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## AN EMPIRICAL STUDY ON CUSTOMERS' PERCEPTION TOWARDS E-BANKING OF RURAL BANKS IN SELECTED DISTRICTS OF ODISHA

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### ABSTRACT

*e-business can be an important source of competitive advantage for banking sector across the globe. The development in IT enabled services has brought a paradigm shift in the operations of banking business. With the e-banking facilities, now the customers are transacting online sitting in their homes and offices. To know the customers perception towards e-banking services, the present research paper has attempted to examine the e-banking facilities offered by the rural/gramya banks of selected districts of Odisha. For this purpose, a survey was conducted during October, 2016 to December, 2016. In the survey, 57 rural banks (Gramya Banks) having e-banking facilities and 375 customers of these banks have participated. The study reveals that majority of the customers of rural banks are satisfied with the e-banking facilities particularly with regard to the security and privacy. The study further reveals that customer satisfaction depends very much on the quality of service provided in e-banking.*

### KEYWORDS

customer satisfaction, e-banking, rural banks, security & privacy.

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### INTRODUCTION

-Banking refers to the use of the internet as a remote delivery channel for banking services which includes viewing and verifying transactions on account, checking balances, printing statements, monitoring noncredit and unpaid cheques, and many more. The service provided by banks through internet has evolved around from simple consultation of accounts to a full range of banking services. e-banking also allows customers to interact more intensively than before with the front office of the bank and at the same time allow banks to centralize back office operations and increase their efficiency. The day and night availability of such services make it more convenient for the clients of banks. After liberalization, privatization and globalization of the Indian economy, the need to upgrade services to an internationally accepted level has prompted many of our banks to offer internet banking services and facilities. With e-banking, customers are transacting from the comfort of their homes and offices and are able to do most of the transactions which would have been done in the banking halls. Using a personal computer with an internet connection, they are able to transact on their traditional accounts such as cash withdrawals, transfer from one account to the other, make payments of utility bills, viewing and printing of statements, request for cheque books etc. Now, most of the countries in the world consider tremendously on e-banking and formulate it as a drive for the development of the economy. Even they consider e-banking as more important than the industrial revolution. Thus, it is getting more attention from all types of business houses and clients, both at national and international level. The highly successful operations of some well known names on the internet, such as eBay, Yahoo, Dell and Amazon, have attracted the banking institutions to go with this network for their business activities.

### STATEMENT OF THE PROBLEM

e-banking is the latest development that has added a new dimension to banking transactions and thereby making it more convenient and user friendly. No doubt, it reduces the long queues in banking halls, still there are some problems which do not encourage banking through internet and causes many customers to be physically present in the bank premises instead of taking advantage of e-banking. The problems like low broadband internet penetration, customers' preference for traditional banking transaction, fear of online threats/scams, lack of basic knowledge on computers and the high cost of internet accessibility are some of the major stumbling blocks threatening the growth of e-banking particularly in case of Rural/Gramya Banks. However, this is a new way of doing business and the customers should not remain a mere spectator to the changing scenario. In any business to customer (B2C) type of environment, satisfying a customer is the ultimate objective of business entities. Moreover, the concept of customer satisfaction is vital for service organizations, such as banks, as many of them subscribe to the fact that higher customer satisfaction will lead to greater customer loyalty which in turn, leads to future revenue. Customer satisfaction not only means a happy customer but rather more than that. With the growing adoption of information technology in banking sector, customers prefer to deal online with their banks because of the user friendly technology, enhancement in quality of service, timely availability of required information and of course, satisfaction. Further, from banking side, online banking facilitates cost-effective decision on e-banking operations and enhances customer service quality; develop trust in customers and boost market share in this expanding but increasingly competitive business environment. On the whole, it generates customer satisfaction and customer commitment in one hand and a fair rate of return to the banks on the other hand. In this connection, how online banking facilities benefit the customers of rural banks is the thrust area of present research study.

