

A Comparative Analysis of Banking and Non-Banking Digital Financial Services

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Abstract

There is a growing competition between banks and fintech startups, not only in advanced economies but also in the developing markets. The financial service industry has evolved in the recent time through the innovative technologies and is very effectively furnishing the needs of the customers. Both the institutions are coming up with new services to enhance the overarching customer experience. This paper aims to compare the online financial services provided by FinTech firms and banks through a consumer's perspective. The paper also compares the service quality factors of digital services provided by both these institutions. It evaluates how satisfied are the consumers with these fintech services and documents the results of the survey aiming to clarify how well-informed and satisfied consumers in Jaipur are about digital financial services, their convenience, speed and safety, as well as the consumers' current satisfaction with online financial services. It is a descriptive study based on primary data which brings out the trends and challenges of digital financial solutions provided by banks and non-bank fintech companies according to a customer's perception.

Keywords: Digital financial services, Fintech, Online banking, Emerging technologies, Customer perception, Financial technology solutions

Introduction

In general, the term "financial technology" applies to any innovation in financial or business operations and to the establishment of digital currencies in double-digit bookkeeping. Since the evolution of the Internet and smartphone, however, the financial technology sector has seen tremendous growth, and fintech, which used to refer to computer technology used in the back office of banks or trading firms, now represents a wide range of technological interventions for personal and commercial finance. Over the years, various financial service providers such as commercial banks, insurance companies, investment banks and other financial institutions have taken advantage of technology but to increase their reach, customer satisfaction and efficiency as well as emerging market efficiency and technological development. However, the level of technology adoption is not equal to actual ability and thus there have been gaps in the financial services industry. According to ASSOCHAM (2019), from January 2013 to October 2018, the FinTech companies established in 1994, became a hotbed of business activity. In addition, KPMG claims global investment in FinTech companies reached US \$ 111.8 billion in all 2196 contracts in 2018, while a PwC survey found that 47% of TMT organizations (technology, media and communications) and 48% of FS

organizations (finance category) have moved extensively into fintech into a model of their strategic operations. Also, 44% of TMT and 37% of FS organizations incorporate emerging technologies into the products and services they sell.

Traditional Banks and Financial Institutions have always focused on technology as a basis for business proposals, rather than for new business proposals themselves. On the other hand, non-Banking financial institutions, commonly known as fintech firms (due to their recognition of financial technology) such as PayTm, Ling Cart, Amazon Pay etc. They also play that role by introducing digital technologies to create new business proposals and attack new market segments that were previously impossible.

Digital Financial Solution and Services

1. Online Payments -Mobile payment or M-walletis a payment system where the payment is done through a portable electronic device such as a phone or a tablet.
2. Money Transfers -Money transfer services enable a person to transfer funds for various uses. It includes P2P money transfer, P2M money transfer, G2P etc. These services aim to satisfy the needs of both the merchants and the customers through the payment infrastructure for mobile technologies.
3. Smartphone Banking (Account opening and other account Information) -It refers to banking services like opening a bank account, reviewing bank statements and investments with the help of digital devices like smart phones and tablets.
4. Investment Management - Robo-advisors, discount brokers and online financial advisor are some of the investment management fragments which are the part of financial technology. Wealth and investment advisors are some of the services provided to the customers as part of their portfolio management strategies.
5. Assistance for budgeting through applications- The help the customers in managing their finances and consumptions expenditure. The help them plan their monthly transactions wisely within their available income.
6. Online Lending and Services- The banking technology has made it easier for the customers to borrow money.
7. Crowd funding- It is an emerging area of fulfilling the capital needs of the small industries and start ups. With the use of technologies various investors and the entrepreneurs come together through social media or crowd funding websites.
8. Assistance for Business purposes -Online payments and money transfer services have made the transfer of payments very smooth and easier. Some fintech apps also provide businessmen with a separate app to keep a track of all the payments received.

