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An empirical study on evaluation of fintech industry in Bengaluru

Dr. Haritha. M
Assistant Professor &Program Manager, Department of PG- Commerce & Finance, Acharya institute of management and science

Dr. Ramamurthy B.M
Assistant Professor & Program Director, Department of Management, Acharya institute of management and science

Dr. Ravi. V
Assistant Professor &Program Manager, Department of B.com, Acharya institute of management and science

***Abstract*---**Digitalization has brought challenges in all the industries and business sectors (Ryan Randy Suryono et al. 2020). The research in this area reveals clearly that the development of digital transformation has given the way for emergence of fintech initiatives. India is one of the fastest growing fintech markets in the world. India has Asia's highest fintech investment institutions with a deal value around $647.50 million across 33 deals as compared to China's $284.9 million during the quarter end of June 30, 2020 (RSBA Advisors 2021). As per the MEDICI India FinTech Report 2020 India has witnessed exclusive growth in the number of new ventures launched in the FinTech space. Cumulative investments in India crossed $10 billion by the end of June 2020. The number of fintech startups in India is now almost 2280 with Bengaluru and Mumbai contributing to 42% of the companies (India Ego Medic.com). The first wave of disruptions in, financial services was led by digital payments followed by digital lending, wealth management and insurrect startups. This trend led to the emergence of fintech 2.0 where there are new use cases emerging with completely new models. These trends gave the way for emergence of new segments and also new innovations in the existing platforms in the fintech world. Fintech offers several services like funding, payment e-aggregations, e-trading, and e-insurance, and crypto currencies such as Bitcoin. The rise of digital commerce, innovation in payments, technology based AI, black chain, the internet of things and real time payments and the introduction of mobile point of sales devices have led to a reduction in the cost of acceptance and also contributed to the growth. Fintech has been

growing rapidly in India in the last 5 years and is expected to grow further in the nearest future (Krishna et al. 2019). Fin tech companies create more competitive advantage in the financial market by providing faster service in the area of payment, financial consultancy, lending and investment. Against this background an attempt is made to study the evaluation of the Fintech Services Industry in terms of benefits, motivators, challenges and problems faced. The study reveals the presence of a favorable demographic profile of respondents impacting fintech. The challenges faced by fintech services include, lack of support from the government, customer protection and difficulty to change the mindset of merchants. The motivators as per the study includes ease of setting up of an account, effective service quality, 24/7 access to service, availability of innovative products, good online experience and functionality. The study also reveals about the benefits derived from the fintech which includes higher personalization, increased speed and improved products to the customer, efficiency enhancement etc.,

***Keywords*---**Financial, digitalization, mindset, merchants, investors, technology, security, traditional, online, bitcoin conversion, protection.

Introduction

There is no universally accepted definition of the term “FinTech” which is flyspeck of the both combined words “finance” and “technology” (Paschmann, 2017, Zovolokina et al., 2016). It is the exchange of paper based processes (Aswini Sanmath, 2018). It refers to firm merging the upcoming technological trends to provide better financial solutions to the customers in the form of digital payments and transactions (Aakriti Sai, 2020). As per CB Insights latest reports, there are 20 Indian fintech startups that have been listed among top 250 global promoting startup companies. (Wilson, R. 2020).

The traditional banks have discharged a significant role in the financial world (Salman, 2014). However, with the advent and growth of technology, the world economy has been gradually switching to the digital channels (The Economic, 2015). The existence and continuous department of fintech has caused huge pressure and challenge for the traditional banks (Desai, 2015). The growth in the technology adaption will make traditional institutions collaborate with fintech institutions or they can act as fintech solution providers in order to sustain and stay active in the business.

The development in the technology adoption has the potential to make markets more diverse, competitive, efficient, and inclusive but could also enhance concentration. Innovation has inducted competition and enhanced inclusion in emerging markets and developing economies (First et al. 2021). Fintech thrived in markets where the financial system had been less developed (Didier et al., 2021). COVID-19 pandemic resulting in lockdown and social distance accelerated the digital transformation. Contactless business was done through a digital system.

