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# A STUDY OF THE PERCEPTION AND ACCEPTABILITY OF ELECTRONIC BANKING OF CUSTOMERS OF SELECTED BANKS

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**Abstract:** *Perception is a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment. A motivated person is ready to act. How the motivated person actually acts is influenced by his or her perception of the situation. Perception depends not only upon the physical stimuli, but also on the stimuli's relation to the surroundings field and on the condition within the individual. People's behavior is based on their perception of what reality is, not on reality itself. Perception is understood as the act of seeing what is there to be seen which is influenced by the individual, the object and the situation. Perception is the process by which an individual selects, organizes, and interprets the information inputs to create a meaningful picture of the world. In simple terms, perception is why the same universe is viewed differently by different people. Acceptability relates to the intensity of adoption of a particular aspect. Electronic banking, also known as e-banking, virtual banking and online banking, is a service that allows customers to access their bank information, conduct financial transactions, make deposits, withdrawals and pay bills through the Internet without having to physically visit their bank. The present study was undertaken with an aim of understanding and comparing the perception towards and the acceptability of E-banking by 200 customers of two private and two public sector banks where the customers had been selected through quota sampling in Ludhiana, Punjab (India). The outcome of this process is discussed in this paper.*

***Keywords:*** *Perception, Sensory Impressions, Physical Stimuli, Electronic Banking, Financial Transactions*

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## INTRODUCTION

Perception is a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment. A motivated person is ready to act. How the motivated person actually acts is influenced by his or her perception of the situation. Perception depends not only upon the physical stimuli, but also on the stimuli's relation to the surroundings field and on the condition within the individual. People's behavior is based on their perception of what reality is, not on reality itself. Perception is understood as the act of seeing what is there to be seen which is influenced by the individual, the object and the situation. Perception is the process by which an individual selects, organizes, and interprets the information inputs to create a meaningful picture of the world. In simple terms, perception is why the same universe is viewed differently by different people.

Perception process consists of three stages: Selection, Organization and Interpretation. Selection is the first stage in the perception process in which the stimuli is selected through the senses: sight, sound, smell, taste and touch. Organization is the second stage in which the stimuli (information) are mentally arranged so that a sense can be formed of the stimuli or it can be understood. Interpretation is the third stage in the perception process in which the meaning is attached to the stimuli. Interpretations are subjective and are based on values, needs, beliefs, experiences, expectations, involvement, self-concept and other personal factors.

Banking in India originated in the last decades of the 18th century. The first banks were The General Bank of India, which started in 1786, and Bank of Hindustan, which started in 1790. The oldest bank in existence in India is the State Bank of India, which originated in the Bank of Calcutta in June 1806, which almost immediately became the Bank of Bengal. This was one of the three presidency banks, the other two being the Bank of Bombay and the Bank of Madras, all three of which were established under charters from the British East India Company. For many years the Presidency banks acted as quasi-central banks, as did their successors. The three banks merged in 1921 to form the Imperial Bank of India, which, upon India's independence, became the State Bank of India in 1955.

Internet banking is the name used for new age banking system. Internet banking is also called as online banking and it is a consequence of PC banking. Internet banking uses the

internet as the deliverance channel by which to carry out banking activity, for example, transferring funds, paying bills, viewing, checking and saving account balances, paying mortgages and purchasing financial instruments and certificates of deposits (Haque, 2009). The Framework of the factors which are taken to assess the preference are convenient way of operating banking transactions, flexible virtual banking system, reliability, time factor, real time access to information, transaction cost, online bill payment, security, faster transfers, ease of use, any time access, access to present and historical transaction history, and fund transfers to third party.

## REVIEW OF LITERATURE

Joseph *et al.* (1999) conducted a research on preference of customers out of traditional style of banking and online system of banking. He stated that queue management is very important factor which provides online system edge over traditional banking. One among the important dimensions of e-banking service quality is queue management. This management of queue saves lot of time of customers and also makes banking system a lot easier for them.