9. Insurance–Insurance is growing fast with the integration of technology in the process. Insurtech is an emerging field through which house insurance, motor-vehicle insurance etc. are provided.
10. Crypto currency and Blockchain Technology– The digital currency including the crypto currency and the blockchain technology has grown very fast in the recent years. However the the legal tender these currencies remains an issue.

The magnitude of change that has been brought by the digital revolution has been astonishing in the last two-three decades. The innovations in technology and ever increasing use of internet and social media have significantly changed the way of how everything works. This digital revolution has also led to the coming together of finance and technology which is usually known as fintech.

Review of Literature

A. Jiwasiddi, C.T. Adhikara, M. R. R. Adam, I. Triana (2019) confirmed that service quality and brand, is one of the most important factors that influence the millennials toward using FinTech. The study also shows that “perceived ease of use” is one of the most important determinants that drive people to use Fintech.

Tabitha Durai and Stella G. (2019) concluded that the mobile wallet convenience, accuracy, low service charges, ease in interbank account facilities have an impact on the use of mobile banking services.

MEDICI report (2019) sheds light on the progress that has been made so far in the digital financial sector. The report gives a detailed analysis which is helpful in understanding the status of the fintech in the current time. The study shows the impact of the financial technology innovations on the economy and also presents the suggestions to improve its impact through collaborations.

Leong, K. and Sung (2018) examined various FinTech applications namely, payment and transactions, consultative service, financing and conformity. The researchers analyse the role of emerging technologies in creating value to the customers and businesses.

Svetlana Saksonova and Irina Kuzmina-Merlino (2017) through their study highlights that the individuals do not have required knowledge about the innovations in financial products and services. The study concludes that the integration of the traditional banking and financial services with the emerging technologies can uplift the banking sector and provide necessary services to the customers as per the demand of the consumer market.

Gulamhuseinwala, T. Bull, and S. Lewis, J. (2015) analysed the status of the fintech adoption among the smartphone users. The study reveals that the 40 percent of the digitally active high income users have well adopted financial technology. In order to deal with competition from the financial technology firms banks should re-evaluate their digital solutions and come up with innovative, customer friendly methods

Carmen Cuesta, Macarena Ruesta, David Tuesta and Pablo Urbiola(2015)in a study explains how banks can compete with new fintech entrants. The paper describes various ways and measures that can be taken by banks to become more FinTech efficient as well as the future trends and challenges that will be faced by them while adopting these changes. The study concludes that in order to reduce the costs and increase the income the banks have to make a wise choice of using digital technology.

Objectives

- To compare the service quality factors of digital services provided by FinTech firms and banks.
- To identify the factors that would encourage the use of digital financial services among customers in future.
- To discover the challenges of digital financial solutions provided by banks and non -bank fintech companies according to a customer’s perception

Hypothesis

Ho: There is no significant difference in the customers’ preference for digital services provided by commercial banks and Fintech firms.

Research Design

The present study is descriptive in nature and is conducted to compare the digital financial services provide by bank and non-bank institutions, usually known as FinTech firms, through the perspective of a consumer.



Figure 1: Research Model

Scope of the Study

The study is specifically focused on the comparison of digital financial services and their quality provided by commercial banks and non-bank fintech firms, according to the consumer’s perception. This study, therefore, explores the various factors and determinants on which the choice of the consumer depends while using financial services.

Relevance of the Study

Institutions which constantly develop and upgrade themselves with new fintech innovations extract many benefits such as reduced operating costs, improved performance, satisfied and happy customers. These innovations in services also provide competitive benefits. Thus it is necessary to find out the various factors

and quality measures which effect the consumers' choice and preference while opting for these services. This research identifies the key areas where they can improve and effectively compete with FinTech institutions which specialize in digital financial innovations. It will help the fintech firms to recognize the areas where they can perform better and enhance the customers' experience and satisfaction to the next level. It will also help them to improve their enterprise efficiency and attractiveness.

Sample Design and Sampling Technique

The universe of the research is the existing and potential users of the digital financial services. The sample was collected from 84 users from of banking and fintech digital financial services from Jaipur City. Present study was conducted using survey method. Convenient sampling was used for conducting this research.

