



The Impact of Digital Banking on Consumer Behavior and Banking Accessibility: A Case Study of Indian Banks

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Abstract

This research aims to discourse concern of consumer behavior and accessibility of banking via digital banking and majorly focusing on the Indian banks. In the recent past, there has been a shift towards using digital banking and this has changed practices in banking immensely and also the way consumers access the banking services. This paper focuses on the influence of some digital banking facilities like mobile banking, online banking, digital wallets on the consumer behavior, choice and ease. Further, the study examines the influence of digital banking in to increasing financial inclusion by offering banking services to individuals who are mostly ignored by the traditional banking industry, and/or residing in the rural areas. The study aims to reveal the consumers' views, satisfaction levels, and challenges towards digital banking and the use of survey, interviews, and cases of major banks in India. The study therefore indicates that despite the benefits of adopting digital banking that reduces the cost of accessing banking services through the internet, enhancing efficiency, the constraints like digital knowledge, security, internet connection hampers the usage of the services, especially in the rural areas. Lastly, the paper makes policy recommendations on how to modify & safeguard digital banking infrastructure and thus target the consumer behavior intending to facilitate the consumer and banking system more systematically in the context of India.

Keywords - Digital Banking, Consumer Behavior, Banking Accessibility, Financial Inclusion, Mobile Banking, Online Banking

Introduction

Since the entry of the latest technology in the financial era, the banking sector has not been shielded from change. Offering banking services through the web and apps, digital banking has become a new way through which consumers interact with the banking sector. Currently, with the rapid development of internet facilities along with the smart phones digital banking is considered as one of the viable ways to enhance the banking facilities where the population of the country is a key factor such as India. This has led to the questioning of the old paradigms of banking which in this new world revolves around accessibility and expediency of services. As the Indian banking system has only recently become predominantly urbanized since its inception in 1969 while still largely rural, digital banking provides itself as a great chance. Thus, increasing the possibility of consumers in the most remote areas of the country to receive banking services without physically visiting a credit institution, digital banking can contribute to the problem of financial exclusion. Still, it is seldom that the digital banking has been embraced across the demographics of the population because hurdles, including inadequate Carson digital fluency, concerns over cybersecurity, and inadequate access to connectivity, come in the way.

This paper's aim is to analyze the role of digital banking in the behavior of consumers and banking services' availability in India. It aims at using digital banking to know how consumer decision-making process is impacted, the forces of consumption, the contribution it has towards the improvement or limitation of banking services delivery. Hence the determination of this investigation is to comprehend the opportunities and challenges of serving the consumers. These objectives will be achieved through a case study of major Indian banks and a survey of consumers across different regions of India. The results of this research will be beneficial to the banking industries and policymakers to improve on those digital banking services to cover consumers need to access the banking services.

Literature review

The necessity was brought by COVID and other serving as the driving force for the changes that took place in the digital transformation of the banking system, changing the product and service structure in the financial industry. Fixing to the thought of Leal Filho et al. (2020) and



Awan et al. (2020), the multilevel governance is essential for creating a favourable environment for the shift from the old to the new paradigms. This has led to the appearance of new actors in the banking industry because most of the activities have shifted from manual to digital. Digital alteration in banking mentions to the change process in management, organizational culture, and introduction of technology among others. The increase in Internet banking and other sophisticated supplementary application software application and database developments has raised the pace of competition in offering safer round the clock client operational services. Therefore, through these trends, many of what were once traditional banks are considered to be digital banks.

With the advancement of internet technology in use it will eventually get to a point that everyone will have no option other than embrace online banks to meet his or her all needs and demands. Thus, for bank customers, this is an entropy from the existing situation, at least it is not entirely positive. Due to this, consumers are likely to change their behavior and this may affect their satisfaction level than before. Such digital services or goods may not make customers happy. The pressures come in the form of meeting society needs and costs besides satisfying the needs of potential customers while managing to provide a perfect, tailored, and secure experience to clients are hallmarks of competition. To a large extent, customers' happiness with Digital banking services and goods rely with the information on how sound or otherwise the risk issues are.

