



## Bottom of The Pyramid: A Study of the Consumer Behavior Towards Self-Service Technologies in the Banking Sector

### KEYWORDS

Bottom of the Pyramid (BOTP), Consumer Behavior, Self-Service Technologies (SSTs), Banking.

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**ABSTRACT** Purpose: Dr C K Prahlad's BOTP has inspired many a researchers and businesses alike. Our endeavor is to establish whether the intervention of Self Service Technologies at the BOTP will have an impact on the service delivery of Banks. We are examining the consumer behavior towards the SSTs at the BOTP. Methodology/Approach: We have divided a sample size of 150 into 5 segments: Autorickshaw Drivers, Sweepers, Industrial Laborers, Auto Mechanics and Vegetable Vendors. We have further elicited their response through a schedule. Findings: Banking services are demanded by the consumers at the BOTP; however, consumers in this segment do not demand SSTs.

### Introduction

Prahlad (2004, P 4) defined bottom of the pyramid (BOTP) to be that part of the population of the World that earned \$ 2 per day at Purchasing Power Parity rates in 1990 prices (equivalent to \$3.10 in 2006 prices). Prahlad (2004, P4) also states that there are nearly 4 billion people in the World who fit the profile of BOTP. World Population clocked 6 billion in 1999 and 6.7 billion in 2006. By 2050 we are expected to reach 9.1 billion (UNFPA, 2009). On 1st March 2011, the Population of India was a little over 1.2 billion (Census of India, 2011). Since we form a great proportion of World Population and we are a developing nation, it is safe to assume that a large part of the BOTP population described by Dr C K Prahlad resides in India. This presents a huge opportunity to be exploited by businesses across the board, if we are to agree with Prahlad (2004). Not only is there an opportunity to earn profits, but also a chance to support the poor and alleviate them of their existing life-style to a status which will contribute positively to the human development of the entire nation.

Since 1992 (Post LPG), the banking sector has undergone various reforms empowering banks and increasing their capacity to compete, which has been made more pronounced the way foreign banks have entered and brought with them new technologies to service customers (Mahesh and Rajeev, 2008). This has significantly increased the use of SSTs in India (Sengupta and Thomas, 2005).

Against this background the purpose of this paper is to investigate the demand for SSTs in the banking sector at the BOTP. Taking a cue from the description of BOTP defined by Prahlad (2004, P 4), we have selected five categories of workers to assess, the awareness and demand for SSTs and opportunity they present as target markets for banks to focus on them for market development activities. They have been specified in the Methodology section.

### Literature Review

The utilization of SSTs to provide services to consumers replaces the service personnel and puts the consumer in command and responsible for the level of service that they are able to avail (Curran and Meuter, 2005). This creates a number of challenges for the service provider and the consumer. Zeithaml and Gilly (1987) infer that for a certain segment of customers, dealing with bank employees is a social encounter and they would prefer to deal with people rather than machines. Some customers tend to feel anxiety and come under stress as an outcome of technological dealings as it makes them insecure, because they feel more comfortable with a human being to deal with (Mick and Fournier, 1998). Because of these challenges, on many occasions, organiza-

tions have to incur costs to motivate and educate customers to use SSTs (Gronroos, 1990).

However SSTs also have their advantages. Transaction cost incurred by banks because of the use of SSTs is estimated to be 1/6th of manual transactions (Kalacota and Freire, 1997). Since there is no human interference and the services are delivered through technology, there is homogeneity of service output leading to enhancement of efficiency (Zeithaml and Bitner, 2000; Lee and Allaway, 2002). Also, considering high fixed costs structures associated with the banking industry through SSTs, banks are able to access customers who would otherwise be difficult to reach out to (Riivari, 2005). Customers can access the banks services at their convenience, from wherever they want and whenever they want (Bitner et al., 2000). There are several other advantages that have been pointed out, such as: ease of use, convenience, time savings, cost savings, control over service provision, and even entertainment from the use of technology (Curran and Meuter, 2005; Ho and Ko, 2008).

It can be established beyond doubt that SSTs help the banks improve service quality levels and stimulate customer loyalty (Mols, 1998). This is because superior service quality leads to favourable consumer behavior and thus customer loyalty (Rust et al., 1995; Zeithaml and Bitner, 2000; Zeithaml et al., 1996).

Since we have inferred that SSTs and Consumer Behaviour and associated and that quality of SSTs and favourable are directly related, we can assess the implications of SSTs performance ease and quality in terms of customer usage at the BOTP, the related satisfaction and the latent Consumer Behaviour.