Data Collection

In this study primary data was collected through a structured questionnaire. A set of questions were framed for the existing as well as potential consumers of digital financial services. The statements of the questionnaire for each variable used likert scale. The research also referred various articles, annual reports of Fintech Companies and digital financial service providers.

Reliability Analysis

Cronbachalpha reliability of the overall questionnaire is .981 whereas the factor wise reliability is service performance .952, website features (.974), efficiency and communication (.886). Table 1 shows the factor Analysis used for finding out the dimensions of the study, is as follows:

Table 1: Factor Analysis

SERVICE PERFORMANCE	WEBSITE FEATURES	COMMUNICATION & EFFICIENCY
(Accessibility, Availability, Performance, Safety, Service Security) Statement Q1-Q7	(Ease of use, Design, Content) Statement Q9-Q13	(Performance speed and Customer Support) Statement Q8, Q14-17

Table 2: KMO and Bartlett's Test^{a,b}

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.945
Bartlett's Test of Sphericity	Approx. Chi-Square	2446.165
	Df	136
	Sig.	.000

Table 2 shows that the KMO value is .945 which indicates sampling adequacy; the p value is .000 which is less than .05 indicating that factor analysis may be used. The **Kaiser-Meyer-Olkin Measure of Sampling Adequacy** is a statistic that indicates the proportion of variance in variables that might be caused by

underlying factors. **Bartlett's test of sphericity** tests the hypothesis that correlation matrix is an identity matrix, which would indicate that variables are unrelated and therefore unsuitable for structure detection.

Tools and Techniques

The data has been analyzed using inferential statistics. Factor analysis has been applied to determine the variables of the study. In order to test the hypothesis independent sample t- test has been used.

Data Analysis and Interpretation

In this study, 33.3% of responders were Male and 66.7% responders were female from total respondents of 84. Among these respondents the minimum age was 18 and the maximum age was 50. From the total responders, 85.7% of people use digital financial services and the rest 14.3% of respondents do not use digital financial services. Also, 33.3% respondents use only bank's website/apps to perform digital financial transactions and 10.7% respondents consider using Fintech Apps alone to perform any digital transaction. While, 44% prefer using both i.e. Bank apps as well as Fintech Apps. Table 3 shows the overall mean values on the customer perception for the group's i.e., financial technology providing financial institutions (3.0315) and banks (3.3966). The standard deviation for financial technology providing financial institutions and banks is 1.41493 and 1.38955 respectively. Table 4 shows the responses of customers regarding the digital financial services provided by banks and FinTech firms.

Table 3: Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Service Quality	FinTech	84	3.0315	1.41493	.15438
	Banks	84	3.3966	1.38955	.15161

Table 4: Comparison on the Basis of the Services Used

Name of the Service	FinTech Apps	Banks Apps/ Websites
Payments	45.2%	22.6%
Consulting for Account Statements or Balance	22.6%	53.6%
Opening a bank account	1.2%	17.9%
Money Transfers	22.6%	45.2%
Applying for Investments	4.8%	23.8%
Applying for Insurance	1.2%	17.8%
Applying for loans	1.2%	7.2%
Contacting for advice	1.2%	16.7%

The above table 4 shows the comparison on the basis of the services used by the customer from Fintech firms and the banking apps. It is clear that the customer uses fintech firms application mostly for payments, consulting for account statements and for money transfer whereas they use banking applications for checking balance and account statements money transfer and for applying for investments.

Table 5: Independent Sample Test

Service Quality	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.599	.440	-1.687	166	.093	-.36506	.21638	-.79228	.06215
Equal variances not assumed			-1.687	165.946	.093	-.36506	.21638	-.79228	.06215

Table 5 shows the results of independent sample t- test. The results of the Levene's test with p- value are .440 signifies that there is an equality of variance in two groups. The t- test (2-tailed) p- value is .093 which is greater than the significant value .05. Hence, null hypothesis is accepted. This denotes that there is no significant difference in the perception of the customers towards the service quality of fintech firms like paytm, paypal, phonepayetc and banking digital solutions and technology.

