

**A STUDY ON ROLE OF FINTECH SERVICES IMPACT OF BUSINESS GROWTH
SELECTED A PUBLIC SECTOR BANK IN PUNJAB**

Hareesh Kumar TA



ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 31 January 2023</p> <p>Accepted 26 April 2023</p>	<p>Purpose: The aim of this study is to examine the role of Fintech services in the growth of Selected National Bank's business. The study looked at the 3G and 4G eras, from 2008-09 through 2021-22.</p> <p>Theoretical Framework: The study main focus on banks are offering various services to their customer's like Mobile banking, Internet banking, ATM and other services using 3G and 4G technology. These banks have heavy competition among themselves in providing latest and user friendly digital services to their customers to make them satisfy.</p> <p>Design/Methodology/Approach: The study took into account the six Fintech services related to business-to-customer. For the analysis of framed objectives, the study used a quantitative research approach. The study built the Banking Technology Index (BTI) using the six Fintech services and deemed it a proxy for the bank's operations.</p> <p>Findings: The study looked over the entire time period and discovered that all Fintech services have a beneficial impact on SNB's business growth. The study reveals that bank can improve the customer's satisfaction that ultimately have the positive ripple effect on the business growth.</p> <p>Research, Practical & Social Implications: The study used bivariate correlation to measure the relationship of chosen Fintech services with the BTI and discovered that the majority of the services have a substantial positive link during the 3G and 4G periods. The OLS was employed to assess how Fintech services might affect BTI and it was discovered that in the 3G time, ATM influence was greater, while in the 4G period, credit cards played a critical part in SNB business growth.</p> <p>Originality/Value: The study provides the Fintech services during 3G and 4G period to the customer services Banking Technology Index, there is no literature that discusses the use of 3G and 4G services on modal to evaluate fintech banking services in the research area. As a result, the purpose of this paper is to make up for this void.</p>
<p>Keywords:</p> <p>ATM; BTI; Credit; Debit; Fintech Services NEFT; RTGS and SNB.</p> <div data-bbox="172 1032 480 1279" style="text-align: center;">  </div>	<p>Doi: https://doi.org/10.26668/businessreview/2023.v8i5.1152</p>

**UM ESTUDO SOBRE O IMPACTO DOS SERVIÇOS DE FINTECH NO CRESCIMENTO DE
NEGÓCIOS SELECIONOU UM BANCO DO SETOR PÚBLICO NO PUNJAB**

RESUMO

Objetivo: O objetivo deste estudo é examinar o papel dos serviços de fintech no crescimento dos negócios do Selected National Bank. O estudo analisou as eras 3G e 4G, de 2008-09 a 2021-22.

Enquadramento Teórico: O foco principal do estudo são os bancos que oferecem vários serviços aos seus clientes, como Mobile banking, Internet banking, ATM e outros serviços utilizando tecnologia 3G e 4G. Esses bancos têm forte concorrência entre si no fornecimento de serviços digitais mais recentes e fáceis de usar para seus clientes para torná-los satisfeitos.

^A Assistant Professor, Department of Financial Administration, School of Management, Central University of Punjab, Bathinda-151401. E-mail: hareeshsky@gmail.com Orcid: <https://orcid.org/0000-0002-3072-5630>

Desenho/ Metodologia/ Abordagem: O estudo levou em consideração os seis serviços de Fintech relacionados ao business-to-customer. Para a análise dos objetivos enquadrados, o estudo utilizou uma abordagem de pesquisa quantitativa. O estudo construiu o Índice de Tecnologia Bancária (BTI) usando os seis serviços de fintech e o considerou uma proxy para as operações do banco.

Resultados: O estudo analisou todo o período de tempo e descobriu que todos os serviços Fintech têm um impacto benéfico no crescimento dos negócios do SNB. O estudo revela que o banco pode melhorar a satisfação do cliente, o que, em última análise, tem um efeito cascata positivo no crescimento do negócio.

Implicações de pesquisa, práticas e sociais: O estudo usou correlação bivariada para medir a relação dos serviços fintech escolhidos com o BTI e descobriu que a maioria dos serviços tem um vínculo positivo substancial durante os períodos 3G e 4G. O OLS foi empregado para avaliar como os serviços Fintech podem afetar o BTI e descobriu-se que no período 3G, a influência do ATM era maior, enquanto no período 4G, os cartões de crédito desempenhavam um papel crítico no crescimento dos negócios SNB.