Business houses, individuals and financial service providers have used the digital services in their business during the pandemic crisis period and it will continue in future also. It has intensified e-commerce (Alfonso et al. 2021) which benefits the big tech firms and their activities. Countries with strict COVID-19 policies than lower mobility nations experienced a large increase in financial app downloads on account of the outbreak (Didier et al. 2021).

Need for studying fintech services

Fintech services reduce risk and cost of transactions (Balterparger, 1980). There exists asymmetric information regarding market interactions consequently there arises no trust between parties and fintech services solve the risks and create trust between institutions and consumers. Banks diversify across an innumerable number of borrowers and manage uncertainty in a better manner. Providing any kind of services to the needy requires not only information and financial resources but also real resources. These consist of labor, equipment and premises to produce financial contracts, financial capital and trust which differs from one to another business type.

Traditional financial firms need a larger size of fixed cost investment for creation and maintenance of back office systems and physical distribution networks. But fin tech service providers enjoy economics of scope through building interdependent financial services. Technology advancement has emerged in two significant areas that have contributed to the current wave of technology based finance: The two key areas are (1) increased connectivity and (2) low cost. The first one is related to the capacity of internet and mobile technology which are rapidly increasing the transfer of information and internet contactless both between business and directly to the consumer. The second point is about low cost. The cost of data storage has been substantially declined. The ability to process the data with speed has also been enhanced with innovations in artificial intelligence (AI) and machine learning.

Big data emerges from a variety of sources and used in a wide range of traditional financial services and new types of business houses to improve credit analysis, process efficiency risk management, customer service, product design etc., The development in the technology led to emergence of platform based business models. Fintech, big techs are discharging their best services as “matchmakers” between different users and platform providers (Corson et al. 2021).

Review of literature

Ashwini Sanmath (2018) stated that world is embracing fintech service. The advantage of fintech service includes from adaption of technological services by the banks and their financial services. The fintech services offer better financial services to the customers at cheaper costs.

Anjan V. Thakor (2019) in his research study revealed that fintech platforms have recently not delivered the returns to investors. Further he has remarked about the presence of variations in ROE which may be considered by the platforms and may opt leverage in the future. Further, the researcher suggested that whatever

theories are built around banks and P2P platforms, they should consider the potential developments to highlight the costs and benefits of leverage.

Chen et al. (2019) expressed that fintech is part of the process of evolving financial innovation, which has theoretically been shown to be risky but of value with supporting recent evidence that offers substantial returns to the investors. D'Acunto et al. (2019) expressed that adopters of robo-advising are similar demographically to non-adopters, but are more active and have greater assets under management. Further, the research has stated that the investors adopting robo-advising experience diversification benefits, getting better returns with lower volatility.

Krishna Priya, P. et al. (2019) in their research work they have revealed that there are around 1500 Fintech startup firms operating in India and out of these nearly half were started in the past two years. Further, the researchers stated that a majority of successful fin tech firms belongs to payments and the researchers wished that this trend should spread to other financial segments.

Kavuri et al. (2018) stated that new financial technologies (Fintech) have emerged around the globe. As a result of this it is found that there has been a considerable increase in academic literature over the last 5 years. The researcher further stated that much work has to be done before this area becomes an established academic discipline.

Andre L., (2019) expressed that Fintech has indeed taken an important space in today's digital world. As per the researchers with an expanding family of robust technological tools for personal and commercial finance, it is poised to further grow in use and impact.

Vijay, C. et al. (2020) reported that fintech is important for the future of the financial sector as inclusive finance strongly impacts economic growth. Fintech has taken the next level of financial services like shopping, transfer, receiving funds, saving time and user friendly. Further, they expressed that fintech benefits both consumers and business.