### REVIEW OF LITERATURE

The explosion of internet and electronic banking has evoked extensive research efforts aimed at understanding service satisfaction in relation to virtual business environment. The unique characteristic of internet based service is the extensive human-computer interactions. Quite a large number of research studies have been conducted in the area of internet banking from different aspects highlighting the prospects and challenges of internet banking. The important studies include the studies conducted by Rawani and Gupta (2002), Bhasin (2003), Rao et al. (2005), Shah and Siddiqui (2006), Srivastava (2007), Uppal (2008) and Seranma and Saravana (2012). Most of the studies focused on modern banking services provided through the adoption of e-banking for effective delivery system of banking services to the customers. Further, with regard to customer satisfaction on e-banking, the notable research work conducted by the researchers include the studies

of Sahrawat (2003), Costanzo et al. (2003), Lee et al. (2005), Raja et al (2008), Siddik (2012) and Das et al. (2012). These studies pointed out how e-banking facilities had increased the customer satisfaction to a great extent.

**SIGNIFICANCE OF THE STUDY**

The banking sector is basically a service industry which is vital for the growth of the economy of any region/country. In this regard, Balasore, Bhadrak & Mayurbhanj districts of Odisha are not an exception. Moreover, these areas are primarily the agrarian one and largely dominated by tribal people. The development of these districts not only depends on agriculture and allied activities but also on the industrial activities. Hence, sufficient capital is required for this purpose. In this context, the banking industry can play a key role and the role of the rural/gramya bank cannot be undermined. Thus, the present research paper explores the customers’ perception towards e-Banking services offered by the Gramya Banks and their satisfaction on e-banking. The study further aims at how customers perceive internet banking useful as compared to traditional banking services, its role in shaping/developing rural economy and assisting rural people for their timely financial requirements.

**OBJECTIVES OF THE STUDY**

The main objective of the study is to examine the e-banking adoption among Gramya Banks in Balasore, Bhadrak and Mayurbhanj districts to offer e- banking facilities and to find out the level of satisfaction of customers of such banks. The detail objectives are as follows.

1. To study whether e-banking facilities provided by Gramya banks to its customers has any effect on security and privacy.
2. To examine whether e-banking services provided by Gramya banks to its customers is more reliable than the old pattern (manual system).
3. To examine the impact of e-banking services of Gramya banks on customers’ satisfaction.

**SCOPE OF THE STUDY**

The present study is both descriptive and evaluative in nature and examines the impact of various factors that lead to customer satisfaction/dissatisfaction on e-banking. The study measures the impact of internet banking on performance of Gramya banks operating in three districts namely Balasore, Bhadrak & Mayurbhanj of Odisha. The scope of the study is limited to Gramya Banks having internet banking facilities operating in the districts of Balasore, Bhadrak and Mayurbhanj only. Hence, commercial banks / nationalized banks having net banking facilities operating in the above districts are not included in the present study.

**RESEARCH DESIGN**

For the present research work, data have been collected from the primary and secondary sources. Primary data was collected from respondents through a survey. In the present research work, a structured questionnaire was prepared and administered among the customers of Gramya banks of above mentioned districts. Secondary data was collected from various published documents such as research reports, annual reports, books, Journals and periodicals etc. The primary data was collected by the researchers from October 2016 to December 2016. Since this is a survey method of research work, data for long period is not necessary. Only a particular time period data is enough to conduct the research work.

**SAMPLE DESIGN**

The sample design followed in the present study is outlined below.

**TARGET POPULATION**

To address the research problem of the study, the present research work covers three districts namely Balasore, Bhadrak and Mayurbhanj of Odisha. These districts are chosen purposefully keeping in view the special characteristics of such districts. They are agriculturally rich, tribal dominance and high literacy. A total of 152 branches of Odisha Gramya Bank are functioning in these three districts and out of which 120 branches have e-banking facilities.

**SAMPLING TECHNIQUE**

For the present research work proportionate stratified random sampling technique is used where the sample size is drawn from each strata i.e. the total number of customers in the branches of each strata having net banking facilities divided by the total number of customers of these three districts having the net banking facility and then multiplied by the number of sample size collected and included in the study. From each strata, using proportional allocation, sub sample size for each strata is calculated and included in the sample list.