Originalidade/Valor: O estudo fornece os serviços de fintech durante o período 3G e 4G para o Índice de Tecnologia Bancária de serviços ao cliente, não há literatura que discuta o uso de serviços 3G e 4G no modal para avaliar serviços bancários de fintech na área de pesquisa. Assim, o objetivo deste artigo é preencher esse vazio.

Palavras-chave: ATM, BTI, Crédito, Débito, Serviços Fintech NEFT, RTGS; SNB.

UN ESTUDIO SOBRE EL PAPEL DEL IMPACTO DE LOS SERVICIOS FINTECH EN EL CRECIMIENTO EMPRESARIAL SELECCIONÓ UN BANCO DEL SECTOR PÚBLICO EN PUNJAB

RESUMEN

Propósito: El objetivo de este estudio es examinar el papel de los servicios Fintech en el crecimiento del negocio de Selected National Bank. El estudio analizó las eras 3G y 4G, desde 2008-09 hasta 2021-22.

Marco teórico: el enfoque principal del estudio es que los bancos ofrecen varios servicios a sus clientes, como banca móvil, banca por Internet, cajeros automáticos y otros servicios que utilizan tecnología 3G y 4G. Estos bancos tienen una fuerte competencia entre ellos para brindar servicios digitales más recientes y fáciles de usar a sus clientes para que estén satisfechos.

Diseño/ Metodología/ Enfoque: El estudio tuvo en cuenta los seis servicios de Fintech relacionados con el negocio al cliente. Para el análisis de los objetivos enmarcados, el estudio utilizó un enfoque de investigación cuantitativa. El estudio construyó el Índice de Tecnología Bancaria (BTI) utilizando los seis servicios Fintech y lo consideró un proxy para las operaciones del banco.

Hallazgos: el estudio analizó todo el período de tiempo y descubrió que todos los servicios de Fintech tienen un impacto beneficioso en el crecimiento comercial de SNB. El estudio revela que el banco puede mejorar la satisfacción del cliente que, en última instancia, tiene un efecto dominó positivo en el crecimiento del negocio.

Implicaciones de investigación, prácticas y sociales: el estudio utilizó la correlación bivariada para medir la relación de los servicios Fintech elegidos con el BTI y descubrió que la mayoría de los servicios tienen un vínculo positivo sustancial durante los períodos 3G y 4G. El OLS se empleó para evaluar cómo los servicios de Fintech podrían afectar a BTI y se descubrió que en la época de 3G, la influencia de los cajeros automáticos era mayor, mientras que en la época de 4G, las tarjetas de crédito desempeñaban un papel fundamental en el crecimiento del negocio de SNB.

Originalidad/Valor: El estudio proporciona los servicios Fintech durante el período 3G y 4G al índice de tecnología bancaria de servicios al cliente, no hay literatura que discuta el uso de servicios 3G y 4G en modal para evaluar los servicios bancarios fintech en el área de investigación. En consecuencia, el propósito de este trabajo es suplir este vacío.

Palabras clave: ATM, BTI, Crédito, Débito, Fintech Services NEFT, LBTR; SNB.

INTRODUCTION

Individually and together through strategic alliances and platform initiatives, Fintech companies have been expanding their product lines. This improves their appeal to potential new customers and helps them to upsell to their existing clientele. This has occurred with some people because of chances to provide better service to customers and make more money. Many