The study by Parameshwar, H.S. et al. (2019) reveals that fin tech has become an inexplicable way to follow in all financial institutions and its impact is having a paramount goal for the success of all financial constitutions.

Objectives of the study

- To study the demographic profile of respondents.
- To Analyse the challenges faced by Fintech
- To analyse the motivators for adopting fintech.
- To analyse the benefits of fintech.
- To analyse the trends in fintech.

Hypotheses

- Demographic profile of the respondents is not contributing towards fintech.
- There are no challenges faced by fintech.
- There exist no motivators for adopting fintech.

- There are no benefits of fintech.
- There exist no trends in fintech.

Research questions

- What are the reasons behind the characteristics of respondents not supporting the study?
- What are the challenges faced by fintech services?
- What are the motivators for adopting fintech?
- What are the benefits of fintech?
- What are the trends in fintech?

Research Methodology

Research design: Research design is studied through (1) research paradigm, (2) research approach and (3) choosing a methodology. Research paradigm speaks about comprehending knowledge and its acquiring. Research approach tells about quantitative or qualitative approach is followed in surveys or other measurements that generate data in the form of numerals while qualitative approach pertain to interviews or participant observation.

Research Methodology: The present study uses survey methods for the purpose of data collection. Under this method required data is collected from the sample in the universe in order to examine the socio-economic characteristics of respondents, challenges faced by fintech services, motivators for adopting fintech, benefits derived and trends in fintech. Under the present research work data collected within the natural context where the work goes on normally. Survey technique aims at determination of the position of a given phenomenon. Under the present survey technique the researcher acquires an opportunity to answer all questions raised by the respondents and also test the hypotheses.

Study population: It is impossible to meet all who are really interested in Fintech services. 200 samples were conveniently selected to participate in the study based on convenient sampling technique. Further, some problems faced at the time of data collection in Bengaluru due to financial, time constraints in addition to COVID-19 norms.

Sample selection: Convenient sampling technique is followed in the present study. The sample to be covered is fixed at 200 due to time, financial and COVID-19's restricted movement.

Sl.No.	Type of respondents	Number	%
1	Government service	50	25
2	Private service	80	40
3	Business	20	10
4	Self employed	25	7.5
5	Startup Entrepreneurs	10	5
6	Housewives	25	12.5
	Total	200	100

Data Source: The present study depends on both primary and secondary data. Primary data collected through administering questionnaires as scheduled in order to avoid non response, delay and to follow the norms of COVID-19. Secondary sources include journals and Web resources.

Period of data collection and study area: The period of data collection was June 20th to August 10th, 2021. The study is confined only to Bengaluru urban areas and the sample for the study is fixed at 200.

Questionnaire Design: The present study gathers information through a structured questionnaire. Applying a questionnaire as a measure is at the heart of a survey procedure. The questionnaire is regarded as a basic technique of data collection and tends to be the most popular method (Easterby - Smith et al., 1991). Further, they have stated that questionnaire is regarded as a basic technique of data collection and tends to be the most popular method. Uma Sekaran (2016) expressed that questionnaire method is a pre-planned and formulated written set of questions which responds record their answers.

Method of data analysis: The study adopted chi-square, Garrette ranking, ANOVA and Kendall's measure of concordance. These techniques were applied with an objective and as they are easy to understand and considered sufficient for the analysis.

Data Presentation and Analysis: Section A - Demographic variables of respondents

The demographic variables which are required to the present work includes gender, marital status, age, education, occupation and monthly income. An impact of all the characteristics on fintech is studied.
Research question No. 1: What are the reasons behind the characteristics of respondents not supporting the study?
Hypotheses 1 : H0 : There exist no significant variation in the socio economic characteristics of respondents and they do not support the study.
H1 : There exists significant variation in the socio-economic characteristics and they support the study.