**SAMPLE SIZE**

In the present study, 57 Gramya banks from three districts have participated in the survey with the consent of the branch managers of Gramya banks having the net banking facilities. 450 questionnaires were circulated among the clients of these banks. However, finally the researchers got 375 valid questionnaires having all the required information for carrying out the research work.

**STATISTICAL TOOLS AND TECHNIQUES USED**

Finally, the collected data were analyzed and interpreted by using the statistical tools namely percentage, average, scaling technique, regression analysis etc.

**ANALYSIS AND INTERPRETATION OF DATA**

The analysis and interpretation of data are presented in two sections. The first section presents the analysis of data relating the demographic variables and the second section presents the customers’ views on the usefulness of e-banking services offered by the Gramya banks.

**TABLE 1: GENDER-WISE CLASSIFICATION OF RESPONDENTS**

Gender	Frequency	Percentage	Cumulative percentage
Male	322	86	86
Female	53	14	100
Total	375	100	

Source: Primary data collected through survey

The table-1 shows that 86 % respondents are male customers and only 14 % are female customers. In other words, mostly male customers are going to the gramya bank for banking transaction.

**TABLE 2: AGE-WISE CLASSIFICATION OF RESPONDENTS**

Age group	Frequency	Percentage	Cumulative percentage
15-25 year	214	56.80	56.80
26-40 year	113	30.40	87.20
Above 40 years	48	12.80	100
Total	375	100	

Source: Primary data collected through survey

From the table-2, it is noticed that respondents comprising of 56.80% belong to the age group of 15 to 25 years, followed by 30.40% customers belonging to the age group of 26-40 years. However, customers having age above 40 years comprise only 12.80%. It can be inferred that young people mostly go to the rural banks for banking transaction.

**TABLE 3: OCCUPATION-WISE CLASSIFICATION OF RESPONDENTS**

Occupation	Frequency	Percentage	Cumulative percentage
Agriculture	48	12.80	12.80
Govt. service	89	23.73	36.53
Private service	104	27.73	64.26
Business	116	30.94	95.20
Others	18	4.80	100
Total	375	100	

Source: Primary data collected through survey

The table-3 reveals that 30.94% respondents belong to business category followed by private services and government service with 27.73% and 23.73% respectively. Agriculturists and others constitute 12.80% and 4.80% respectively. Looking at the above table, it can be said that business class and private service holders are the major customer groups of the rural banks.

**TABLE 4: EDUCATIONAL QUALIFICATION OF RESPONDENTS**

Education	Frequency	Percentage	Cumulative percentage
Illiterate	24	6.40	6.40
Up to 7 <sup>th</sup>	38	10.00	16.40
10 <sup>th</sup>	72	19.20	35.60
12 <sup>th</sup>	93	24.80	60.40
Degree	117	31.20	91.60
Others	31	8.40	100
Total	375	100	

Source: Primary data collected through survey

It is revealed from the table-4 that respondents with degree qualification constitute 31.20% which is followed by 12th pass and 10th pass whose composition in the total sample respondents are 24.80% and 19.20% respectively. It is interesting to note that illiterate respondents constitute only 6.40%.

**TABLE 5: PERIOD OF USE OF E-BANKING FACILITIES BY THE RESPONDENTS**

Period of use	Frequency	Percentage	Cumulative Percentage
1 to 6 months	96	25.60	25.60
7 to 12 months	131	34.80	60.40
More than 1 year	148	39.60	100
Total	375	100	

Source: Primary data collected through survey

To know how old the customers are in using the e-banking facilities, it is found from the table-5 that 39.60% respondents have used the e-banking facilities for more than one year. On the other hand, about 25.60% respondents have used the same for less than 6 months and rest 34.80% respondents have used it for more than six months but less than one year. From the above information, it can be inferred that majority of the respondents have experience in e-banking transaction.

**TABLE 6: FREQUENCY OF USE OF THE E-BANKING BY THE RESPONDENTS**

Frequency of use	Frequency	Percentage	Cumulative Percentage
Daily	96	25.60	25.60
Once a week	117	31.20	56.80
Once a Month	162	43.20	100
Total	375	100	

Source: Primary data collected through survey

In order to know the frequency of use of e-banking facilities by the respondents, it is found from the table-6 that almost all the customers avail and use the facilities. However, 56.80 percent customers use the facilities either daily or once in a week. The rest respondents (43.20%) are doing transaction through e-banking once in a month.