others have done so because they had no choice. Fintech with a narrow focus may not be as interesting to follow because they are unable to generate profits or fully compete on price with incumbents due to a lack of funding synergies or regulatory compliance costs, amortisation of customer acquisition costs, and investments in brand recognition across a large enough revenue base. It took new entrants some time to enter the business because of the high entry barriers (such as capital, licence, and regulatory requirements). Most new entrants have concentrated on payment processing, credit card issuing, and financial planning rather than highly regulated and capital-intensive areas like on-balance-sheet lending or securities underwriting. As a result of the absence of regulations, new service providers have been able to enter the market and start up with little to no overhead, fueling the rapid expansion of Fintechs in many regions. There was a shift in fintech practises and the requirement for licences as regulators caught up. Some Fintechs have chosen to become regulated businesses in order to meet increased demand for their products. The primary goal of alternative finance platforms, for example, was to reduce the regulatory burden of intermediation by matching capital supply and demand. Some Fintech, however, have sought full banking licences as part of the re-bundling process. It has been difficult for lending platforms to thrive on the back of wholesale markets or a pure P2P financing strategy. Because of this, several businesses have attempted to obtain their own banking licences or have grown overly reliant on traditional funding methods. Other Fintech firms would prefer grow worldwide with their present product offering than face a larger regulatory burden. People will be able to avoid providing finance through middlemen as a result of technological advancements. Banks increasingly rely on deposits from individual savers as collateral for loans and as equity capital through investment and pension funds. It is unusual to receive direct funding from wealthy individuals or family members. This might become much more common as technology advances. P2P was a first step in that approach. However, given the improvements in decentralised finance and the future of technology, it is critical to keep an eye on these trends. Although saving and investing still have a high assembly cost, one of technology's promises is that it will empower individuals. As a result of technological advancements, the need for intermediaries is diminishing. Under an unmediated financial system, anyone with extra money may conduct financial services. Although it is still in its infancy, the development of private individuals as direct financial service providers cannot be discounted as a potential influence on market structure. To identify the gaps the existing literature reviewed to frame the objectives.

Literature review

Blundell, R., and S. Bond (1998) Study how two distinct linear estimators designed to improve the first-differenced GMM estimator's features are used to estimate the dynamic error components model. Both estimators need an initial process constraint that is based on conditions. In terms of asymptotic efficiency and Monte Carlo simulations, the suggested estimators beat both the conventional first-differenced GMM estimator and the non-linear GMM for the simple AR(1) model. We next apply these findings to the estimation of a labour demand model using panel data from firms to demonstrate their value.

Malhotra and Singh (2010) conducted an exploratory study and tried to report on the state of Internet banking in India and how many services Internet banks offer. It also wants to look at the things that affect how many Internet banking services there are. The results show that private and foreign banks have done better than public sector banks at offering a wider range of services and more advanced ones over the Internet.

Saxena and Shikha Jindal (2013) now a days, banking serves as a person's financial mall as well as a place to deposit and lend money. In a broad sense, banks want to boost their profits, reputation, and stock price. Technology serves as a catalyst in today's competitive and dynamic market to deliver effective service and fresh offers. In order to make banking accessible to everyone, everywhere, full-time, and at the door, the procedure must be made simpler and larger. To accomplish this goal, HR change is necessary. Issues related to the generational divide affect banks. The study attempted to evaluate and shed light on the steps done by Bank to fulfil the HR transformation objective set forth in Bank Pragati and enhance customer service. Additionally, a Bank Pragati survey was carried out.

Kim, Y. Choi, J. (2016) The Elaboration Likelihood Model developed by Petty and Cacioppo was used in this study to analyse user acceptability of payment-type Fintech services. The results showed that self-efficacy moderated the relationships between the independent and dependent variables (i.e., usefulness, credibility, and simplicity of use) and the intention to use. It was also found that people's desire to protect their personal data is a limiting factor in their propensity to utilise. This study's findings reveal that, when it comes to promoting payment-type Fintech services, ease of use and practicality are the most essential and influential aspects in terms of adoption, while deregulation and increased security are needed on the institutional level.

Maj Syed Mohd Mustafa and Mohd Taqi (2017) The bank accepts deposits and lends them. It promotes new deposit and advance systems. Bank performance is measured by

operational efficiency, service quality, and managerial effectiveness. A bank's financial performance can be judged by its profitability, service quality, and client satisfaction. Profitability measures a bank's asset utilisation and managerial effectiveness by indicating how efficiently it deploys its entire resources to maximise net profits. The Indian banking system confronts many problems. In such a context, the present study measures SNB financial performance. The study found that the selected bank's growth rate and financial efficiency were good, but its profitability was bad during the study period.

