



ADOPTION AND USES OF DIGITAL BANKING IN RURAL ODISHA: AN IMPACT STUDY

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Abstract: The ability to conduct financial transactions with a single touch or click rather than waiting in line at a bank simplifies the customer's life which is exactly what they are seeking for. While digitization improves internal operations, it only marginally improves the client offering with value-added services like wallet solutions and tools for managing personal finances. One of the key functions of digital transformation strategies is to educate company ventures on new methods of product promotion and sales, which will ultimately improve how well they satisfy the demands and expectations of their clients. This article aims to examine impact of digital transformation of banking on rural customers in the state of Odisha.

Index Terms - Digitalization, ICT, Rural Area, Bank Transformation and Banking Sector

I. INTRODUCTION

Since the nation's liberalization and deregulation, the banking landscape in India has seen a significant transformation. A paradigm shift in banking operations has been brought on by considerable technical advancements and aggressive information technology integration. In today's knowledge society, adapting to dynamism and complex surroundings is critical for banks to survive and enhance their positions. The automation of traditional banking systems allows bank clients to access the bank's products and services via an electronic/online platform. It is a technique of automating banking procedures and converting the bank's powerful presence with a digitalization, hence removing the need for a customer to visit a branch. Customers see digital banking as the realization of their banking dream of 'Anywhere, Anytime, Anyway.' With technological improvement, the foundation of automation & digital banking on a worldwide scale has been established. Furthermore, the mobile payment revolution has spread to rural areas, and its impact is transformational in character. (Singh & Malik, 2019). Digitalization refers to the utilization of digital technology to improve existing processes or introduce new methods of performing company's activities, that increases the consumer experience and results in better currency exchange rates for the Organisation. In the digital age, digital transformation entails revamping organizational procedures.

The banking industry is going through a critical time in which all working visions are fast changing, and technology is perhaps the powerful factor, that allow the banks to compete by integrating information with new goods or services. Many chores are now completed electronically as a result of the widespread usage of information technology at home and at business. The Indian consumer is gradually but steadily shifting to electronic banking. ATMs and the internet are getting more popular. The most pressing issue confronting banks is how to defend their declining profitability as a result of competition. (Amudhan et.al, 2022). Job applicants in rural areas programs have achieved a new objective by integrating more than 500,000 volunteers, also known as banking correspondents.

Technological advancements in the banking sector have acted as a supplement channel for providing banking services in a convenient manner. Financial institutions may now deliver basic financial services to the financially excluded people, particularly in rural and isolated areas, thanks to digital banking services. To promote financial inclusion, the financial sector globally makes substantial use of digital financial services. Digital financial services facilitate effective and convenient banking activities and can function as a system for simple access to traditional banking services (Neoga, 2019). Technology has progressed from being a business facilitator to a business driver. Banking institutions cannot contemplate introducing a financial instrument unless digital technologies are used in customer service, operations, transfers, auditing, marketing, pricing, or any other bank activity.

ATM cards and mobile-banking services but not to issue loans or credit cards. A payments bank's major goal is to expand financial inclusion by providing low-income households, migrant labour workforce, small enterprises, and other unorganised sectors, as well as other similar customers, with small savings accounts and payment remittance services. It also intends to offer high volume, low value deposits and payment/remittance activities in an innovation environment.

IT is an essential component of a well-functioning financial sector. However, there are significant security risks involved with online banking or digitization, despite the fact that the benefits are largely embraced by Indians. More than 12,000 distant post offices would be connected to payment banks through digitalization, according to Mr. Narendra Modi's announcement of the "Digital India" programme. Furthermore, reducing the flow of black money is the primary objective of India's early digitalization. Denktash and Nandini (2013).

II. Population and Sample

The primary purpose of this empirical study was to assess the impact of various variables on customer perception and satisfaction. Several demographic variables were investigated, as well as planned to see if there was any association between such factors and other features of green banking. The study used a descriptive research design.

Data and Sources of Data

Likert questionnaire is being used to obtain primary data from 114 participants in rural Odisha for the study. Both non-probability sampling and judgement sampling were utilized to gather the primary data. The data was collected utilising both offline and online distribution methods, and the information was ultimately provided by respondents—the study's final sample size.

III. Review of Literature

(Mbama, 2018) in his research examined Customers' perceptions of e - banking, experience of customer, contentment, financial performance and loyalty, are all investigated in their study (FP). Various statistical tools such as FP ratios, factor analysis, SEM, and ANOVA tests were used. Quality of service, technical quality, value perception (PV), employee retention, perceived utility, and perceived risk are the primary aspects that influence customer experience in DB. Customer pleasure, satisfaction, and loyalty all have a huge impact on FP.