Table 6: Independent Samples Test on the Basis of Factors

Factors		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Service Performance	Equal variances assumed	.064	.801	-2.040	166	.043	-.45578	.22344	-.89694	-.01463
	Equal variances not assumed			-2.040	165.98	.043	-.45578	.22344	-.89694	-.01462
Ho: There is no significant difference in the customers' preference for digital services provided by commercial banks and Fintech firms on the basis of service performance.										
Website Features	Equal variances assumed	1.027	.312	.010	166	.992	.00238	.23702	-.46558	.47034
	Equal variances not assumed			.010	164.875	.992	.00238	.23702	-.46560	.47037
Ho: There is no significant difference in the customers' preference for digital services provided by commercial banks and Fintech firms on the basis of Website features.										
Communication and Efficiency	Equal variances assumed	.017	.896	-2.938	166	.004	-.60417	.20567	-1.01024	-.19810
	Equal variances not assumed			-2.938	164.479	.004	-.60417	.20567	-1.01026	-.19807
Ho: There is no significant difference in the customers' preference for digital services provided by commercial banks and Fintech firms on the basis of efficiency and Communication.										

The above table i.e. Table 6 shows the factor-wise results of independent sample t- test. On the basis of service performance the t- test (2-tailed) p- value is .043 which is less than the significant value .05. Hence, null hypothesis is rejected. This denotes that there is a significant difference in the perception of the customers on the basis of service performance of fintech firms like paytm, paypal, phonepe etc. and banking digital solutions and technology.

On the basis of website features the t- test (2-tailed) p- value is .992 which is greater than the significant value .05. Hence, null hypothesis is accepted. This denotes that there is no significant difference in the perception of the customers on the basis of website features of fintech firms like paytm, paypal, phonepe etc. and banking digital solutions and technology.

Lastly, on the basis of efficiency and communication the t- test (2-tailed) p- value is .004 which is less than the significant value .05. Hence, null hypothesis is rejected. This denotes that there is a significant difference in the perception of the customers on the basis of efficiency and communication of fintech firms like paytm, paypal, phonepe etc. and banking digital solutions and technology

Table 7: Mean and Standard Deviation of the Factors

Factors	Mean Scores		Standard Deviation	
	Fintech	Banks	Fintech	Banks
Service Performance	3.202	3.658	1.440	1.456
Website Features	3.228	3.226	1.598	1.471
Efficiency & Communication	2.595	3.199	1.267	1.395

Table 7 shows the mean scores of the independent sample t- test. There is a difference in the mean scores of efficiency & communication for fintech and banks. It suggests that the customer perception about the communication and efficiency of the fintech firms like patym and paypal is less satisfactory in comparison to banking apps.

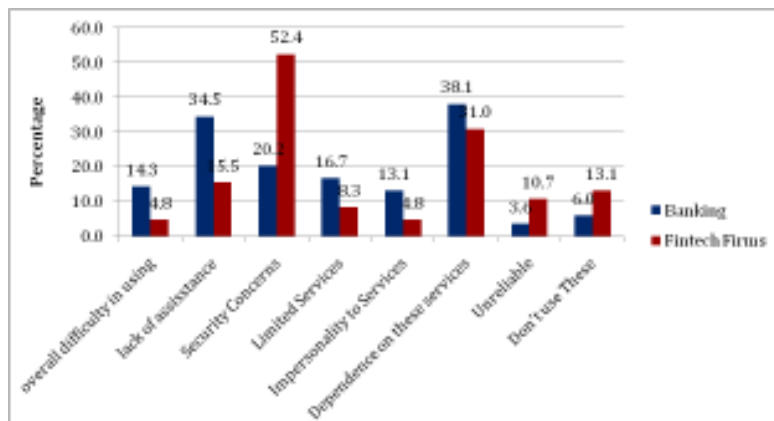


Figure 2: Comparison of the challenges faced by banks and fintech firms while providing digital financial services to their customers.