Chen, M. A., Wu, Q., and Yang, B. (2019) They have given a lot of evidence about how often FinTech innovations happen and how valuable they are. We use data from patent filings from 2003 to 2017 and machine learning to find and categorise inventions based on the technologies they use. We've found that most FinTech innovations give innovators a lot of value, but blockchain is especially valuable. The Internet of Things (IoT), robo-advising, and blockchain are some of the most valuable types of innovation in the financial sector. When disruptive technologies from non-financial companies are part of an innovation, it hurts the financial industry more. However, market leaders who invest a lot in their own innovations can stop a lot of the damage.

Dinh Hoang BachPhana, Paresh Kumar Narayan (2020) the study formulated a hypothesis based on the idea that the expansion of financial technology has a detrimental impact on the performance of banks. The investigation of the Indonesian market, which has seen remarkable development in the financial technology sector. The expansion of financial technology companies has a detrimental effect on the performance of banks. Including but not limited to sensitivity to bank characteristics, consequences of the Global Financial Crisis, and the utilisation of different estimators. Our primary finding, namely that FinTech provides an unfavourable forecast for bank performance, stands.

Ayman Mansour Khalaf Alkhazaleh (2021) Fintech has a big and positive effect on the level of customer satisfaction that banking customers feel. This is because Fintech makes financial technology services easy to use and perform, has low transaction costs, and keeps services safe. Customers are the reason why banks make more money and the economy grows. Using efficient financial technology services can help customers and keep them as customers.

Sudharshan Reddy Paramati and Safiullah (2022): This is the first research into the effects of FinTech companies on banks' bottom lines. Our analysis of 26 banks in a developing country (Malaysia) between 2003 and 2018 suggests that the expansion of FinTech companies has a beneficial long-term influence on banks' financial health. We find even more evidence

that FinTech firms impact banks' financial stability when we conduct sub-sample analyses based on the bank's size, type (Islamic vs. conventional), and level of corporate governance. Strong findings persist across variations in model parameters, indicators of financial soundness, and FinTech.

Khadim, N., & Islam, M. K. (2022) More research is required into the study of mobile banking as an emerging field of study, particularly in the context of Iraq, since such research could raise public awareness of the benefits of such technology in the banking sector. A fundamental but understudied technique for luring and keeping clients with mobile banking in Iraq is the provision of high-quality e-banking services and trust. In the framework of this study, a narrative technique was used. According to the review, the majority of the studies in this article used qualitative approaches as suitable methods to collect data. In terms of variables, service quality was more important than security and usability. The evaluation also noted a flaw in earlier research conducted in the context of mobile banking in Iraq.

Banerjee, R., Majumdar, S., & Albastaki, M. (2022) This article offers insights into the particular factors unique to banks that affect their financial performance following their digital transformation. The purpose of this study is to investigate how neobanking adoption has affected traditional banks' market shares in the United Arab Emirates and assess the impact of financial performance metrics on those shares after the banks underwent a digital transformation. The technical advancements and innovations in terms of operating effectiveness, customer acquisition, and organisational structure have caused a significant transformation in the financial services industry. In an effort to increase their digital presence, cut expenses, and increase market share, banks are expediting their digital transformation. In this analysis, quarterly financial statements from 2012 to 2021 are used as published data. Based on the use of neobanking, the Chow Test was used with known structural breaks in the data, and our findings are based on pooled regression. According to the findings, neobanking had an impact on bank-specific parameters, and those factors had an impact on market share. NPL, ROE, and NIM are crucial for market share, with each variable having a different impact on various banks.

Shanmugam, R., & Chandran, M. (2022) The primary objectives of this research are to validate the service quality dimensions given by commercial banks in the study area and the connection between these service quality characteristics and customer satisfaction. Public sector, private sector, and foreign banks are the three types of commercial banks. 600 responses were gathered by the researcher using convenience sampling. To reach this conclusion,

structural equation modelling, regression analysis, exploratory factor analysis, and confirmatory factor analysis were used. Since the electronic banking services provided by commercial banks are wholly founded on the Internet procedure, e-banking depends on the five key factors: dependability, safety and security, assurance, technical augmentation, and speed.