(Arora, 2018) made an empirical study on perceived risk in many nations, they create a robust conceptual framework for the researchers in their study. To increase consumer usage of e-banking services, banks should place a higher emphasis on creating e-banking risk management procedures.

(Singh & Malik, 2019) evaluate the need for digital literacy in today's financial environment and highlight recent opportunities and challenges in the rural banking industry. This study offers insights on the digital processes and technology used by Indian small-town banks as well as a deeper understanding of how rural consumers perceive and use such services.

(Sharma, 2019) focuses on raising financial inclusion awareness among young people and identifying the most favoured digital banking channel for promoting financial inclusion. According to the findings, online banking and its channels operate brilliantly and have a positive impact on financial inclusiveness. Security is a major issue that contributes to young people's lack of trust in technology.

(Terziev et al., 2020) This study aims to examine how companies employ business strategy for user experience management to improve their business results including desirable client expectations, acquiring and keeping customers, and broad market competition.

(Hadid et al., 2020) They employed a quantitative study approach in their study, with systematic data collection and analysis using a correlational survey design. Data was collected from 384 participants taken from the five largest commercial banks using a prepared and verified questionnaire. SmartPLS software and PLS-SEM were used to analyse the data collected (PLS-SEM). Consumer satisfaction is positively

impacted by reliability, assurance, tangibility, and responsiveness based on findings. The report also recommended that Malaysia's financial regulatory bodies adopt a standard structure.

(Eren, 2020) examined how deploying bank chatbots affects customer happiness, as well as how perceived chatbot trust and bank reputation affect it. (PLSSEM) is used to look at how the variables relate to one another. SPSS 21 and SmartPLS were the programmes utilised for data analysis. Perceived performance, perceived trust, and brand reputation all have a big impact on how happy customers are using chatbots. Although they don't directly affect customer happiness, consumer expectations and confirmation of those expectations do enhance perceived performance.

(Nurmaliki, 2021) identify and test the elements that affect banks customer behaviour when utilising the Digital Savings application in Indonesia. The findings revealed that three characteristics, namely perceived usefulness, attitude, and trust, influenced the intention to utilise the Digital Savings application. While the variables the perceptions of social influence, behavioural intention, and ease of use had little effect on intention to utilise the Electronic Savings programme. The intent to use the Digital Savings programme, on the other hand, may have a substantial impact on its use.

(Ramaswamy et.al, 2021) sought to analyse the expansion of online banking services and related consumer experience by gathering information from customers. Despite the growing use of digital banking system during the lock-down period and people's preference for DBS, awareness, security concerns, network connectivity, and ease of use remain major difficulties that must be addressed.

(Tiwari & Tiwari, 2021) In their research, researchers broaden the applicability of TAM components in relation to customers' perceptions of trust, awareness, and risk in order to examine users' behavioural intentions about the adoption of mobile banking. The proposed framework was put to the test using convenience sampling by the authors utilising regression analysis in SPSS 23. Findings supported past research by showing that perceived utility, ease of use, customer knowledge, perceived trust and perceived trust perceived risk were crucial determinants in the uptake of m-banking services in India.

(Pavithra, 2021) aimed to determine the elements influencing customers' perceptions of digital banking services, as well as the level of satisfaction and preference for digital banking services. Following the development of a standardised questionnaire, a survey was undertaken. The paper also addresses its implications, ideas for enhancing digital banking services, and the potential for further research. Factor analysis and percentage were both used in this investigation. According to the findings, customers of all ages prefer online banking to traditional banking. Customers use their smartphones to do digital banking transactions.

(Abro & Buriro, 2021) attempts to do an empirical examination of the impact the of digital banking on the satisfaction of customers in Pakistan's banking industry. This would allow for more individuals to utilise mobile banking for transactions and to meet their essential financial needs. In order to improve the customer experience, bank management should try to integrate more value-added products in their mobile banking apps and develop more user-friendly m-banking apps.

(Sarkar & Singh2020) stressed the growing importance of digital payments and various means of digital banking, with various payment banks benefiting the most from the development. Thus, the concept of payment banks was a game changer in the context of India, since it attempted to bring low-income households into the banking umbrella.

(Bhayani, 2022) In their study, they seek to determine how much digital banking influences the urban and rural populations, the level of satisfaction of customers in digital banking, and future of digital banking. Data were acquired using a structured questionnaire and quota sampling. It has been scientifically proven that Consumers feel at ease with digital banking and anticipate a dedicated centre for grievance redress, increasing customer satisfaction and paving the way for the realisation of a Digital India.

