDavis (1989) Ease of use has been defined as the degree to which a user would find the use of a technology to be free from effort on their part and has been used in many studies.

4.3) Availability:refers to the availability of SST's across various geographic regions and across different time periods.

4.4) Convenience:

Refers to theis undertaken consideration of location advantage technology enabled service.It would also create impact on formulation attitude toward usage of self service technologies.

4.5) Perceived Risk:

Refers to thePerceived risk is considering a multidimensional construct representsa perception about uncertainty about types of losses associated with financial, performance, social, psychological, security and time or convenience loss (Baur 1960, Dowling 1986, peter and Tarpey, 1975).

4.6) Perceived Value:

Refers to theIt is conceptualized as cognitive tradeoff between expected benefits and expected sacrifice associated with adoption of an SST (Dodd et al1991, Zenithal, 1988).In Parasuraman (2000), perspectives contributors and inhibitors of technology readiness.

4.7) Technology Readiness (TR):

Parasuraman, (2000) refers to people's propensity to embrace and use modern technologies for accomplishing goals in home life and at work. The TR construct refers to an overall state of mind resulting from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition toward technologies. The construct is based on four dimensions:

(i)Optimism:

Optimism is defined as a positive view of technology and a belief that technology offers people increased control, flexibility, and efficiency. It captures the general feeling that technology is a good and positive thing

(ii)Innovativeness:

Innovativeness is defined as a tendency to be a technological pioneer and an opinion leader. It represents the degree to which a person is a trail-blazer in trying new technology-based products or services and an opinion leader on technology related issues.

(iii) Discomfort:

Discomfort refers to a perceived lack of control over technology and a feeling of being overwhelmed by it. This construct measures the degree to which people have a general prejudice against technology-based products and services.

(iv) Insecurity:

Insecurity is defined as distrust of technology and skepticism about its ability to work properly. It focuses on people's degree of trust in technology-based transactions. Optimism and innovativeness are positive drivers of TR, encouraging customers to use technological products and services and to hold a positive attitude toward technology. Discomfort and insecurity are negative drivers, making customers reluctant to use technology.

Literature suggest that Dabholkar (1994,1996) identified control, performance, need for human interaction, reliability, speed as critical variables in the usage of SSTs and Meuter and Bitner (1998) found support, accuracy, performance, recovery from error as important variable in the usage of technologies under certain circumstances.

4.8) Identified Control:

Refers to the level of control over transactions is considerable aspect for intended use of self service technologies. Level of education is increased the awareness of customers also getting high which leads to the forming attitude toward usage of self service technologies.

4.9) Performance:

Refers to the entire performance of SSTs over a period.

4.10) Need for Human Interaction:

Dabholkar (1992) refer to the need for interaction is defined as a desire to retain personal contact with others during a service encounter. Historically, service encounters have involved interpersonal interactions between customers and service providers. These interactions allow for the development of interpersonal relationships between a customer and service provider.

4.11) Reliability:

Refers to the accurate functioning of SSTs over repeated number of times.

4.12) Speed:

Refers to the processing time for single transaction of SSTs over repeated number of times.

4.13) Support:

Refers to the support is provided by initiator is considerable impact ausage phenomenon.

4.14)Accuracy:

Refers to the consistency functioning of SSTs over repeated transactions.

4.15) Recovery from Error:

Refers to if any error is taken place with regard totransactions, itrequires short time for recovery from error is also determinant for usage of self service technologies.

CONCLUSION

In this paper, we are conceptually discussing determinants for intended Usage of SSTs.In the current scenario of increasing penetration of internet, wide spread deployment of ATMs preference of Smart phones by users and developments in information technology, usage of credit cards, debit cards, mobile banking and online ticket purchasing etc. Self Service Technologies (SSTs) are bound to play a significant role in delivering superior customer services. A variety of factors like, knowledge and skills related to usage of SSTs the context in which SSTs are used by customers, the kind of services being delivered through SSTs, the value of transaction involved, etc. influence the outcomes and experiences for the customers, the marketers need to be more focused in assessing the benefits and challenges involved in the usage of SSTs.

In the Indian context where there is a clear digital divide across various cross sections of the society, study of the SST's and their role in delivering superior customer experience for that determinants for customer use of self service technologies is very much needed. It is only when the above issues are addressed; marketers could be successful in delivering superior customer experience to a wide cross section of consumers.

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