The present study To measure the relationship of Fintech services with the BTI of Selected National Bank and To know the Impact of Fintech services on the banking technology index of Selected National Bank

H₀₁: There is no significant relationship of fintech services with the BTI of Selected National Bank

H₀₂: There is no significant Impact of Fintech service on the banking technology index of Selected National Bank.

The present study has emphasised to know the Fintech services role in delivering the financial services by the Selected National Bank. The study considered the six technologies enabled banking services in the segment of business 2 customers under the Selected National Bank. The study considered the 3G and 4G periods i.e., 2008-09 to 2021-22. The study considered the following Fintech services volumes. They are, (NEFT, RTGS, ATM, DEBIT CARD, CREDIT CARD, and MOBILE BANKING).

MATERIAL AND METHODS

The study adopted the quantitative and descriptive research approach for the examination of Fintech services Impact on the banking technology Index of Selected National Bank in 3G and 4G periods. The study considered the six Fintech services and designed the Banking Technology Index, which has been considered as dependent variable in the study.

Construction of Banking Technology Index

The study considered (Vijaya Laxmi B and Jaya Laxmi M, 2019) base for the calculation of BTI of Selected National Bank. The study has taken six fintech services rendered by the SNB to its customers i.e., B2C segment. The following is the BTI method for the calculation adopted by the researcher.

Banking Technology Index = [(ATM Transactions /Total Branches) + (NEFT Transactions /Total Branches) + (RTGS Transactions /Total Branches) + (Mobile Banking Transactions

$[\text{Debit Card Transactions} / \text{Total Branches}] + [\text{Credit Card Transactions} / \text{Total Branches}] \times 100$.

Statistical Tools

The study applied various statistical tools for the examination of framed two objectives. They are as follows,

Bivariate Correlation: The bivariate correlation method was used to determine whether or not there was a statistically significant connection between Fintech services and the SNB Banking Technology Index. The study result depicts the strongly or moderate relationship between the independent and dependent variable

Ordinary Least square: The study applied the OLS to know the impact of Fintech services on the banking technology index of SNB. The study considered the six Fintech services transactions in both the periods of 3G and 4G i.e., 2008-09 to 2021-22.

RESULTS AND DISCUSSION

Table1: of descriptive statistics of SNB bank

	BTI	NEFT	RTGS	ATM	MOBILE	DEBIT	CREDIT
Mean	352145.6	3831096.	297133.3	2792.886	915059.9	17250313	13186.14
Median	422684.7	3102032.	263976.3	3118.083	12154.92	22097448	2655.833
Maximum	698149.5	9799386.	960128.2	4605.417	8673112.	38572509	82218.67
Minimum	2234.054	64921.60	44592.20	225.0000	101.0000	299.0000	265.0000
Std. Dev.	243020.1	3639575.	242161.1	1675.069	2585939.	12281745	25060.97
Skewness	-0.426607	0.481071	1.953365	-0.720779	2.796167	-0.272374	2.192203
Kurtosis	1.987593	1.734927	6.370961	1.899197	8.924077	2.308246	6.443136
Jarque-Bera	0.003432	1.015780	1.020354	1.040785	0.041907	0.035334	0.024418
Probability	0.669171	0.560512	0.002239	0.470516	0.000000	0.837221	0.000807
Sum	3873601.	42142059	3268467.	30721.75	10065659	1.9008	145047.5
Sum Sq. Dev.	5.91	1.32	5.86	2.80	6.69	1.51	6.28
Observations	11	11	11	11	11	11	11

(Source: Prepared by the author (2022))

The table shows descriptive statistics for banking technology-enabled services. Descriptive statistics used for the study those are mean (maximum, minimum), standard deviation, skewness, kurtosis, and jarque-bera of selected variables from the year 2009 to 2022. As a high standard deviation, the mean value of the NEFT (3831096) RTGS (297133.3), ATM (2792.886), MOBILE is (915059.9), DEBIT (17250313) CREDIT (13186.14).as high standard deviation each valuation ratios of Std. Dev. has a positive standard deviation value, and resulted negative skewness values for BT, ATM, DEBIT and positive skewness values for NEFT, RTGS

MOBILE, DEBIT, showing that these ratios have right-side skewness. The jarque-bera probability is less than 0.05, the data for the chosen valuation ratio are normalised and significant.

