

# Financial inclusion through internet banking in rural household in Punjab

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**Abstract**-In banking industry, bank branches are not enough sufficient to provide banking services to cater the needs customer's requirements. Mobile banking and internet banking have provided an alternative means to acquire banking services more conveniently. For availing internet banking services rural household opened the bank account that is determinant of financial inclusion. Internet banking has been increased over last few years. It helps bank to improve their profitability by reducing operational and fixed cost. This research focus on factors that influence the customer decision to open bank account and use internet banking .The data for this study collected through questionnaire from rural population of Punjab district. There are twenty two districts in Punjab. But for this study I have chosen nine district .Out of 265, 227 respondent filled the complete questionnaire. For identifying the factors which impact the rural customer,,s decision for banking services, factor analysis is applied . Three important factor were identified after applying factor analysis.

## Introduction

Financial inclusion is tool for achieving the goal of economic growth of any nation. Now a days, banking sectors has important role for financial goal and inclusive growth. Financial inclusion means to provide the banking services to poor household at reasonable price. Virtual banking has become need of the day . In the era of privatization, liberalization and globalization, change can be considered the constant. Technology has new era of providing the banks' service to customers. Now a days banks are focused on technological innovations for introducing new products and services. The traditional brick -mortar banks are introduced virtual banks in last decade. The latest innovation in software's, computer technology and telecommunications networks has changed the directions of the banks from processing data to information services. Technology changes the concept branch banking to everywhere banking. Ebanking brings transparency of banking transactions and also helpful for minimizing the cost of banking sectors. Through ebanking, banks can reach their customer without bank branch.

The internet services major impact on the electronic banking. By using internet, banking has of geographic constraint and time constraint. Customers can avail all banking service 24x7 and access to their accounts any part of the world. Internet banking and web based technology provide the facility to the customers for doing banking transactions . Internet banking also increased with innovation of web technology . Economic transactions has rapidly increased with internet banking .Now a days , banks have been focused on adapting latest technology and update their services with latest changes .New banking services like internet banking mobile banking and home banking very commonly used these days. computerization of banking operations are the emergence of these new banking services. E-banking refers to a system that facilitate the bank customers to perform banking transactions without visiting banks

### Review of literature

Gupte,Venkataramani and Gupta(2012) examined the determinants that measure the extent of financial inclusion and studied the aspect of index computation. He considered the multidimensional variable that impact the financial inclusion. Authors calculated the Financial Inclusion Index only for India as a geometric mean of four dimensions – access, usage ease and cost of transaction. Bhanot, Bapat and Bera(2012) identified the factors which were important in determine the extent of financial inclusion in remote areas. The study provided suggestive measures for banks to capture the new market and unexplored area. Primary data were collected through questionnaire from the states of Assam and Meghalaya in north-east India. Factors that has significant role for achieving the goal of financial inclusion were identified using a logistic regression model. Results revealed that level of financial inclusion in north-east India was very low. Financial information from various channels and awareness of self help groups (SHGs), Income, and education are crucial factors leading to inclusion. Factors like geographic and availing govt. benefits do not facilitate inclusion. However, recipients of government subsidy in plain areas showed increased level of inclusion. Clemes ,Gan and Du identified the factors that affect the customers decision for Internet banking adoption in the New Zealand banking industry. Multivariate analysis and Factor analysis were used to analyze the data and rank the factors that effect on customers“ decisions to adopt Internet banking. The findings revealed that a user-friendly website, price, perceived risks and Internet access/Internet familiarity marketing communications have an impact on customers“ decisions to adopt Internet banking. The results also revealed that young age group consumers and persons having high income are more likely to adopt Internet banking.

Dhar, Ghalawat and Dhingra studied the various factors affecting the service quality and also the effect of these factors on various demographic variables. The data had been collected from 200 customers from five select banks namely; State Bank of India, Punjab National Bank, HDFC Bank, AXIS Bank & ICICI Banks and analyzed with the help of the SPSS 13 software using data reduction technique i.e. factor analysis, ANOVA and also discriminate analysis. The results of the study indicated that twenty variables may be reduced to seven factors i.e. authentication and authorization, acceptability, security, accessibility, promotional services, competitive advantage, data integrity and ease of use. It is worth noting that customers are concerned with authentication and authorization, acceptability and data integrity as most important factors

for E-banking. The study revealed that there is significant relationship between demographic variables (age, gender, occupation, education). Rehman and Mukul studied the factors that affect the customer satisfaction in Bangladeshi commercial

banks. This study revealed that service factor, management information service, behavioral factor and time management are the important factors which represent customer satisfaction in banking sector of Bangladesh. Management information services is the combination of seven variables such as skilled innovative service, computerized service, staff availability, smooth and Hassel free, and knowledgeable employee, service charge, transparency in-services. In addition, service factor is combination of three variables which are systematic, service infrastructure and cordial, accurate service, customer friendly. AT last timely services and commitment of employee are constitute of behavioral factor . (Gupta, 1999; Pegu, 2000), there has to be enough number of users for services and infrastructure in place to reach a mass. As for internet banking, Joseph et al., (1999) examined the effect of internet on the providing of banking service. Their study identified six factors of electronic banking service quality. These were accuracy and convenience, complaint management and feedback, queue management, customization, accessibility, customization and efficiency,. Lassar et al., (2000) studied the impact of service quality on customer satisfaction in private banks by using the SERVQUAL. They found that customer satisfaction is a multidimensional approach and its dimensions had different impact on the service quality dimensions.