**TABLE 7: REASONS FOR OPTING E-BANKING BY THE RESPONDENTS**

Reasons for Opting	Frequency	Percentage	Cumulative percentage
Convenience (24 hours service, anywhere connectivity)	59	15.60	15.60
Curiosity	43	11.60	27.20
Better rates	63	16.80	44.00
Safe and secure	44	11.60	55.60
Low service charge	69	18.40	74.00
Easy to track my banking transaction activity	97	26.00	100
Total	375	100	

Source: Primary data collected through survey

With regard to opting for e-banking transaction, the table-7 shows that 26% respondents use the facility because it is easy to track banking transaction followed by low service charge and better rates. On the other hand, 11.60% respondents each use the facility either for curiosity or safe and secure.

**TABLE 8: RELIABILITY OF E-BANKING SERVICE BY THE RESPONDENTS**

Reliability	Frequency	Percentage	Cumulative percentage
Very Reliable	96	25.60	25.60
Reliable	119	31.60	57.20
Somewhat Reliable	77	20.40	77.60
Unreliable	46	12.40	90.00
Very unreliable	37	10.00	100
Total	375	100	

Source: Primary data collected through survey

To ascertain the reliability of e-banking transaction of Gramya bank by the customers, the table-8 depicts that about 57.20% respondents have viewed it reliable/very reliable. However, 22.40% customers have said that it is unreliable/very unreliable. Further, it is seen from the table that about 20.40% or 77 respondents expressed that the e-banking facilities provided by the Gramya banks are somewhat reliable.

**TABLE 9: LEVEL OF SATISFACTION OF RESPONDENTS WITH E-BANKING FACILITY**

Item/Variable	Frequency	Percentage	Cumulative percentage
Very Satisfied	123	32.80	32.80
Satisfied	111	29.60	62.40
Somewhat Satisfied	72	19.20	81.60
Unsatisfied	44	11.60	93.20
Very unsatisfied	25	6.80	100
Total	375	100	

Source: Primary data collected through survey

From the table-9, it is evident that out of total respondents, 32.80% respondents are very satisfied, 29.60% respondents are satisfied and 19.20% respondents are somewhat satisfied. About 18.40% respondents are either unsatisfied or very unsatisfied on e-Banking service provided by the Gramya Banks.

**TABLE 10: RESPONDENTS VIEW ON SECURITY AND PRIVACY OF E-BANKING**

Item/Variable	Frequency	Percentage	Cumulative percentage
Very Good	110	29.20	29.20
Good	93	24.80	54.00
Average	76	20.40	74.40
Poor	63	16.80	91.20
Very Poor	33	8.80	100
Total	375	100	

Source: Primary data collected through survey

When the respondents are asked to give their views on e-banking service on a scale with regard to security and privacy, it is found from the table-10 that about 54 % respondents have expressed it as good/very good. However, 25.60% respondents have viewed it as either poor or very poor.

**MEASUREMENT OF CUSTOMER SATISFACTION**

Customer satisfaction on e-banking provided by Gramya banks have been measured by the regression analysis. The regression analysis attempts to study the relationship between a dependent variable and a set of independent variables. The purpose of using regression analysis is to find out the weights of the independent variables: service quality, profitability and performance of technology on the dependent variable i.e. customer satisfaction.

The linear equation used for a regression analysis is

$$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + \dots + B_n X_n$$

Where Y= customer satisfaction, X<sub>1</sub>= service quality, X<sub>2</sub> = profitability, X<sub>3</sub> = performance of technology.

B<sub>0</sub> is a constant and treated as an error in the analysis. B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub> are the regression coefficients and these coefficients give the estimated change in the dependent variable associated with a unit change in the corresponding independent variable, with the condition that other independent variables remain constant. The multiple regression analysis has been carried out by SPSS.