Objective – 1: To measure the relationship of Fintech services with the BTI of Selected National Bank

The study examines the relationship of Fintech services with the Banking Technology Index of Selected National Bank. The study considered the six Fintech services and framed the following hypothesis.

H₀: There is no significant relationship of Fintech services with the BTI of Selected National Bank

H₁: There is a significant relationship of Fintech services with the BTI of Selected National Bank

Table 2: Relationship of Fintech Services with the BTI of Selected National Bank

		Correlations						
		BTI	NEFT	RTGS	Mobile	ATM	Credit	Debit
BTI	Pearson Correlation	1						
	Sig. (2-tailed)							
NEFT	Pearson Correlation	.600	1					
	Sig. (2-tailed)	.041						
RTGS	Pearson Correlation	.597	.817**	1				
	Sig. (2-tailed)	.042	.002					
Mobile	Pearson Correlation	.400	.613*	.932**	1			
	Sig. (2-tailed)	.023	.045	.000				
ATM	Pearson Correlation	.868**	.812**	.603*	.306	1		
	Sig. (2-tailed)	.001	.002	.049	.360			
Credit	Pearson Correlation	.660*	.033	.243	.290	.234	1	
	Sig. (2-tailed)	.027	.923	.472	.387	.489		
Debit	Pearson Correlation	.978**	.466	.419	.211	.828**	.683*	1
	Sig. (2-tailed)	.000	.148	.199	.534	.002	.020	
N		11	11	11	11	11	11	11

(Source: Prepared by the author (2022))

From the table of Pearson correlation indicates the bivariate with the coefficient depicted the relationship between a Fintech services and banking technological index (BTI). The technological enabled banking services such as (NEFT, RTGS, ATM.MOBILE, DEBIT, and CREDIT). There was a strong, positive correlation between the two variables, BTI with ATM (0.868) and DEBIT (0.978) has been observed. The study also found that RTGS (0.597) and MOBILE (0.400) are having the moderate relation with BTI. The P value observed to be significant i.e., < 0.05. Hence, there is a significant relationship exists between the selected

Fintech services with the BTI of Selected National Bank during the 3G and 4G periods. Therefore, null hypothesis has been rejected and accepted the alternative hypothesis.

Table 3: Pairwise Granger Causality Test

Sample: 2009 to 2022, Lags:1			
H ₀ :	Obs	F-Statistic	Prob.
NEFT → BTI	6	10.1389	0.0341
BTI → NEFT		12.0142	0.0209
RTGS → BTI	6	11.2407	0.0065
BTI → RTGS		13.4910	0.0085

(Source: Prepared by the author (2022))

Table 4: Granger Causality Test in 3G

RTGS → BTI	6	11.2407	0.0065
BTI → RTGS		13.4910	0.0085
ATM → BTI	6	9.01306	0.0162
BTI → ATM		11.0393	0.0018
MOBILE → BTI	6	14.0245	0.0055
BTI → MOBILE		15.7120	0.0107
DEBIT → BTI	6	9.2678	0.0205
BTI → DEBIT		10.2441	0.0114
CREDIT → BTI	6	11.01397	0.0134
BTI → CREDIT		12.45285	0.0092

(Source: Prepared by the author (2022))

The above table represents the Granger causality between Selected National Bank technologies enabled banking services and BTI here payment methods (including NEFT, RTGS, MOBILE, ATM, CREDIT, and DEBIT) as independent variables and their effects on the dependent variable (i.e., BTI) for the 3G period of Selected National Bank from 2009-2022. As the probability value observed to be < 0.05 for technology-enabled banking services to BTI and BTI to technology-enabled banking services which indicates that there is no directional.