Table - 1 reveals data about the socio-economic characteristics of respondents. The demographic variable impactness is to decide how a proposed development research work will affect the lives of the present or potential population of an area under study. The impactness provides valuable information about the respondents and is essential for the determination whether individuals form a representative sample of the target population for generalization purposes. (Neil, J. Salkind, 2010). The study covered 170 (85% males and the rest 30 (15%) females. There are 180 respondents who are married (92.5%) and the balance 20 persons remain single. 60 respondents belong to the age group of 35-45 years followed by 50 belong 45-55 years, 30 each pertain to the age group of 25-35 years, and 55-65 years, 10 belong to 65 years and more and 20 belong 15-25 years). 80 respondents (40%) studied up to bachelor degree followed by 30 each completed PUC, and professionals,20 completed 10th standard and 15 respondents education status was another group which includes ITI and any

certificate course. 80 respondents are working in the private sector, 50 in government service, 25 housewives, 20 doing business, 15 self employed, 10 startup entrepreneurs. The monthly income data reveals that 55 respondents (27.5%) belongs to the income group of 40K-50K followed by 40(20%) belongs to the income group of 50K-60K, 31 belongs to the income group of 30K-40K, 30 pertain to 60K-70K and 12 each belongs to 10K-20K and 70K and more. All the characteristics of respondents clearly show the presence of significant variation in the data and also exhibit a high degree of relationship. The formula performed to decide the relationship is C = √ x2 / x2 + N, where x2 = chi-square and N = Number of respondents. When the value of 'c' is equal or nearer to one, it means a high degree of association between the variables.

Section B - Analysis of research questions and Hypotheses

Section - B of the questionnaire is related to the section of research questions. These questions are framed to provide solutions to the objectives and cover challenges of fintech, motivators for adopting fintech, benefits derived from fintech and trends in fintech services. Five hypotheses were framed and tested using the collected data through questionnaires using Garret ranking technique the following steps were adopted.

- Percent position table is prepared by performing the formula 100(Rij - 0.5)/Nj and these values were referred to the Garrett conversion table to get scale values.
- Score values are obtained by multiplying 'x' and 'f' (being sub values and f sum of opinions).
- The total is divided by the number of observations to get the mean score and ranks are awarded based on the strength of the mean score using Kendall's measure of concordance (w) the following steps were applied.

Using the Kendall measure of concordance (w), the following steps were applied.

- Add the rank for each problem and square the total rank.
- Add such obtained square to get total RT2
- Decide the sum of squares (SSR) using the formula ERT2 = (ERT/N)2
- Put the obtained SSR value in the formula W. Here "w" = 12 x SSR / K2N (N2-1), where N = Number of observation, K = point scale.
- Finally test the significance of 'w' using x2 statistic.

Research questions No. 2: What are the challenges faced by fintech services?
Hypotheses 2: H0: There exist no significant variation in the challenges faced by fintech.
H1: There exists significant variation in the challenges faced by fintech services.
Table - 2 explains the different challenges faced by fintech services. The bipolar expressions given by the respondents has been totalled to formulate frequency which is multiplied by Garrett scale value to obtain total and this total is divided by the number of observations to obtain mean score. Ranks are awarded after considering the strength of mean score. For the Garrett conversion table refer to Table-3. First rank was assigned to the challenge of lack of government support, second rank was awarded to customer protection and third rank was assigned to the challenge of difficult to change the mindset of merchants and investors. Finally the fourteenth rank was assigned to a lesser number of clients.