**TABLE 11: VARIABLES ENTERED/REMOVED**

Model	Variables entered	Variables removed	Method
1	X <sub>1</sub> = service quality, X <sub>2</sub> = profitability of banks, X <sub>3</sub> = performance of technology	.	Enter

a All requested variables entered.

b Dependent Variable: customer satisfaction.

The above table tells about the predictor variables and the method used. Here we can see that all predictor variables were entered simultaneously (because we selected the Enter method).

**TABLE 12: MODEL SUMMARY**

Model	R	R Square	Adjusted R Square	Std. Error of estimate
1	.962	.944	.831	2.1356

a Predictors: (Constant) service quality, profitability of banks and performance of technology

The multiple correlation coefficient R = 0.802 indicates that there is a strong correlation between the customer satisfaction and the variables predicted by the regression model. The Adjusted R square value tells us that our model accounts for 83.1% variance which can be considered as good predictive model.

**TABLE 13: ANOVA SUMMARY**

Model		Sum of squares	Df	Mean Square	F	Sig.
1	Regression	876.548	5	175.30	27.60	.000
	Residual	57.19	9	6.35		
	Total	933.733	14			

a Predictors: (Constant), customer satisfaction, profitability of banks, performance of technology

b Dependent Variable: Customer satisfaction

ANOVA table provides the F-test for the null hypothesis that none of the predictor variable is related to customer satisfaction. Here we can clearly reject this null hypothesis (F (5, 9) = 27.60, P < 0.05). Hence, it is concluded that at least one of the independent variables is related to the dependent variable.

**TABLE 14: COEFFICIENTS OF PREDICTOR VARIABLES**

Model		Un-standardized Coefficients		Standardized Coefficients		T	Sig.
		Beta	Std. Error	Beta			
1	(Constant)	6.513	2.153			1.910	.004
	Service quality	2.631	.523	.307		2.132	.014
	profitability of banks	1.338	.769	.018		1.217	.031
	performance of technology	1.971	.366	.243		1.403	.019

a Dependent Variable: Customer satisfaction

The t and Sig (p) values give a rough indication of the impact of each predictor variable – a big absolute t value and small p value suggest that the predictor variable has a large impact on the criterion variable.

The un-standardized Beta Coefficients give a measure of the contribution of each variable to the regression model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable while other predictors remain constant.

Un-standardized regression coefficients are used to estimate the regression line which is as follows.

$$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3$$

$$\Rightarrow Y = 6.513 + 2.631 X_1 + 1.338 X_2 + 1.971 X_3$$

It is clear from the regression equation that all the variables are positively correlated with customer satisfaction. The variables namely service quality (2.631), profitability of banks (1.958), and performance of technology (1.971) significantly influences the variable Y (customer satisfaction). This is also evident from lower 'p' values and higher 't' values. The most significant independent variable is service quality.

### FINDINGS OF THE STUDY

Major findings of the study are presented below:

- Majority of the customer respondents in the study are male members whose percentage is 86.
- Majority of the customer respondents (56.80 %) belong to the age group of 15-25 years.
- Business class customers are highest i.e. 30.80 % of the total sample under study.
- From among the customer respondents, 31.20 % are degree holders.
- With regard to e- banking transaction, 39.60% of sample customer respondents have more than one year experience.
- About 25.60 % customer respondents use the e- banking daily.
- With regard to reliability of e-banking service, about 57.20 % expressed either reliable or very reliable.
- Regarding the reason for opting e-banking by customer respondents, that they use it mainly to track banking transaction activities easily.
- With regard to level of satisfaction of the customers on e-banking, 62.40 % feel either satisfied or very satisfied.
- With regard to customers' view on security and privacy on e-banking services, the study noticed that the majority of the customers viewed it as either very good or good.

### CONCLUSION

On the whole the present research work is a fact finding one conducted on a limited scale. In the era of IT revolution and use of more IT enabled services, the banks particularly the rural /Gramya banks can adopt e-banking to a larger extent for customer satisfaction. As the study reveals that majority of the customers of the rural banks are satisfied with e-banking, there is a need to include more branches of rural banks under the e-banking system. This will bring the rural customers as well as the banks to a win-win position. Ultimately, this will boost the various activities of the rural sector which is the need of the hour.

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