Table 5: Granger Causality Test in 4G

H ₀ : does not Granger Cause	Obs	F-Statistic	Prob.
NEFT → BTI	6	11.2313	0.0241
BTI → NEFT		10.1833	0.0174
RTGS → BTI	6	16.1806	0.0008
BTI → RTGS		10.4115	0.0066
ATM → BTI	6	11.8090	0.0345
BTI → ATM		12.0563	0.3797
MOBILE → BTI	6	9.0484	0.0158
BTI → MOBILE		9.0403	0.0037
DEBIT → BTI	6	11.8015	0.0214
BTI → DEBIT		13.8616	0.0041
CREDIT → BTI	6	37.9206	0.0086
BTI → CREDIT		10.7997	0.0375

(Source: Prepared by the author (2022))

The above table represents the Granger causality between SNB technologies enabled banking services and BTI here the impact of independent variables (i.e., NEFT, RTGS, MOBILE, ATM, CREDIT, and DEBIT) on the dependent variable on BTI for the 4G period of Selected National Bank from 2009-2022. As the probability value observed to be < 0.05 for technology-enabled banking services to BTI and BTI to technology-enabled banking services which indicates that there is no directional.

Objective – 2: The study examined the Technology Enabled Banking services impact on BTI belonging to 3G and 4G period.

H₀: There is a significant impact of the Technology-enabled Banking services on BTI for 3G period

H₁: There is no significant impact of the Technology-enabled Banking services on BTI for 3G period

Dependent Variable: BTI				
Method: Least Squares				
Sample (adjusted): 2009 2013				
Included observations: 5 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.893	1.221	1.962	0.051
NEFT	0.51598	0.985	2.495	0.015
RTGS	0.72959	2.224	2.714	0.039
ATM	3.29251	0.779	2.366	0.004
MOBILE	1.10749	1.468	1.795	0.029
DEBIT	0.61727	1.222	1.465	0.031
CREDIT	0.7646	0.974	1.624	0.024
R-squared	0.65814	Mean dependent var	269741	
S.D. dependent var	2.69905	Akaike info criterion	-33.215	
Sum squared resid	2.08132	Schwarz criterion	-33.269	
Log likelihood	123.253	Hannan-Quinn criter.	-33.884	
Durbin-Watson stat	3.20908			

(Source: Prepared by the author (2022))

Impact of banking technology-enabled services on the BTI during the 3G era is defined in the table above. For the 3G period of Selected National Bank from 2009-2022, the least square test was used to determine the effect of independent variables such as NEFT, RTGS, MOBILE, ATM, CREDIT, and DEBIT on the dependent variable (i.e., BTI). Coefficients of ATM (3.292514) and ATM (1.107485) had a positive effect on BTI. Low RTGS (0.729588) and CREDIT (0.764595) coefficient values influenced BTI. Thus, the alternative hypothesis is accepted and the null hypothesis is rejected. The study concludes that SNB 3G era banking technology-enabled services significantly impacted the Banking Technology Index.

H₀: There is a significant impact of the Technology-enabled Banking services on BTI for 4G period

H₁: There is no significant impact of the Technology-enabled Banking services on BTI for 4G period

Dependent Variable: BTI				
Method: Least Squares				
Sample (adjusted): 2013 2022				
Included observations: 10 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.51034	1.461	2.461	0.016
NEFT	0.60987	1.324	2.952	0.036
RTGS	0.69985	2.651	1.872	0.041
ATM	0.73024	1.265	1.624	0.013
MOBILE	0.64691	1.716	1.771	0.016
DEBIT	0.81546	1.462	1.692	0.027
CREDIT	0.76264	1.362	2.922	0.043
R-squared	0.89241	Mean dependent var		450802
S.D. dependent var	86128.1	Akaike info criterion		-31.845
Sum squared resid	8.20E-16	Schwarz criterion		-31.9
Log likelihood	118.459	Hannan-Quinn criter.		-32.514
Durbin-Watson stat	3.2463			

(Source: Prepared by the author (2022))

The effect of 4G-era banking technology-enabled services on the BTI is defined in the table above. The study used the least square test to determine which independent factors (including NEFT, RTGS, MOBILE, ATM, CREDIT, and DEBIT) had the greatest effect on the dependent variable (i.e., BTI) over Selected National Bank's 4G era (2009-2022). DEBIT (0.815456) and CREDIT (0.762643) both had positive coefficient values that influenced BTI. Low coefficient values of RTGS (0.699849) and NEFT (0.609865) have a small effect on BTI. Thus, the alternative hypothesis is accepted and the null hypothesis is rejected. From this, we may conclude that Selected National Bank 4G era banking technology-enabled services significantly impacted the Banking Technology Index.