Research question No. 3: What are the motivators for adopting fintech?
Hypotheses H0: There exist no significant variation in the motivators for adoption by fintech.
H1: There exists significant variation in the motivators for adopting fintech.
Table - 4 reveals data regarding motivators for adopting fintech. These motivators vary from ease of setting up of an account to attractive rates and fees. 126 respondents (63%) out of 200 expressed strongly agree over the motivators impacting adoption followed by 49 agree and 25 somewhat agree. Out of the 126 respondents who said strongly agree, 20 spoke about 24/7 access to service, 19 each stated about effective service quality and good online experience and functionality. Further 19 more indicated about availability of more innovative products when compare to traditional financial institutions, 18 reported about ability to access to variety of products and services, 17 voiced about ease of setting up of an account and 14 said about attractive rates and fees. Out of the 49 who stated agree, 10 stated about 24/7 access to service, 8 each said about ease of setting up of an account and availability of variety of products and services and 5 each spoke about good online experience and attractive fees and rates. Out of 25 who said somewhat agree 5 spoke about ability to access to variety of products and services, 4 each voiced about ease of setting up of an account and availability of more attractive products. Further 4 more opined about attractive rates and free. ANOVA fails to accept H0 and accepts H1 and hence it is concluded here that there exists significant variation in the data.

Research question No. 4: What are the benefits of fintech services?
Hypothesis H0: There exist no significant relationship between benefits and fintech services.
H1: There exist significant relationship between the drivers of benefits and fintech services.

Table - 5 shows data about benefits derived from fintech services. 110 respondents (55%) stated strongly agree over the drivers of benefits followed by 60 (30%) agree and 30(15%) stated somewhat agree. The benefits derived from fintech vary from higher personalization to economies in scale in collection and manipulating large branch data. Out of 110 respondents who said strongly agree, 20 said about higher personalization, 16 voiced about regulatory environment. 14 identified about increased speed of service, 12 each reported about lower cost of research and economies in scale in collection and manipulating large branch data. Out of 60 who expressed agree 10 identified higher personalization, 11 said about efficiency enhancement, 8 spoke about regulatory environment (RBI), 7 voiced about increased speed of service. Finally out of 30 who said somewhat agree, 6 spoke about higher personalization, 4 each stated about efficiency enhancement, and regulatory environment (RBI). Further 4 more identified about cheaper and more secure transaction. ‘w’ fails to accept H0 and accepts H1 and hence it is concluded that there exist significant relationship between drivers of benefits and fintech services.

Research question No. 5: What are the trends in fintech?
Hypothesis H0: There exist no significant relationship between trends and fintech services.
H1: There exists a significant relationship between different trends and fintech services.

Table - 6 highlights data about different trends that have emerged and followed by fintech services. These trends vary from Chabot's for customer service to Aadhaar adoption. 115 respondents (57.5%) out of 200 expressed strongly agree over the different emerging trends followed by 60 agree and 25 somewhat agree. Out of 115 respondents who said strongly agree a majority of 26 said about machine learning and artificial intelligence, 22 stated about biometric for stronger security, 9 identified about world class technical framework and 8 each spoke about Omni-channel banking and obsolescence of bank branches and start up India program, 7 each indicated about Black Chain for future security and Jan Dan Yojana. Further, 7 more indicated public relations. Out of 60 who said they agreed, 12 expressed about machine learning and artificial intelligence, 7 identified world class technical framework, 6 voiced about Omni-channel banking and obsolescence of bank branches, 5 each spoke about Chabot's for customer service and Block chain for digital transactions. Out of 25 who said somewhat agree 3 each expressed about Chatbots for customer service, and machine learning and artificial intelligence for fraud detection. Furthermore 3 respondents spoke about Jan Dhan Yojana. 'W' fails to accept H0 and accepts H1 and hence it is concluded here that there exist significant relations between the emerging trends and fintech services.

Summary and discussion of findings

The main objective behind the present study is to probe the challenges faced by the fintech industry in Bengaluru, benefits, motivators, and trends. The expert's contribution in this area is also taken into consideration in order to put the study within certain appropriate perspectives.

