

## **ONLINE BANKING TOWARDS FINANCIAL INCLUSION: A EMPIRICAL STUDY AT SIVAGANGAI DISTRICT**

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### **Abstract**

The financial inclusion (FI) is important aspect to establish the sustainable development in the Nation. The online banking helps the customers under financial inclusion in several ways. The present study examines this aspect with the aid of factor and multiple regression analysis. The customers under financial inclusion from ten top public sector banks at Sivagangai district are taken as the sample of the research. The study identified six important benefits of online banking towards financial inclusion. The significantly influencing benefits on overall attitude on online banking toward financial inclusion are informativeness, access, financial behaviour, and electronic payments. The study concluded that the enriched financial behaviour and access to various financial affairs through online banking maximize the attainment of objectives of FI in the study.

Keywords: Online banking, financial inclusion, financial behaviour, financial access.

### **Introduction**

Financial Inclusion is a prominent tool to achieve sustainable development in the economy since it promotes the economic progression, financial stability, and balanced growth of the country (Thorat, 2007). The poor people particularly in rural areas are unable to access any financial accommodations which are affordable, safe, convenient and reliable to manage their available resources (Pankaj, 2019). Most of that people are suffered by the clutches of private money lenders (Paramasivan and Ganeshkumar, 2013) which affect their growth. In India, almost 70 per cent of the population are in rural areas and mostly involved in agriculture and agro based activity (Mohan, 2006). The financial

inclusion came into India at 2014 in order to include the neglected rural population in the formal financial stream (Ramji, 2009).

### **Financial Inclusion**

It represents the offering of financial services at an manageable cost to low-income groups as well as persons who are financially excluded (Srikanth, 2013). It includes the other financial services like insurance payments, savings, remittance facilities, financial advice, access to micro credit, entrepreneurs' credit, and financial literacy (Rao and Lubin, 2010) among the poor people. The RBI encourages various schemes like no fill accounts, business correspondence, kisan credit card scheme, general credit cards scheme, simpler KYC norms, gender issues and availing to financial services under the aspect of financial inclusion (Sujlana and Kiran, 2018). The online banking is the latest tool to promote the FI activities in rural India (Kumar, et al., 2012).

## **Online Banking**

The online banking is one of the banking services offered by the bank to avoid personal contact of customers and bankers, and to avail the banking services at their door step among the customers of the bank (Ajanthan, 2018). It is also called as digital banking which can provide financial services via mobile phone, personal computers, web or cards linked to a convenient and reliable digital payment system (Amin, 1970). It consists of all products and services, tech and or infrastructure available to an individual to access to credit, savings, payments and information through online (Buckley, 2003). It helps the lower income segment to reduce the cost of finance (Gupta, 1999).

## **Importance of Online Banking and Financial Inclusion in India**

The online banking provides so many benefits to achieve the goals of financial inclusion (Joseph, et al., 1997). It creates a platform for inculcating the thrift habit of the people which is essential for capital formation in India. It transfers the traditional form of investment to the modern investment among the users (Aladwani, 2001). The easiest access to credit through online banking avoid the role of private money lenders among the poor. It eliminates the hurdles to avail the government subsidies and scheme loans through the payment of loan in beneficiaries' bank accounts (Padmasree and Bharathy, 2012). It abolishes poverty and enrich the standard of living of people (Nayak and Goel, 2014).

## **Literature Review**

Ganeshappa and Sureshramana (2019) studied the financial inclusion activities done through the digital banking services. Tatjana Boshkov (2019) identified the role of virtual banking to fill up the gap created by financial exclusion. Poornima, et al., (2019) noticed the creation of awareness on financial inclusion through the online banking. Sujlana and Kiran (2018) noticed the status of FI in India through the online banking system. Reddy (2016) discussed the issues and challenges in financial inclusion through online banking in India. Pooja and Sachdeva (2014) discussed the role of digital banking in the implementation of FI in India. Arun and Sabi (2015) revealed the difficulties in the execution of FI programmes through the online banking. Anurag and Tandan (2018) noticed the role of online banking in the execution of financial inclusion in India.

Agarwal (2014) revealed the difficulties in the implementation of FI schemes through online banking. Under this Scenario, the current study has made an effort to recognize the benefits of online banking in the FI activities in India.

## **OBJECTIVES**

The objectives of the present study is confined to identification of the important benefits of online banking in the development of FI, as per the view of the beneficiaries as well as to measure the respondents view on the important benefits.