### Hypothesis

As discussed in the introduction and the literature review, we propose to conduct the study through the test of the following hypothesis:

- H1: Consumers at the BOTP demand banking Services.
- H2: Consumers at the BOTP are aware of all the four kinds of SSTs provided by banks.
- H3: There exists a demand for banking SSTs at the BOTP to upgrade their life-style.
- H4: The Proportion of consumers at the BOTP, who need SSTs, is high enough to make business sense for banks to provide SSTs to the BOTP consumers.
- H5: If the banks do provide SSTs to the BOTP consumers, they would be able to transact through and with the technology comfortably.

### Research Objectives

The objectives of the research are as follows:

1. To elicit from BOTP consumers whether they need banking services at all or not.
2. To examine the level of awareness of banking SSTs at the Bottom of the Pyramid.
3. To assess the level of need to use banking SSTs at the Bottom of the Pyramid.
4. To assess the business opportunity available for banks to provide SSTs at the Bottom of the Pyramid.
5. To study banking transaction patterns of BOTP customers.
6. To analyze the level of technical knowhow at the BOTP to operate SSTs.

**Methodology**

Our data source is primary, which is collected through Interview schedules filled by 5 segments of respondents, which are:

- Auto Rickshaw Drivers
- Sweepers
- Industrial Laborers
- Auto Mechanics
- Vegetable Vendors

**Sample**

The samples have been chosen from the city of Ahmedabad. Sample size is 150. The sampling technique used was stratified sampling. The break-up of the strata are as follows (Table – 1):

Autorickshaw Driver	25
Sweepers	25
Industrial Laborers	25
Auto Mechanics	25
Vegetable Vendors	50
Total	150

Table – 1: Break-up of Sampling Strata

**Data Collection**

Data collection was done with the help of a schedule consisting of 8 questions. The schedule was administered in the field, around the work place of the respondents, with their permission. The auto rickshaw drivers chosen for the study were non-owners or drivers of auto rickshaws which were still under a hire-purchase agreement.

**Findings**

The data collected has been represented here in the form of the following tables:

Segment/Response	Yes	No	Total
Auto rickshaw Driver	16	9	25
Sweepers	8	17	25
Industrial Laborers	13	12	25
Auto Mechanics	15	10	25
Vegetable Vendors	16	34	50
Total	68	82	150

Table – 2: Demand for Banking Services

Segments/Types of SSTs	ATM	Net Banking	Mobile Banking	Telebanking	Total
Auto rickshaw Driver	13	2	4	3	22
Sweepers	7	0	0	0	7
Industrial Laborers	13	6	6	1	26
Auto Mechanics	13	1	4	0	18
Vegetable Vendors	11	6	5	1	23
Total	57	15	19	5	96

Table – 3: Awareness regarding SSTs

Segments/Types of SSTs	ATM	Net Banking	Mobile Banking	Telebanking	Total
Autorickshaw Driver	6	1	2	0	9
Sweepers	5	0	0	0	5
Industrial Laborers	12	4	2	0	18
Auto Mechanics	11	0	2	0	13
Vegetable Vendors	10	0	0	1	11
Total	44	5	6	1	56

Table – 4: Percentage of respondents demanding SSTs

Segment/Response	Yes	No
Auto rickshaw Driver	2	14
Sweepers	4	4
Industrial Laborers	10	3
Auto Mechanics	7	8
Vegetable Vendors	9	7
Total	32	36

Table – 5: Percentage of consumers comfortable with technology to consume SSTs

**Inferences**

Our investigation has revealed that out of the 150 respondents 68 have bank accounts (Table – 2). The awareness regarding SSTs is at 96 out of 600 (150 X 4) possible outcomes (Table – 3). However of the 68 respondents holding accounts with bank, we found that only 56 out of 272 (68 X 4) Possible outcomes were situations were SSTs were being used (Table – 4). And only 32 out of 68 feel comfortable using SSTs (Table – 5).

**Hypothesis Testing**

- H1: About 45% of respondents hold bank accounts. Considering that the respondents are from the BOTP segment, we can safely say that there exists a demand for Banking Services. So, H1 is accepted.
- H2: Only 16% awareness regarding all the four SSTs was observed. Therefore H2 is not accepted.
- H3: Of the account holders only 20% of the four SSTs are being utilized. Again H3 is not accepted.
- H4: Since SST utilization at BOTP is only 20%, it does not make much business sense for Banks to provide SSTs to the BOTP. Therefore H4 is also not accepted.
- H5: Only 47% respondents feel comfortable using SSTs, which means that H5 also is not accepted.

**Conclusion**

We have come to the conclusion that, where banking services do find demand at the BOTP, SSTs are not the favorite among the consumers in this segment. The reasons behind BOTP consumers not demanding SSTs can be researched under another project.

**Recommendations**

Our recommendations to the banks are that they should continue to market banking services to BOTP, however using SSTs as a marketing tool is not recommended.

**Limitations**

The limitation of this study is that all the responses have been collected from the respondents in the geographic boundary of the city of Ahmedabad.

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