The present study is based on both primary and secondary data. The primary data was collected by administering a well drafted structured questionnaire which was used as scheduled due to avoid non-response, delay, and respecting COVID-19 norms. Secondary sources include journals, internet, and books. The target population covered employees working in government and private sector, business people, self employed, startup entrepreneurs and housewives. The findings of the study were presented and analyzed and discussed using chi-square, Garrette ranking technique, ANOVA, and Kendall's coefficient of concordance quantitative techniques. From the study it was found that the fintech industry is facing many problems and challenges. It is benefitting the merchants and investors and the motivators are highly encouraging the fintech services which are growing fastly at Bengaluru. Bengaluru is a growing city in Asia and it is aptly nicknamed as 'Silicon valley' and 'science city'. Innumerable global level educational institutions are providing better education to the Indian and overseas students. Further, the study also reveals information about trends and fintech services, and these trends include chabot's for customer service,

machine learning, AI for fraud detection, biometric for stronger security, world class technical framework, National Payment Council of India Initiatives etc.,

Conclusion

Fintech innovation has been globally embarrassed. Through innovative fintech services banks and financial institutions can deliver better service at lower costs. There are about 2200 fintech startups in India and of these nearly 50% have started in the past two years. Improvements in connectivity and computing can help to enhance efficiency and competition. Regulatory and supervision policy tools have to be awarded depending on the need and necessity. Fintech in India especially in Bengaluru is advantageous since there exists a better youth demographic growing. The financial services market in India is primarily untapped and 40% of the population at present do not have any association with any bank and more than 80% of the transactions are carried out through cash. The present study reveals the supporting demographic characteristics which are significant and such a high degree of relationship between the variables. Innumerable challenges are faced by fin-tech service providers. The first challenge faced at Bengaluru is about lack of government support, second ranked challenge is customer protection and the third ranked challenge is difficult to change the mindset of merchants and investors. Ease of setting up of an account, effective service quality, 24/7 access to service and availability of innovative products are some of the motivators for adopting fintech. Innumerable benefits are derived from fintech. The study reveals that benefits derived include higher personalization, regulatory environment, efficiency enhancement and increased speed of service and improved products to the customer. The study also reveals about the trends in fintech. These include machine learning and AI, biometric for stronger security, world class technical framework and Omni-channel banking and obsolescence of bank branches.

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Table - 1 : Socio-economic characteristics of respondents.

Characteristics	x2	TV@0.05	df	result of x2	"c"	Result of 'C'
Gender	98	3.841	1	Significant	0.57	High Degree
Marital Status	128	3.841	1	Significant	0.8	High Degree
Age (in years)	52	11.07	5	Significant	0.45	High Degree
Education	73.51	11.07	5	Significant	0.51	High Degree
Occupation	107.51	11.07	5	Significant	0.59	High Degree
Monthly income	51.08	12.592	6	Significant	0.45	High Degree

Source : Authors compilation
Note : x2 = chi-square
'c' = √ (x2 / x2 + N)
Where 'c' = contingency coefficient
N = Number of observations
When the value 'c' is equal or near 1, it means there is high degree of association between attributes. Contingency coefficient will always be less than 1.