(Dehnert & Schumann, 2022) consumer service experience, service scope, and professional knowledge have repeatedly been identified as clients' top three concerns when selecting a financial service provider. The type of provider and innovations in digital products have had little effect on overall consumer choice. The study found out that influencing factors have a moderating effect on the preference for checking account service features in multi group studies. Inspired by non-pragmatism and cultural standards, a little creative Fintech consumer niche favours a completely digital operating model with data-driven banking applications.

(Chauhan & Akhtar, 2022) show the effect of online - banking on customer ratings of quality service and to create a method for determining the most critical online banking characteristics that influence a bank's financial performance.

IV. Objective of the Study

- i. To study the rural customers' perception about the digital banking in present context.
- ii. To study the satisfaction of the rural customers on digital banking services.

V. Hypothesis of the study

- H_{1a}: Customer perception is not significantly and favourably affected by security.
 H_{1b}: The customer's perception is not significantly and favourably affected by accessibility.
 H_{1c}: The customer's perception is not significantly and favourably impacted by offerings.
 H_{1d}: Customer perception is not significantly and favourably impacted by trust.
 H_{1e}: The customer's perception is not significantly and favourably impacted by ease of use.
 H_{2a}: There is no appreciable relationship between security and customer pleasure.
 H_{2b}: Customer satisfaction is not significantly and favourably impacted by accessibility.
 H_{2c}: Offerings don't significantly and favourably affect customer satisfaction.
 H_{2d}: Trust does not considerably and pleasantly affect customer pleasure.
 H_{2e}: Ease of use does not considerably and favorably affect customer satisfaction.

VI. Results and Discussion

Table-1 Model Summary

MODEL	R	R-SQUARE	ADJUSTED SQUARE	R	STANDARD ERROR OF THE ESTIMATE	D-W
1	.755 ^a	.570	.542		.19174	1.915

a. Predictors: (Constant), EU, Security, Trust, Offering, Accessibility
 b. Dependent Variable: Perception

Source: Compiled from collected data

Table-2 ANOVA

MODEL		SUM OF SQUARE	DF	MEAN SQUARE	F	Sig.
1	Regression	3.801	5	.760	20.681	.000
	Residual	2.867	78	.037		
	Total	6.669	83			

a. Dependent Variable: Perception
 b. Predictors: (Constant), EU, Security, Trust, Offering, Accessibility

Source: Compiled from collected data

Table-3 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.918	.358		2.566	.012
	Security	.106	.063	.142	1.696	.004
	Accessibility	.335	.097	.369	3.451	.001
	Offering	.160	.081	.207	1.970	.003
	Trust	.096	.061	.136	1.577	.000
	EU	.099	.077	.120	1.294	.000

a. Dependent Variable: Perception

Source: Compiled from collected data

The updated R² value of the regression study shows how Security, the independent variable, affects Customer Perception, the dependent variable. The dependent variable's fluctuation is explained by independent factors 54% of the time, according to the revised R² value of .542. As a result, our theory is rejected. This demonstrates that security has a substantial and positive impact on customer image. The autocorrelation is assessed using the Durbin-Watson test. The Durbin Watson value is 1.915, indicates that the dependent variable's is substantially within the acceptable range for linear regression. ANOVA is applied to test the model's goodness of fit. In the ANOVA summary table, the model has a high goodness

of fit since the value of F, 20.681, is significant at the 0% level of significance. The coefficients used to build the multiple regression equation are not standardised.

The adjusted R² value indicates how the predictor variables, Accessibility, influences the dependent variable, Customer Perception. As a result, our theory is rejected. This shows that accessibility has a favourable and substantial impact on perception of customer. The regression table illustrates the impact of the independent variable, Offerings, on the dependent variable, Customer. As a result, our theory is rejected. This suggests that Offerings has a big and positive impact on Customer Perception. The autocorrelation is assessed using the Durbin-Watson test, which is substantially within the acceptable range for linear regression. ANOVA is used to test the model's goodness of fit, and it is significant at the 0% level of significance, indicating that the model has a high goodness of fit. The multiple regression equation is built using unstandardized coefficients. The adjusted R² value denotes the effect of the independent variable, Trust, on the dependent variable, Customer Perception. Therefore, the theory is rejected. This suggests that trust has a favourable and considerable impact on customer perception. As a result, our null hypothesis is rejected, demonstrating that consumer impression is influenced by security, trust, offerings, and simplicity of use.