Therefore, with increasing competition and to deliver what customers need, the banking sector has to improve and ensure the delivery of quality web-based technical services (Zaidi and Rupeika-Apoga 2021). The convenience and fast tempo that is associated with digital platforms have made the consumer and companies to change their mind that they had made a mistake in avoiding the digital channel (Grima et al. 2020). For this, it is necessary to carry out large-scale reforms throughout all the company's organizational processes with a focus on the customer-oriented approach, as well as analyzing and redesigning the companies' digital image and performance (Girlando et al. 2021; Pavia et al. 2021; Grima et al. 2021a).

Quite simply, what is referred to when one mentions the digital banking is the fact that all the services that were offered by banking institutions are now offered online. Such services will enable them perform activities such as loan management, payment of bills, account data examination, access to information on activities which have already occurred, balance checking, etc. Digital banking it is said to offer a Secure way of transacting financially from home at any time by using your own personal desktop, laptop, mobile phone or tablet or the banking Apps. As stated by Japparova and Rupeika-Apoga in 2017, this is quite useful as it speeds things up. It is usually confusing for customers to distinguish between the terms of Digital Banking, Online Banking, E-banking, Mobile Banking and Internet banking. This is not just one model, which could be adopted, but an all overhauling of a banking system that is done through digital banking. The term "digital banking" is defined as the delivery of all unit programs/customer and related activities in a digital format. they will be involve all of the banking programs or transactions made in future by any bank or its consumers. Thus, to counteract cyber threats and frauds, it is possible to list the currently enacted and planned rules and laws; one of them is the Digital Operations Resilience Act, planned to enter into force in 2022. However, what is the magnitude of the primary risk variables to have an influence to the happy customers? Consequently, banks are closer to failing to meet consumer needs and expectations due to digitization. The citizens of any country, which is the lifeblood of every bank, are asked to perform something unusual which is painful to their interposing and tends to cause a new kind of vagary. Thus, based on such risks, it is essential to evaluate the degree of risk factors that influence customer satisfaction in delivered digitalized banking services and products (Grima et al. 5021b).

In the studies on digital banking, it is quite unknown or still unclear how various digitalization-related risks affect consumers' happiness. The benefits of the digital banking include the fact that it is safe and convenient, but the challenges include among others the fact that it may take



some time for the customers to adopt the new methods, existence of a high risk of cyber crimes, and the risk of developing tendencies away from the more traditional forms of banking. Even though there have been studies done in the past on digital banking and the consumer behavior, there are very few studies that have investigated on the impact level of the risk factors outlined above on the happiness of the digital banking customers and their loyalty levels. For banks to enhance the strategies used in developing other services to transform the enabling digital trade-off amongst service quality, security, risks, and customer gratification, further investigation needs to be directed on the correlation between digital transformation and risks and customers' satisfaction.

Objectives of the study

- To assess the influence of digital banking on banking accessibility in urban and rural areas.
- To identify the key risk factors affecting customer satisfaction with digital banking services.
- To evaluate the role of digital banking in enhancing financial inclusion in India.

Hypothesis:

H₀: There is no significant relationship between the key risk factors (such as security concerns, usability issues, and customer adaptation challenges) and customer satisfaction with digital banking services.

H₁: There is a significant relationship between the key risk factors (such as security concerns, usability issues, and customer adaptation challenges) and customer satisfaction with digital banking services.

Research methodology

Thus, for the aim of the present research, the research paradigm to be employed will be the mixed-methods research design where the investigator will use both quantitative and qualitative data. In the quantitative aspect, there will be structured questionnaires that will be used to interview a sample of the digital banking consumers in different regions in India concerning their experience, perception and level of satisfaction on the services offered through digital banking. Objective data will be collected using Likert-scale questions, which purpose is to assess such parameters as security issues, usability, customers' adaptation problems, and level of satisfaction. The second part would therefore require a quantitative study that will entail surveying a number of customers that will enable the researcher understand their experience, the challenges they encounter and their expectations of digital banking platforms. Descriptive statistics and multiple regression will be used in analysing data to determine the relationship that exists on the various risk factors and customer satisfaction. Thematic analysis shall be used for categorizing and analyzing qualitative data to determine some of the common modes whereby customers are served in the market. Through the application of this framework, the study will be able to capture all the dimensions of customer satisfaction influenced by digital banking as well as identify the associated risks in detail.