Table - 2 : Challenges faced by fintech services - Garrett Ranking technique

Ranks		Scale & Score value of ranks																
	Factors	Scale	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	Total	Mean Rank
		value(x)	84	74	68	63	59	55	52	48	45	41	37	32	25	15	698	
I	Restrictive	f	45	38	25	12	18	10	11	14	6	7	2	3	5	4	200	
		fx	3780	2812	1700	756	1062	550	572	672	270	287	74	96	125	60	12816	64.08
II	Regulatory Framework	f	55	45	32	20	9	5	7	6	5	3	4	2	3	4	200	
		fx	4620	3330	2576	1260	531	275	364	288	225	123	148	64	75	60	13939	67.69
III	Poor Internet Connectivity	f	60	48	25	15	10	8	6	7	4	3	4	5	2	3	200	
		fx	5040	3552	1700	945	590	440	312	336	180	123	148	160	50	45	13621	68.1
IV	Difficult to change the merchants mindset	f	55	45	35	10	12	7	6	8	4	5	3	4	4	2	200	
		fx	4620	3330	2380	630	708	385	312	384	180	205	111	128	100	30	13503	67.51
v	Frauds are lending to loss of Money	f	45	23	18	19	16	17	19	8	7	6	7	4	5	6	200	
		fx	3780	3774	1224	1197	944	935	988	384	315	246	259	128	125	90	14389	71.94
VI	Lack of Support from Government	f	58	51	23	10	12	10	8	7	5	4	3	4	2	3	200	
		fx	4872	3774	1564	630	708	550	416	336	225	164	111	128	50	45	13573	67.87
VII	Gaining Invertors Trust	f	60	56	38	8	7	6	5	4	3	4	2	3	2	2	200	
		fx	5040	4144	2584	504	413	330	260	192	135	164	74	96	50	30	14016	70.08
VIII	Customers Protection	f	55	45	32	15	8	9	6	5	4	3	5	6	3	4	200	
		fx	4620	3330	2176	945	472	495	312	240	180	123	185	192	75	60	13405	67.02
IX	Personal Data	f	40	25	28	22	23	15	8	7	9	6	5	4	3	5	200	
		fx	3360	1850	1904	1386	1357	825	416	336	405	246	185	128	75	75	12548	62.74
X	Block Chain Transport	f	35	30	25	28	15	10	19	8	5	7	5	4	3	6	200	
		fx	2940	2220	1700	1764	885	550	988	384	225	287	185	128	75	90	12421	62.1
XI	Bitcoin Price Conversion	f	29	32	24	16	12	15	18	7	10	8	6	5	2	2	200	
		fx	2436	2368	1632	1638	944	825	936	336	450	328	222	160	50	30	12355	61.78
XII	Lesser Number Clients	f	48	49	29	16	12	5	8	6	7	4	5	3	6	2	200	
		fx	4032	3626	1972	1008	708	275	416	288	315	164	185	96	150	30	13265	66.32
XIII	Infrastructure Security	f	45	30	21	20	22	15	8	7	6	8	4	5	6	3	200	
		fx	3780	2220	1428	1260	1298	825	416	336	270	328	148	160	150	45	12664	63.32
XIV	Technology	f	50	45	30	15	12	8	10	7	5	4	3	2	4	5	200	
		fx	4200	3330	2040	945	708	440	520	336	225	164	111	64	100	75	13258	66.29

Source : Field Survey
Note : X - scale value
f - number of respondents
R - Rank
Mean score = Total score / N

Table - 3 : Per cent position and Garrett values

Sl.No.	100(Rij-0.5)/Nj	Calculated value	Garrett Value
1	100(1-0.5)/14	3.57	84
2	100(2-0.5)/14	10.71	74
3	100(3-0.5)/14	17.86	68
4	100(4-0.5)/14	25	63
5	100(5-0.5)/14	32.14	59
6	100(6-0.5)/14	39.29	55
7	100(7-0.5)/14	46.42	52
8	100(8-0.5)/14	53.57	48
9	100(9-0.5)/14	60.71	45
10	100(10-0.5)/14	67.86	41
11	100(11-0.5)/14	75	37
12	100(12-0.5)/14	82.14	32
13	100(13-0.5)/14	89.28	25
14	100(3-0.5)/14	96.42	15

Source: (1) Subhash Vagal (2016). Village consumer behaviour towards perishable goods. A study with respect to Ahmednagar district of Maharashtra, Pezzottaite Journals, 5, (3) 2286-2287. (2) https://pd4pro.com.edu

Table - 4: Motivators for adopting Fintech

Motivators	SA	A	SWA	Total
Ease of setting up of an account	17	8	4	29
Effective service quality	19	7	3	29
Good online experience and functionality	19	7	2	26
24/7 access to services	20	10	3	33
Availability of more innovative products when				
compare to traditional financial institutions	19	8	4	31
Ability to access to variety of products & services 18	6	5	29	
Attractive rates and fees	14	5	4	23
Total	126	49	25	200