## **Conceptual Framework**

The only concept generated for the study is benefits of online banking towards FI. The online banking benefits the financial inclusion in so many ways (Leyshon and Thrift, 1996). The variables in the benefits are drawn from review (Chibba, 2011; Aniban, 2013). These are discussed in Table 1.

**TABLE 1****Items in Benefits of Online Banking towards Financial Inclusion (BOBFI)**

<i>S. No.</i>	<i>Items in BOBFI</i>	<i>S. No.</i>	<i>Items in BOBFI</i>
1.	Access to basic services	16.	Creation financial literacy
2.	Creation of networks	17.	Ease of fund transfer
3.	Carryout financial transactions as easy	18.	Use of Medical Services
4.	Access to banks' timing	19.	Change of Investment behaviour
5.	Information of government schemes	20.	Updation of financial information
6.	Ease of e-shopping	21.	Information on financial instruments
7.	Access to savings	22.	Promote thrift habits
8.	Reduction of waiting time at banks	23.	Use of ATMs
9.	Access to insurance	24.	Ease of financial accomodation
10.	Information on financial advice	25.	Ease of access to micro credit
11.	Usage of e-payments	26.	Usage of formal credit only
12.	Reduction of physical presence at bank	27.	Availing of Government Subsidies
13.	Access to micro credit	28.	24×7 hours bank services
14.	Timely bank transaction	29.	Availing Loans at reasonable cost
15.	Information on financial markets	30.	Use of Kissan Credit Cards

The overall satisfaction on online banking towards financial inclusion is measured by attitude on access to finance, access to financial literacy, access to financial information, cheaper cost of capital and availing of Government schemes and subsidies (Chakravarty and Pal, 2010; Delvin, 2005). The abovesaid variables are measured at likert five point scale.

## Research Methodology

The study is in descriptive nature since it has its own confined objectives and pre determined methodology. Apart from this, the objectives are fulfilled as per the view of the sampled respondents of the study. The sample size of the current research is identified by the formula of  $n = \left[ \frac{Z\sigma}{D} \right]^2$  whereas n-sample size, Z-z statistics at five per cent level;  $\sigma$ -standard deviation of overall attitude on online banking towards financial inclusion at pilot study as well as D-Degree of error acceptance (0.05). The samples are equally distributed among top ten public sector commercial banks in Sivagangai district which offer online banking towards financial inclusion. It came to 240 samples. The respective samples are identified by the concerned bank branch manager. The required data from the sampled respondents are collected by the use of pre-tested interview schedule. The statistical tool namely factor analysis and impact analysis are engaged to process the data.

## Results and Discussion

The first declared results is related with the important benefits of online banking towards the financial inclusion. The score of all 30 variables included for exploratory factor analysis. The results of factor analysis and validity of data for factor analysis is given in Table.

**TABLE**  
**Results of Factor Analysis**

<i>Sl. No.</i>	<i>Import benefits of online banking towards financial inclusion</i>	<i>No. of Items in</i>	<i>Eigen value</i>	<i>Percent of variation</i>	<i>Cumulative per cent of variation</i>
1.	Informativeness	6	6.1173	20.39	20.39
2.	Access	5	5.0446	16.82	37.21
3.	Financial Behaviour	5	4.2349	14.11	51.32
4.	Value Added services	5	3.9444	13.15	64.47
5.	Electronic payments	5	3.4089	11.36	75.83
6.	Time savings	4	2.5473	8.49	84.32
KMO measure of sampling adequacy: 0.7989.		Bartlett's test of sphericity: Chi-Square value = 91.0842*			

\*Significant at five per cent level.

Initially, the plausibility of data for factor analysis is proved by the KMO measure of sampling acceptability since it is higher than 0.60 and the chi-Square value from Bartlett's test of sphericity is acceptable at five per cent level. The applied factor analysis exposes in six important benefits. The first two important benefits are informativeness and access since its eigen values are 6.1173 and 5.0446. The next two important benefits are financial behaviour and value-added services with the eigen value of 4.2349 and 3.9444 correspondingly. The final two important benefits explained by the factor analysis are electronic payments and time savings since its eigen values are 3.4089 and 2.5473. The narrated six important benefits explain the 30 variables benefits of online banking towards financial inclusion to the tune of 84.32 per cent. The number of variables included in informativeness, access, financial behaviour, value added services, electronic payments and time savings are 6, 5, 5, 5, 5 and 4 respectively.

#### **Measurement of the Factors**

The score of the factor is obtained by the mean score of the items in each factor. The mean score of every factor have been estimated separately along with the mean score

of overall satisfaction on the online banking towards the financial inclusion. The computed figures are shown in Table.