Data analysis and discussion

Table 1 – Descriptive statistics

Variable	N	Mean	Standard Deviation (SD)	Minimum	Maximum	Skewness	Kurtosis
Security Concerns	325	3.45	0.89	1	5	0.23	-0.47
Usability Issues	325	3.60	0.95	1	5	0.15	-0.41
Customer Adaptation Challenges	325	3.12	1.03	1	5	0.47	-0.32
Customer Satisfaction	325	4.02	0.72	1	5	-0.12	-0.62



The table 1 lists down the demographic characteristics of respondents in relation to risk factors regarding the use of digital banking services and the satisfaction rating that the respondents have provided.

Concerns: Average of total score is 3.45, According to above table it is cleared that respondents have moderate level concern in terms of safety of digital banking services. Most of the respondents seem to share the same level of concern since the standard deviation is low at 0.89. The total of 0.23 indicates a slight shift to the right which implies relatively high levels of security concern while the total of -0.47 means that majority of the responses are clustered in the middle; the distribution is not a peaked or sharp one thus few extreme results of high or low security concerns.

Usability Problems: The mean of 3.60 from the respondents suggest that usability problems are moderately perceived for digital banking platforms. A coefficient of variance of 0.95 is high indicating that some users have little difficulties though others have many, so it shows high variability. It shows that skewness value is equal to 0.15 which is near to zero that is normally distributed and kurtosis value is equal to -0.41 which is less than zero which mean that the distribution is flatter than the normal distribution.

Customer Adaptation Challenges: According to the mean scores taken into cognizance, which was 3.12, the customer experienced moderate difficulty in the adaptation to the new digital banking services. Standard deviation having a value of 1.03, it can be hypothesized that the experiences are much more dispersed implying that while there are many consumers who do not have much difficulty in the adaptation there are numerous other customers who experience a lot of difficulties. Evidence regarding the response distribution is that 38% of respondents experience some challenges, albeit to a moderate level, hence the positive skewness of 0.47 while the kurtosis is -0.32, which can be termed as slightly less peaked than normal.

Customer Satisfaction: The mean of 4.02 reveals a relatively high level of satisfaction with digital banking services. To some extent, the value of average customer satisfaction is in range with 0.72 of standard deviation, which means that respondents' satisfaction is quite homogenic and doesn't significantly differ from each other. The value of skewness (-0.12) indicates that there have been a large percentage of respondents with an extreme level of satisfaction while kurtosis of (-0.62) gives an understanding that this distribution is less peaked than the normal distribution and contains fewer cases of extreme responses.

In summary, the achieved data indicates that customers have middle anxiety in relation to security and convenience factors but are rather satisfied with branches of digital banking in spite of difficulties in adaptation to the digital environment. Variations in all the variables are moderate meaning that the respondents have rather different experiences in the matter.

Table 2: Multiple Regression Analysis – Relationship Between Key Risk Factors and Customer Satisfaction

Model	Unstandardized Coefficients (B)	Standardized Coefficients (β)	t-value	p-value	95% Confidence Interval for B
	B	Std. Error	Beta		Lower Bound
Constant	1.120	0.180		6.222	0.000
Security Concerns	0.320	0.045	0.305	7.111	0.000
Usability Issues	0.220	0.042	0.225	5.238	0.000
Customer Adaptation Challenges	0.175	0.051	0.188	3.431	0.001



Table Interpretation:

- Intercept: The constant of regression model is 1.120, which shows the net level of customer satisfaction if all four independent variables are zero. The 'p' less than 0.05 means that the observed value is statistically significant at 0.000 p-values.
- Security Concerns: The coefficient (B) for security concerns is 0.320, this indicates that with every increase in the security concerns by 1 unit, then the level of customer satisfaction is expected to rise by 0.320 units, other parameters being constant. The t-value equal to 7.111 and the p- value of 0.000 highlight the fact that security concern influence customer satisfaction. Thus, the 95% confidence interval (0.231 to 0.409) exclude the zero hence enhancing the significance of the findings.
- Usability Issues: The coefficient (B) calculated for usability issues is 0.220, this is suggestive of the fact that one unit increase in usability issues will lead to 0.220 units increase in customer satisfaction. From the above results the p-value is 0.000, the t-value is 5.238 making evident of the nature of the effect. The confidence interval (0.137 to 0.303) also shows a positive effects for the relationship under study.
- Exploring the results of the regression analysis we have estimated that the value of B coefficient referring to customer adaptation challenges equals to 0.175 meaning that the more adaptation challenges for customers are stated the more the satisfaction level will augment the value by 0.175. Hypothesis 4: Male and Female Employees have Significant difference in Turnover Intention The UGMA has a t-value of 3.431 with the p-value of 0.001, thus making this factor significant. Thus, the obtained confidence interval (0.075; 0.275) indicates the significance of the effect.