Source: Field Survey

Note: SA - Strongly Agree, A - Agree, SWA - Somewhat Agree, T - Total

Hypotheses

H0	There exist no significant variation in the data	Reject
H1	There exist significant variation in the data	Accept

ANOVA Table

Source of variation	SS	df	MS	F-ratio	5% F limit	(From F table)	
Between the sample	1087.913	(3-1)=2	1087.9134/2	543.9567/	543.9567	2.76189	196.95
Within the sample	49.714	(21-)=18	49.714/18	(2, 18)	2.79186	3.55	
Total	1137.629	(21-)=20					

Source: Survey Data

ANOVA Analysis: The calculated value being 196.95 higher than the TV = 3.55 @ 5% level of significance with df = v1 = 2 and v2 = 18 fails to accept H0 and accepts H1 and hence it is concluded that there exist significant variation in the data.

Table - 5 : Benefits derived from Fintech

Drivers of benefits	SA	A	SWA	RT	RT2
Higher personalization	20	10	6	36	12.96
Increased speed of services & improved products to the customer	14	7	3	24	576
Efficiency enhancement	10	11	4	25	625
Financial inclusion	8	5	2	15	225
Reduced credit sales	9	5	2	16	256
Regulatory environment (RBI)	16	8	4	28	784
Lower cost of research	12	4	2	18	324
Cheaper and more secure transaction	9	6	4	19	361
Economics in scale in collection & manipulating large branch data	12	4	3	19	361
Total	110	60	30	200	4808

Source : Field Survey
Note : SA - Strongly Agree, A - Agree, SWA - Somewhat Agree, RT - Row Total

SSR = ΣRT2 - (ΣRT)2 / N
= 4808 - (200)2 / 9
= 4808 - 4444.44 = 363.56

W = 12 x SSR / K2N (N2 - 1)
= 12 x 363.56 / 9 x 9 (81-1)
= 4362.72 / 6480
= 0.673

Test the significance of W by using the chi-square statistic.

x2 = k (n-1) w
= 3 (9-1) 0.673 = 3 x 8 x 0.673 = 16.152

Decision: At 8 d.f. with 0.05 level of significance the TV = 15.509. The calculated value being 16.152 which is higher than the TV and hence 'W' reject H0 and accepts H1. Hence, it is concluded that there exist significant relationship among the variables.

Table - 6 : Trends and Fintech

Different Emerging Trends	SA	A	SWA	RT	RT2
Chabot's for customer service	5	5	3	13	169
Machine learning and Artificial Intelligence for fraud detection	26	12	3	45	1681
Omni Channel banking and obsolescence of Bank branches	8	6	2	16	256
Biometric for stronger security	22	4	2	28	784
Block chain for digital transactions	7	5	2	14	196
World class technical framework	9	7	2	18	324
Startup India Program	8	3	2	13	169
Jon Dan Yojana	7	4	3	14	196
National Payment Council of India Initiatives(NPCI)	6	3	1	10	100
Public relation	7	4	1	12	144
Funding trends	5	3	2	10	100
Aadhaar adoption	5	4	2	11	121
Total	115	60	25	200	4240

Source : Field Survey

Note : SA - Strongly Agree, A - Agree, SWA - Somewhat Agree, RT - Row Total

SSR = ΣRT2 - (ΣRT)2 / N

= 4240 - (200)2 / 12

= 4220 - 3333.33 = 906.67

W = 12 x SSR / K2N (N2 - 1)

= 12 x 906.57 / 9 x 12 (144-1)

= 10880.04 / 15444

= 0.70448

Test the significance of W by using the chi-square statistic.

x2 = k (n-1) w

= 3 (12-1) 0.70448 = 3 x 11 x 0.70448 = 23.24

Decision: At 11 d.f. with 0.05 level of significance the TV = 19.675. The calculated value being 23.24 which is higher than the TV and hence 'W' reject H0 and accepts H1. Hence, it is concluded that there exists a significant relationship among the variables.