### **Objective of the study**

- To study the role of internet banking in rural area of Punjab for achieving the goal of financial inclusion
- To identify the factors responsible for customer's decision towards opening the bank account and using internet banking

### **Research Methodology**

- Sampling Design- Multistage sampling was used for selecting the sample of study. Sampling have been done in four stages.
- Cultural regions of Punjab state provided the Ist stage of sampling design respectively.
- In first stage and second stage purposive sampling was used to select the Punjab and Districts. Mandals and village was selected randomly at third and fourth stage.
- Nine districts were selected for the study . These districts were Gurdaspur, Amritsar , Jalandhar , Nawanshar, Ropar(rupnagar) Mohali, Patiala, Fatehgarh Sahib and ludhiana.
- Data has been collected from two hundred twenty seven(227) respondent.

Factor analysis is used to identify the factor affecting the rural household customer's decision towards open bank account and use internet banking

### Analysis

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
Saving	3.08	1.335	227
Borrowing	1.67	.815	227
online_shopping	1.58	.876	227
online_payment	1.58	.802	227
fund_transfer	1.45	.685	227
ATM	2.84	1.443	227
DrCard	1.48	.633	227
CrCard	1.34	.598	227
mobile_banking	1.48	.795	227
internet_banking	1.80	.826	227
business_transction	2.22	.993	227
ECS_payment	1.76	1.003	227
insurance	1.53	.693	227

The above table showed the mean value of variable . Saving , ATM and business transactions has high mean which shows that rural customer mainly used bank services for saving , withdrawal from ATM and business Transactions.

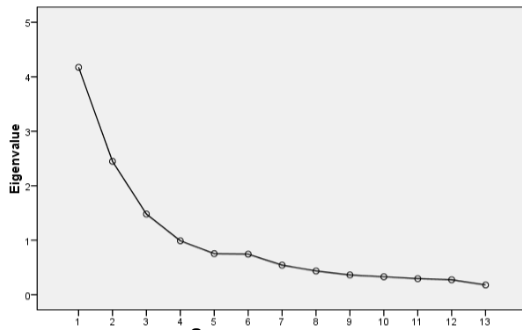
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	1.257E3
	df	78
	Sig.	.000

The reliability of data was tested using Kaiser Meyer Olkin measure of sampling adequacy. KMO value in below table showed .755 and chi square test significant value .000 .These two test showed that that data is fit for factor analysis.

**Correlation Matrix**

	saving	Borrowing	Online _shopping	online_ payment	fund_ transfer	ATm	Dr Card	Cr Card	mobile_ banking	internet_ banking	Business _transction	ECS_ payment	insurance
saving	1	.244**	.509**	.251**	.275**	.556**	.112	.027	.289**	.492**	.254**	.418**	.232**
borrowing			.157**	.455**	.449**	.023	-.188**	-.250**	-.020	.172**	-.068	.017	.023
online_ shopping				.305**	.229**	.377**	-.143	.005	.363**	.544**	.148	.419**	.286**
Online payment					.484**	.026	-.104	-.170**	-.194**	.300**	-.144	.276**	.256**
fund_ transfer						.113	.092	.112	.073	.322**	.003	.053	.369**
ATm							.340**	.386**	.391**	.390**	.370**	.476**	.408**
DrCard								.701**	.111	.183**	.302**	.250**	.382**
CrCard									.317**	.190**	.432**	.334**	.555**
Mobile banking										.321**	.370**	.144	.144
internet_ banking											.437**	.472**	.379**
subsidy											-.003	-.055	-.060
business_transction												.395**	.266**
ECS_ payment													.483**
insurance													1

Scree Plot

Component Matrix<sup>a</sup>

	Component		
	1	2	3
saving	.662	.301	-.292
borrowing	.149	.693	.156
online_shopping	.603	.388	-.398
online_payment	.287	.715	.372
fund_transfer	.402	.487	.467
ATM	.730	-.150	-.183
Debit Card	.441	-.564	.458
Credit Card	.544	-.639	.360
mobile_banking	.485	-.206	-.478
internet_banking	.744	.205	-.136
business_transction	.571	-.369	-.192
ECS_payment	.708	-.017	-.011
insurance	.682	-.090	.444
Extraction Method: Principal Component Analysis.			
3 components extracted.			

1. Saving, online shopping, ATM , mobile banking internet banking and ECS payment are clubbed under the heading of E-banking variable
2. Debit and Credit Card are clubbed under the heading of Plastic money
3. Borrowing, Online Payment and fund Transfer are clubbed under the heading of borrowing and payment factor

### Conclusion

- In Punjab District people used the banking services for saving, ATM Withdrawal and business transactions.



- Our factor analysis extract the three important factor that affect the decision towards adoption internet banking.
- In Rural area , internet banking play very important role for achieving the goal of financial inclusion. Customer of rural area are opened the account for availing the service of internet banking, mobile banking , online payment and transfer of funds.

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