R² (Coefficient of Determination):

Model Summary	R	R ²	Adjusted R ²	Std. Error of the Estimate
Model 1	0.732	0.536	0.528	0.554

R² = 0.536: This means that up to 53.6% of the variations in customer satisfaction were accounted for by the independent factors; security concerns, usability, and the challenges which customers face while trying to adapt to the system acquired through the new QNMS. This is quite a reasonable level of interpretability for the model.

This indicates that H₁ is supported because all the three independent variables; security concerns, usability and customer adaptation challenges were established to cause a negative effect in customer gratification through digital banking facilities.

Conclusion

The aim of this research was to explore the correlation amongst influences that are actually considered as threats to the effective implementation of DCBSs as well as customer adaptability difficulties to the level of customer satisfaction with such services. Accordingly, the analysis of the result indicates that all the three forms of risk factor positively influence the level of consumer gratification. First, security concerns, second, usability issues, third, adaptation factors – all these factors define how consumers react and experience the banking services delivered through digital means.

This study therefore posited that with increase in security concerns, usability issues and customer adaptation challenges, customer satisfaction with digital banking services will increase but to a differing extent. As reflected from the aforementioned study, it emerges that it is critical to reduce the said risks in a bid to improve the odds of making the consumer involvement in a digital banking context an positive one. Organizations in the financial sector can thus admit to upgrading the security of their platform, improving the functionalities of the various interfaces used in the blending of banking services as well as coming up with ways and means that will help the customers adopt the new form of banking.

In addition, the research reveals that digital banking practices can enhance the possibilities of improving populace's access to banking facilities in the areas including in rural and other unbanked zones. However, before the continued expansion of digital banking as well increase



in client satisfaction, the following challenges identified have to be responded to by the various banks.

In conclusion, it is important to state that the usage of digital technologies in banking also creates various chances for the development of improved customer relations but also various risk factors which have to be considered. Thus, adjusting to these key risk factors, the banks can advance customer gratification as well strengthen their roles and positions in the face of the consistent changes in the banking market conditions amid the advancing trends of the digitalization of banking services.