**TABLE**  
**Measurement of the Factors**

<i>Sl. No.</i>	<i>Factor</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Co-efficient of variation in</i>	<i>Cronbach alpha</i>
1.	Informativeness	3.5189	0.5443	15.47	0.7886
2.	Access	3.8044	0.6886	18.10	0.7994
3.	Financial Behaviour	3.8449	0.7143	18.58	0.8042
4.	Value Added services	3.7117	0.5996	16.15	0.7673
5.	Electronic payments	3.5996	0.5084	14.12	0.7344
6.	Time savings	3.3414	0.4973	14.88	0.7249
	Overall Satisfaction	3.2969	0.3443	10.44	0.8244

Before the computation of mean score of the factors, the cronbach alpha of all factors (benefits) and overall satisfaction have been estimated. All these are higher than its standard minimum of 0.70. It shows the overall validity of variables in these factors. The larger mean score is observed in the case of financial behaviour and access since its mean scores are 3.8449 and 3.8044 respectively. The greater consistency is noticed in the case of view on informativeness and time savings since it's CVs are 15.47 and 14.88 per cent respectively. The mean of overall satisfaction on benefits of online banking towards financial inclusion is 3.2969 which shows a moderate level of satisfaction on this aspect.

### **Impact of Important Benefits on Overall Satisfaction**

The relative importance of each benefit of online banking on the overall satisfaction on online banking towards FI is scrutinized with the assistance of impact analysis. The employed independent variables are the score of all important benefits of online banking whereas the employed dependent variable is the score on overall



satisfaction on online banking toward financial inclusion. The ordinary least square method is followed to estimate the regression co-efficient. Before the execution of multiple regression analysis, the Variance Inflation Factor and tolerance level of each independent variable are estimate to predict the multi-collinearity problem during the application of impact analysis.

The result of impact analysis is given in Table number 4.

**TABLE**  
**Results of Multiple Regression Analysis**

<i>Sl. No</i>	<i>Constructs</i>	<i>Unstandardize d regression Co-efficient</i>	<i>Standar d error</i>	<i>'t' value</i>	<i>'β' valu e</i>	<i>VIF</i>	<i>Toleranc e Level</i>
	Constant	89.6973	11.3454	7.9060 *			
1.	Informativenes s	0.3969	0.0886	4.4797 *	0.3508	6.117 3	0.1635
2.	Access	0.4293	0.1173	3.6598 *	0.3997	5.908 4	0.1693
3.	Financial Behaviour	0.4886	0.1209	4.0414 *	0.4602	6.394 9	0.1564
4.	Value Added services	0.2708	0.2541	1.0657	0.2443	5.451 4	0.1834
5.	Electronic payments	0.3703	0.0899	4.1190 *	0.3429	5.804 5	0.1723
6.	Time savings	0.3041	0.2842	1.0700	0.2731	5.314 4	0.1882
7.	R <sup>2</sup>	0.8222					
8.	Adjusted R <sup>2</sup>	0.8011					
9.	F-Statistics	69.0844*					

The VIF of all six independent variables are higher than 0.60 whereas the tolerance levels are lesser than 0.20 which indicate that there is scope of multi collinearity problem in the application of multiple regression analysis. The consequentially influencing important benefits on the overall satisfaction on online banking towards financial inclusion are informativeness, access, financial behaviour and electronic payments since its regression co-efficients are significant at five per cent level.

The greater influence is observed in the case of financial behaviour and access since its 'β' values are 0.4602 and 0.3997 correspondingly. The changes in the important benefits explain the changes in the overall satisfaction on online banking towards financial inclusion to an extent of 82.22 per cent since its  $R^2$  is 0.8222. The difference between  $R^2$  and adjusted  $R^2$  is a minimum of 0.0211 which reveals that there is no need for the inclusion further independent variables in multiple regression analysis. The significant 'F' statistics justifies the validity of fitted regression function.

### **CONCLUDING REMARKS**

The study empirically proved the impact of online banking towards financial inclusion among the customers in banks. The important benefits of online banking towards financial inclusion are informativeness, access, financial behaviour, value added services, electronic payments and time savings. The overall satisfaction on online banking towards financial inclusion is at a moderate level. The significant influencing important benefits are informativeness, access, financial behaviour, and electronic payments. The highly contributing benefits are financial behaviour and access. The study concluded that the online banking towards FI is worked out as the expectation of the Government of India. Hence, the Government authorities are advised to motivate the customers under financial inclusion to follow online banking through the provision of appropriate education and training.

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