Beer (2006) in his study stated that the convenience of online banking is helping people gain greater control of their finances and contributing to changing patterns in cash withdrawal and day to day money management. He stated that internet banking saves lot of time as compared to traditional system of banking and also he said that internet banking is much convenient as compared to traditional system of banking. Saving time is an importance factor which influences the customers prefers to use i-banking: The most popular online transaction through internet banking is funds transfer/bill payment.

According to Christopher *et al*. (2006), E banking has become an important channel to sell the products and services and is perceived to be a necessity in order to stay profitable be successful.

Williamson (2006) stated that online banking is a highly profitable channel for financial institutions. It provides customers convenience and flexibility and can be provided at a lower cost than traditional branch banking. Authenticating customers logging onto their online banking service has become a crucial concern of financial institutions.

According to Broadie (2007), the e- banking is leading to a paradigm shift in marketing practices resulting in high performance in the banking industry. Delivery of service in

banking can be provided efficiently only when the back ground operations are efficient. An efficient back ground operation can be conducted only when it is integrated by an electronic system. The components like data, hardware, software, network and people are the essential elements of the system. Banking customers get satisfied with the system when it provides them maximum convenience and comfort while transacting with the bank. Internet enabled electronic system facilitate the operation to fetch these result.

Salawu (2007) stated that an in-depth analysis would help to understand that internet enabled electronic bank system differentiates from traditional banking operation through faster delivery of information from the customer and service provider. Additionally, it has to be noted that the banking operations does not transfer physical currencies instead it transfer the information about the value for currencies. I-banks enable transfer of information more swiftly on-line.

## NEED OF THE STUDY

Enormous research has been done in foreign countries on the perception and acceptability of E-banking by the consumers. But only a few have been conducted on the perception and acceptability of E-banking by the consumers in Punjab, India. Hence, the present study was taken up on consumers of selected banks in the district of Ludhiana in Punjab (India).

## OBJECTIVES

1. To study the perception of the consumers of selected banks towards E-banking in Ludhiana, Punjab (India).
2. To study the acceptability of the different services of E-banking by the consumers of selected banks in Ludhiana, Punjab (India).
3. To compare the perceptions and acceptability of E-banking between the consumers of private and public sector banks.

## RESEARCH METHODOLOGY

For the present study both exploratory and conclusive research methods were used. The conclusive research method here is descriptive in nature and the research design is single cross-sectional. In this study primary data has been collected through survey method. The research was conducted with the help of a questionnaire measuring the perceptions and acceptability of E-banking by the consumers

In the present case the target population consists of the consumers of banks in Punjab (India). The unit (Kotler, 1997) in the study includes two private sector banks and two public sector banks in District Ludhiana in Punjab (India) while the elements are the customers of these banks. Quota sampling was used for the present study, whereby, 50 customers from each of the four banks were covered.

The respondents were personally administered the questionnaire and primary data was collected. The questionnaire consisted of two parts, namely, Part-A and Part-B. Part-A of the questionnaire consisted of solicited information about the profile of respondents like their age, educational background etc. Part-B consisted of 14 questions out of which six related to perception regarding E-banking and six to usage of E-banking and the respondent had to answer on a five point Likert scale (Malhotra and Dash, 2010) for these twelve statements.

Analysis of data has been done by constructing suitable tables and by using other statistical techniques like mean, standard deviation, and Z-test for proportions.

Percentage method was used to analyze Part-A of the questionnaire. The percentage of respondents was calculated for each category of respondent's profile. Part-B consisted of 14 questions. The answer sheet for this questionnaire was used for scoring. Each question had five options and the respondent had to tick on one of them.

**Table 1- Scores for different answer choices**

| | Score |
|---|---|
| Strongly Disagree | 1 |
| Disagree | 2 |
| Neither Agree nor Disagree | 3 |
| Agree | 4 |
| Strongly Agree | 5 |

## HYPOTHESIS OF THE STUDY

The data was analyzed using the following null hypothesis (Bajpai, 2010).

**Hypothesis**

1. **Ho:** There is no significant difference between the proportions for agreements for various dimensions for the customers of public and private sector banks.

   **$H_1$:** There is a significant difference between the proportions for agreements for various dimensions for the customers of public and private sector banks.