Various problems are faced by respondents while availing digital financial services through bank or fintech apps. This customer inconvenience becomes a challenge for banks and non-bank fintech startups as depicted in chart 2. For example, not having a user friendly interface which in turn makes it difficult for the customer to use or understand the app properly is one of the major challenges. The above graph shows that 34.5% respondents feel that there is lack of assistance in bank apps while 15.5% of respondents feel there is lack of assistance in fintech apps. Around 52% respondents feel that the major challenge faced by them while using fintech apps is lack of security and only 20% of respondents think bank apps are not safe. 38% and 31% respondents feel that the dependence of bank apps and fintech apps respectively on internet is another major challenge. This shows that among all the challenges, lack of security and dependence on internet are two major disadvantages of FinTech apps according to the customers. While, for bank apps the two major challenges are lack of assistance and dependence on the internet.

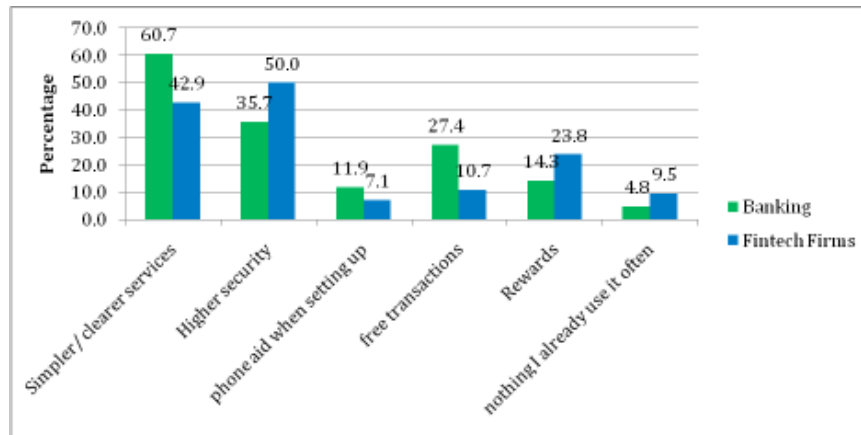


Figure 3: Comparison of the factors that would encourage the use of digital financial services among customers in future

Chart 2 shows the various features and modifications that customers expect from banks and fintech startups. These are some of the features which might encourage the customers to use digital financial services. 60.7% respondents expect simpler/clearer services while performing transactions with bank apps while, 42.9% expect the same from fintech startups. 50% respondents expect higher security from Fintech startups while 35% expect the same from bank apps as well.

Conclusion

On the basis of the results obtained from the data analysis and the observations made during the study we can conclude that people use fintech services mostly for transactions which require petty payments or services which are relatively easy to use. These services include mobile payments, peer to peer transfers,

booking tickets etc. This means that services which include higher degree of human contact are still obtained through traditional means like visiting the branch itself. Secondly, while choosing a source/provider for availing any digital financial services a customer usually takes the service performance and communication and efficiency into consideration. Thirdly, people trust their bank to look after their data, even if they don't trust the sector as a whole. This shows that despite the modern technology and latest approach, these new fintech entrants lack an important intangible asset that these established commercial banks have: trust. Moreover, the consumers do not find Fintech apps to be safe enough for use. The bank apps also have some disadvantages as per the consumer opinion including lack of assistance and their dependence on the internet. Also, the customer expects simpler/clearer services and higher security. Higher security is expected more from FinTech apps while simpler/clearer services are expected from bank apps.

Suggestions

As the innovations in technology are improving day by day, a customer is not only offered with a large variety of online financial products but also with a better customer experience through improved service quality. With regard to banks, there should be a shift to digital quality from digital quantity, as it applies to improving the aesthetics and simplicity of existing digital offerings. As mobile access exceeds visits to the branch, delivering a personalized digital product or service, and making it possible for prospects and customers to purchase on a digital channel should be a priority. Both banks and fintech startups need to improve functionality without complicating the user ease and experience proper training should be given by both the institutions to customers for using digital financial services. Customers should be made aware about the functions and benefits of digital financial services. Fintech firms should focus on creating a better sense of trust in mind of their customers towards security of their accounts and transactions.

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