References

- Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International Journal of Bank Marketing*, 34(3), 280–306. <https://doi.org/10.1108/IJBM-11-2015-0152>
- Awan, U., Kraslawski, A., & Huiskonen, J. (2020). Progress from blue to the green world: Multilevel governance for pollution prevention planning and sustainability. In C. M. Hussain (Ed.), *Handbook of Environmental Materials Management* (pp. 1–22). Springer. https://doi.org/10.1007/978-3-030-30372-4_1
- Awasthi, A., Chauhan, S. S., Omrani, H., & Panahi, A. (2011). A hybrid approach based on SERVQUAL and fuzzy TOPSIS for evaluating transportation service quality. *Computers and Industrial Engineering*, 61(3), 637–646. <https://doi.org/10.1016/j.cie.2011.02.004>
- Bauer, H. H., Hammerschmidt, M., & Falk, T. (2005). Measuring the quality of e-banking portals. *International Journal of Bank Marketing*, 23(2), 153–175. <https://doi.org/10.1108/02652320510584673>
- Bollen, K. A., & Ting, K. K. (2000). A tetrad test for causal indicators. *Psychological Methods*, 5(3), 3–22. <https://doi.org/10.1037/1082-989X.5.3.3>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brecht, F., Eckhardt, A., Berger, C., & Guenther, O. (2012). Corporate career presences on social network sites: An analysis of hedonic and utilitarian value. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 2441–2450). ACM. <https://doi.org/10.1145/2207676.2208386>
- Carrasco, R. A., Muñoz-Leiva, F., Sánchez-Fernández, J., & Liébana-Cabanillas, F. J. (2012). A model for the integration of e-financial services questionnaires with SERVQUAL scales under fuzzy linguistic modeling. *Expert Systems with Applications*, 39(11), 11535–11547. <https://doi.org/10.1016/j.eswa.2012.02.013>
- Chingang Nde, D., & Lukong, P. (2010). Using the SERVQUAL model to assess service quality and customer satisfaction: An empirical study of grocery stores in Umeå. Umeå University [URN]. Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-35008>
- Chong, A. Y. L., Ooi, K. B., Lin, B., & Tan, B. I. (2010). Online banking adoption: An empirical analysis. *International Journal of Bank Marketing*, 28(5), 267–287. <https://doi.org/10.1108/02652321011065175>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Deb, M., & Lomo-David, E. (2014). An empirical examination of customers' adoption of m-banking in India. *Marketing Intelligence & Planning*, 32(4), 475–494. <https://doi.org/10.1108/MIP-06-2013-0084>
- Dincer, H., Yüksel, S., & Martínez, L. (2019). Analysis of balanced scorecard-based SERVQUAL criteria based on hesitant decision-making approaches. *Computers & Industrial Engineering*, 131, 1–12. <https://doi.org/10.1016/j.cie.2019.03.009>



- Farrugia, A., & Grima, S. (2021). A model to determine the need to modernise the regulation of the principle of utmost good faith. *Journal of Financial Regulation and Compliance*, 29(4), 454–473. <https://doi.org/10.1108/JFRC-07-2020-0144>
- Fernández-Rovira, C., Álvarez Valdés, J., Molleví, G., & Nicolas-Sans, R. (2021). The digital transformation of business: Towards the datafication of the relationship with customers. *Technological Forecasting and Social Change*, 162, 120339. <https://doi.org/10.1016/j.techfore.2020.120339>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Garson, D. G. (2016a). Analysis residuals in partial least squares: Regression and structural equation models. Statistical Associates Publishers. Retrieved from <http://www.statisticalassociates.com/pls-sem.htm>
- Garson, D. G. (2016b). Confirmatory tetrad analysis in partial least squares: Regression and structural equation models. Statistical Associates Publishers. Retrieved from <http://www.statisticalassociates.com/pls-sem.htm>
- Garson, D. G. (2016c). Multicollinearity analysis in reflective models in partial least squares: Regression and structural equation models. Statistical Associates Publishers.
- Girlando, A., Grima, S., Boztepe, E., Seychell, S., Rupeika-Apoga, R., & Romanova, I. (2021). Individual risk perceptions and behavior. In S. Grima, E. Özen, & H. Boz (Eds.), *Contemporary studies in economic and financial analysis* (pp. 367–436). Emerald Publishing Limited. <https://doi.org/10.1108/9781800710532-013>
- Grima, S., Kizilkaya, M., Rupeika-Apoga, R., Romānova, I., Dalli Gonzi, R., & Jakovljevic, M. (2020). A country pandemic risk exposure measurement model. *Risk Management and Healthcare Policy*, 13, 2067–2077. <https://doi.org/10.2147/RMHP.S280105>
- Grima, S., Hamarat, B., Özen, E., Girlando, A., & Dalli-Gonzi, R. (2021a). The relationship between risk perception and risk definition and risk-addressing behaviour during the early COVID-19 stages. *Journal of Risk and Financial Management*, 14(6), 272. <https://doi.org/10.3390/jrfm14060272>
- Grima, S., Kizilkaya, M., Sood, K., & ErdemDelice, M. (2021b). The perceived effectiveness of blockchain for digital operational risk resilience in the European Union insurance market sector. *Journal of Risk and Financial Management*, 14(10), 363. <https://doi.org/10.3390/jrfm14100363>
- Gudergan, S. P., Ringle, C. M., Wende, S., & Will, A. (2008). Confirmatory tetrad analysis in PLS path modeling. *Journal of Business Research*, 61(12), 1238–1249. <https://doi.org/10.1016/j.jbusres.2008.02.006>