Formula used:

$$Z = \frac{(\overline{p_1} - \overline{p_2}) - (p_1 - p_2)}{\sqrt{(p_w \times q_w)(\frac{1}{n_1} + \frac{1}{n_2})}}$$

where:

$\overline{p_1}$ = Proportion of sample 1

$\overline{p_2}$ = Proportion of sample 2

$p_w = \frac{x_1 + x_2}{n_1 + n_2}$ = Estimate of population proportion

$q_w = 1 - p_w$

$n_1$ = Size of sample 1

$n_2$ = Size of sample 2

$p_1$ = Proportion of population 1

$p_2$ = Proportion of population 2

## LIMITATIONS OF THE STUDY

To understand the research findings in their right perspective, it is necessary that limitations of the study be mentioned. The present study may have suffered from the following limitations.

i) Size of the sample selected for research may perhaps be considered as small, hence; the result of this study might not be fully reliable for generalization for the whole country.

ii) Since the questionnaire is comparatively lengthy and the nurses normally busy, there are chances that information obtained in some cases might have deviated from actual.

iii) The respondents were asked to give their practical views and not the ideology, but the personal biases of the respondents might have affected the results.

## RESULTS AND DISCUSSION

The outcome of number of respondents has been categorized in categories such as age, educational qualifications, total work experience, and levels of occupation.

**Age**

Age is the first and a very important factor to analyze the perception towards and the acceptability of E-banking by the customers. In this study the age of respondents has been divided into four categories.

Table 2 indicates that the largest group for respondents belonged to 30-40 years (44 percent) while the smallest group is for 50 and above (11 percent) year categories.

Almost half the customers of private sector banks and four-tenth of the customers of public sector banks have an age category of between 30 and 40 years. This is followed by the 40-50 years category for both types of banks.

**Table 2 - Frequency distribution of customers in terms of age.**

| Age (Years) | No. of Respondents of Banks | | Total |
|---|---|---|---|
| | Public Sector | Private Sector | |
| Below 30 | 16 (16) | 18 (18) | 34 (17) |
| 30-40 | 40 (40) | 48 (48) | 88 (44) |
| 40-50 | 30 (30) | 26 (26) | 56 (28) |
| 50 & above | 14 (14) | 8 (8) | 22 (11) |
| Total | 100 (100) | 100 (100) | 200 (100) |

Note: The figures in brackets indicate the percentages.

**Educational Background**

Educational background is a very important factor, which affects the behaviour of an individual to a very large extent. Table 3 indicates a majority of respondents (nearly 75%) were found to be having an educational level of graduation.

Furthermore, among the customers of public sector banks graduates were followed by undergraduates and postgraduates in that order. Among the customers of private sector banks, graduates were trailed by postgraduates on second position.

**Table 3- Frequency distribution of customers in terms of educational qualification**

| Educational Qualification | No. of Respondents | | Total |
|---|---|---|---|
| | Public Sector | Private Sector | |
| Undergraduate | 18 (18) | 08 (10) | 26 (13) |
| Graduate | 72 (72) | 76 (76) | 148 (74) |
| Postgraduate | 10 (10) | 16 (18) | 26 (13) |
| Total | 100 (100) | 100 (100) | 200 (100) |

Note: The figures in brackets indicate the percentages.

**Level of Occupation**

Table 4 shows that the number of customers employed with the private sector is the largest of the group.

**Table 4 – Frequency distribution of customers in terms of level of occupation**

| Level of Occupation | No. of Respondents | Percentage |
|---|---|---|
| Self employed | 55 | 27.50 |
| Service class (government) | 35 | 17.50 |
| Service class (private) | 110 | 55 |
| Total | 200 | 100 |

**Analysis of Perception and Acceptability of E-banking**

**1. Awareness of E-banking**

Table 5 shows that all the customers, irrespective of their affiliation, are aware about E-Banking.

**Table 5 – Awareness of E-Banking**

| | Public Sector Banks | | Private Sector Banks | |
|---|---|---|---|---|
| | Number of respondents | | | |
| | Aware | Not Aware | Aware | Not Aware |
| | 100 | 0 | 100 | 0 |
| **Total** | 100 | | 100 | |

**2. Usage of any service of E-banking**

Table 6 shows that all the customers, irrespective of their affiliation, have used some form of E-Banking.