TABLE-4 MODELSUMMARY

MODEL	R	R-SQUARE	ADJUSTED R-SQUARE	R-STD.ERROR OF THE ESTIMATE	D-W
1	.566 ^a	.321	.277	.32343	1.668

a. Predictors: (Constant), EU, Security, Trust, Offering, Accessibility

b. Dependent Variable: Satisfaction

Source: Compiled from collected data

TABLE-5 ANOVA

MODEL		SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.
1	Regression	3.856	5	.771	7.372	.000 ^b
	Residual	8.159	78	.105		
	Total	12.015	83			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), EU, Security, Trust, Offering, Accessibility

Source: Compiled from collected data

TABLE-6 COEFFICIENTS

MODEL		UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T	SIG.
		B	STD. ERROR	BETA		
1	(Constant)	1.195	.603		1.981	.051
	Security	-.040	.106	-.039	-.375	.003
	Accessibility	.353	.164	.290	2.158	.000
	Offering	.186	.137	.179	1.355	.002
	Trust	-.050	.102	-.053	-.488	.001
	EU	.272	.129	.246	2.102	.004

a. Dependent Variable: Satisfaction

Source: Compiled from collected data

The outcome of the regression analysis demonstrates the effect of the independent variables, Security, Accessibility, Offerings, and Trust, on the dependent variable, Customer Satisfaction, as indicated by the adjusted R² value. The corrected R² value is .273, indicating that the independent factors account for 27.3% of the variation in the dependent variable. As a result, our theory is rejected. The autocorrelation is assessed using the Durbin-Watson test. The D-W value is 1.688, indicating that the dependent variable's autocorrelation is substantially within the acceptable range for linear regression. The regression analysis result illustrates how the independent variable, Accessibility, affects the dependent variable, Customer Satisfaction, as indicated by the adjusted R² value. As a result, our theory is rejected. This suggests that accessibility has a large and beneficial impact on customer satisfaction. The autocorrelation is assessed using the Durbin-Watson test. The Durbin Watson value is 1.668, indicating that the dependent variable's autocorrelation is substantially within the acceptable range for linear regression. This also suggests that

Offerings has a large and beneficial impact on Customer Satisfaction. The autocorrelation is assessed using the Durbin-Watson test. Customer satisfaction greatly influenced by trust. This suggests that User-friendliness has a positive and considerable influence on Satisfaction of the consumer. The autocorrelation is assessed using the D-W test.

The primary goal of this research was to determine customer perception and satisfaction towards digital banking. Indian people have a great faith and trust on digital banking financial services. The digital banking system will concentrate the various financial services provide the accountholders and then awareness level of employees is need to be improved. Regression analysis's output illustrates the effect of security on customer perception. Thus, our hypothesis is rejected. This indicates that Security is having positive and significant impact on Customer Perception. Accessibility's impact on the dependent variable as a result of the independent variables Customer perception is represented by the adjusted R2 value. The dependent variable's variation is explained by the independent components by 54.2%, according to the revised R2 value of.542. As a result, our theory is rejected. This demonstrates that accessibility has a favourable and significant impact on customer perception. The results of the regression analysis show that Security, the independent variable, has an effect on Customer Satisfaction, the dependent variable, as shown by the adjusted R2 value. The dependent variable's variation is explained by independent factors by 27.2%, according to the revised R2 value of.272. As a result, our theory is rejected. This demonstrates the quality of services has a large and positive influence on satisfaction of the customers. According to the findings, security, offerings, accessibility, trust, and simplicity of use all have a significant and beneficial impact on customer perception and happiness.

VII. 5. Conclusion

Consumer preferences are evolving, necessitating new methods to use financial services and novel digital technology. Banks are now being forced to accelerate their adaption to fresh digitalization in order to avoid falling behind in the digital market sector. Efforts must be made to encourage more digital banking transactions, particularly among rural residents. However, a lack of computer and internet skills poses a barrier. Whereas the use of digital banking for improved service is required. The sustainability of digital banking is dependent not only on cutting-edge technology, but also, to a larger extent, on the attitudes, interest, involvement, and commitment of customers in general, and rural people in particular. As a result, the era of online banking in India is very bright, and we should expect the banking sector to adopt many newer creative services. However, the banking sector faces a number of difficulties, including a lack of networking facilities poverty, economic laggard ship, and the sizeable population of the nation. It signals a significant change in how banks as well as other financial institutions analyses customer engagement and how to impress them. As a result, it is said that customers generally favor digital banking services.

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