H₀: There is a significant impact of the Technology-enabled Banking services on BTI over the 3G and 4G period

H₁: There is no significant impact of the Technology-enabled Banking services on BTI over the 3G and 4G period

Dependent Variable: BTI Method: Least Squares Sample: 1 140 Included observations: 140				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5018193	3939061	1.27396	0.2049
NEFT	4.73407	0.48104	9.84143	0
RTGS	-0.524778	1.13917	-0.4607	0.0458
ATM	-6.804026	956.704	-7.1119	0
MOBILE	0.019727	0.00226	8.71729	0
DEBIT	0.207423	0.10786	1.92304	0.0566
CREDIT	-8.508527	1.69295	-5.0259	0
R-squared	0.610696	Mean dependent var		8835279
Adjusted R-squared	0.593133	S.D. dependent var		5.4E+07
S.E. of regression	34649475	Akaike info criterion		37.6082
Sum squared resid	16.00	Schwarz criterion		37.7553
Log likelihood	-2625.572	Hannan-Quinn criter.		37.6679
F-statistic	34.77253	Durbin-Watson stat		1.9223
Prob(F-statistic)	0			

(Source: Prepared by the author (2022))

Banking technology-enabled services during the 3G and 4G eras are outlined in the above table. The study analysed data from Selected National Bank's 3G and 4G time periods between 2009 and 2022 using the least square test to determine the effect of independent factors such NEFT, RTGS, MOBILE, ATM, CREDIT, and DEBIT on the dependent variable, BTI. BTI was favourably impacted by both the NEFT (4.734070) and DEBIT (0.207423) coefficient values. Negatively impacting BTI were the coefficient values of ATM (-6.804026) and CREDIT (-8.508527). Thus, the alternative hypothesis is accepted and the null hypothesis is rejected. According to the findings, Selected National Bank 3G and 4G banking technology-enabled services significantly impacted the Banking Technology Index.

Findings of the Study

The study observed the following findings based on the statistical results.

1. The study examines the relationship of Fintech services with the BTI during the 3G and 4G periods with the ordinary least square method. The study result reveals that Debit card transactions (0.978) and followed by the ATM (0.868).
2. The study reveals that Fintech services of RTGS (0.597) and Mobile Banking (0.400) are observed to be having the moderately positive relationship with the banking technology index of SNB.
3. The study synchronized that in 3G period ATM (3.292514) having the higher influence on the business performance comparing with other Fintech services.

4. The study found that Debit card services (0.815456) are having the positive impact on the business growth followed by the Credit Card (0.762643) in 4G period.
5. The study found that SNB Fintech service of NEFT (4.73407) having the higher positive impact on the business growth followed by the Debit Card transactions (0.207423). It states that Neft and Debit Card Transactions having the significant positive role for the business growth of Selected National Bank.
6. The study found that Credit card Transactions (-8.50852) having the negative significant impact on the business growth, which states that business growth of the bank slightly drifted downwards comparing with the other Fintech services.

Conclusion of the Study

The present study examines the role of Fintech services in Business growth of Selected National Bank. The study considered the 3G and 4G periods i.e., 2008-09 to 2021-22 years. The study considered the six business to customers segment related Fintech services. The study adopted the quantitative research approach for the examination of framed objectives. The study designed the BTI with the six Fintech services and considered proxy for the business of the bank. The study applied the bivariate correlation and measured the relationship of selected Fintech services with the BTI and observed that most of the services are having the significant positive relationship during the 3G & 4G periods. The applied the OLS to know the impact of Fintech services on the BTI and observed that in 3G period ATM influence has been observed higher and 4G period credit card playing the vital role for the SNB business growth. The study examined the combined the period and observed that all the Fintech services are having the positive impact on the growth of business of SNB. Thus, the study also suggests focus on the service quality of the Fintech services offered by the Selected National Bank, so that bank can improve the customers satisfaction that ultimately have the positive ripple effect on the business growth. The study has the limitation that only one nationalized bank selected there is a further scope to do the research on 5G technology usage on Fintech services considering more nationalized and private sector banks to know the quality of services using latest technology.

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