**Table 6 – Usage of E-Banking**

| | Public Sector Banks | | Private Sector Banks | |
|---|---|---|---|---|
| | Number of respondents | | | |
| | Aware | Not Aware | Aware | Not Aware |
| | 100 | 0 | 100 | 0 |
| **Total** | 100 | | 100 | |

**3. Two-Sample Analysis Results**

**Hypothesis**

**Ho:** There is no significant difference between the proportions for agreements for various dimensions for the customers of public and private sector banks.

**$H_1$:** There is a significant difference between the proportions for agreements for various dimensions for the customers of public and private sector banks.

(Variable 1: Customers of Public Sector banks, Variable 2: Customers of Private Sector banks)

**3.1. Perception**

*1) Online money transfers are secure*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.36 | 0.49 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.425 | |
| Z | -1.859516204 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value is less than the critical value, so, do not reject $H_o$

*2) Cheque deposits are faster via ATMs*

The test for proportions is not possible because all the customers feel that cheque deposits are slower through ATMs as compared to directly through bank branches.

*3) Preference for buying gold through ATMs*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.02 | 0.02 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.02 | |
| Z | 0 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value is less than the critical value, so, do not reject $H_o$

*4) Online money transfer is fast*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.68 | 0.87 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.775 | |
| Z | -3.217336551 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value lies outside the region of critical value, so, reject $H_o$

*5) Online problem identification is faster*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.01 | 0.01 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.01 | |
| Z | 0 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value is less than the critical value, so, do not reject $H_o$

*6) Awareness of all features of E-banking*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.15 | 0.2 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.175 | |
| Z | -0.93048421 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value is less than the critical value, so, do not reject $H_o$

### 3.2. Usage of E-banking

*1) Ordering for a draft online*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.02 | 0.13 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.075 | |
| Z | -2.953086643 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value lies outside the region of critical value, so, reject $H_o$

*2) Ordering for an FD online*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.01 | 0.03 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.02 | |
| Z | -1.010152545 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value is less than the critical value, so, do not reject $H_o$

*3) Online electricity bills payment*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.03 | 0.06 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.045 | |
| Z | -1.02328902 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value is less than the critical value, so, do not reject $H_o$

*4) Online telephone/ mobile bill payment*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.02 | 0.11 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.065 | |
| Z | -2.581457788 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value lies outside the region of critical value, so, reject $H_o$

*5) Online insurance payment*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0.03 | 0.15 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.09 | |
| Z | -2.964997267 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value lies outside the region of critical value, so, reject $H_o$

*6) Cash deposit through ATM*

**z-Test: Two Sample for Proportions**

Agreements for the style

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Proportion | 0 | 0.05 |
| Observations | 100 | 100 |
| Hypothesized Proportion Difference | 0 | |
| Estimated Population Proportion | 0.025 | |
| Z | -2.264554068 | |
| z Critical two-tail | 1.959962787 | |

**Result:** Since the calculated value lies outside the region of critical value, so, reject $H_o$

## CONCLUSIONS

As is evident from the discussion, even though there is hundred percent awareness about E-banking and every respondent has used some form of E-banking, the proportions relating to different aspects of perception regarding E-banking i.e. speed of cheque transfers via ATMs, preference of buying gold via ATMs, speed of online problem identification and awareness of all features of E-banking are quite low (the only exception being that online fund transfer is faster and secure). The proportions for online ordering of draft and FD, payment of electricity and telephone bills as well as insurance premium or cash deposits through ATMs are extremely low both for private and public sector banks.

The results of the z-test for proportions show that there is a significant difference for the proportions for one out of six dimension of perception and for four out of the six dimensions of usage of E-banking.

## RECOMMENDATIONS

1. The proportions for all the dimensions of perception regarding E-banking are quite low except for the agreement that online fund transfers are fast and secure so; it is required for the banking industry to change this perception of the customers towards the positive side.
2. The proportions for all the dimensions of usage of E-banking by the customers are extremely low. An attempt by the banks for changing the same should be made by stressing on the benefits of E-banking.

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