The Impact of Fintech on Customer Satisfaction and Its Intention to Use: an Empirical Study

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Abstract: The evolution of Financial Technology is the most essential for any financial institution to acquire new customers and to retain them. However, the customers' awareness level and their intention to use / adapt to new technology is always questionable, since it leads to customer satisfaction and loyalty to stay with same brand. Considering the need the present study is intended to understand the customers' perception and their satisfaction level with respect to using FinTech. Also the present study extended to assess the outcome of the customer satisfaction with respect to the intention to use Fintech for their future need. Scientific way of sample selection was adapted and collected responses from 400 people from Coimbatore district using structured questionnaire. A structural equation modelling was validated the proposed model comprising of seven factors with 56 variables used. The result of the study revealed that customers' perceived usefulness and ease of use are having the highest level of influence with respect to customer satisfaction and its intention to use Fintech. The outcomes of each variables used along with its significant impact are discussed in detail in this research paper.

Keywords: Customers Satisfaction, Fintech, Digital Banking, Intention to Use, Convenience, Ease of Use.

1.   INTRODUCTION

The growth of information technology in the financial services industry is remarkable and unavoidable in this digital era. Most of the banks have implemented digitalized application form for opening an account, administering all customer details and their transactions. The synergy between finance with technology coined as FinTech, (Lee and Choi, 2018) used to describe the back end process of financial institutions. At present, it spreads across many

industries/areas such as retail banking, education, fundraising sector, investment management, etc. FinTech helps the organizations, entrepreneurs and consumers to manage their financial transactions and process. Though many industries are benefited, an enormous piece of FinTech actually centres on the conventional worldwide banking industry. Furthermore, India is at the front line of this FinTech transformation, (The Economic Times, 2021).

The FinTech market in India was valued at INR 2.3 trillion during 2020 and it is expected to grow with an annual growth rate of 24.56%. The market value is expected around INR 8.35 trillion during 2026, and this penetration is possible with the presence of strong internet background and aggressive penetration of smart phones, (Businesswire, 2021). As of October 2021, the UPI based transaction registered with a record of 4.21 billion monthly transactions with over 261 banks crossing worth of $100 billion, (Invest India, 2021).

Review of Literature
The development of Financial Technology is inevitable and all must experience the advancements in technologies with respect to financial products and services. Though it is inevitable, few people are welcoming the technological changes, few are reluctant with so many reasons. (Ryu, 2018) researched the reasons for the users' willingness or non-willingness to adapt FinTech. The study found the negative effect on the FinTech extension intention and positive effect with respect to convenience in using. In addition to that, the users' attitude towards adapting to FinTech is highly influenced by the users' trust with FinTech and respective banking system (Hu et al., 2019).

Factors such as perceived value, customer support, assurance, speed and perceived firm innovativeness are positively influencing the customers' experience, while the customers' experience is significantly associated with the loyalty of the customers and intention to stay with the same brand (Barbu et al., 2021). Though many factors are influencing positively, few are to be given the at most important such as security aspects and usefulness of the platform. Inspite of the usefulness, customers are not prepared to pay extra for availing FinTech services (Mustafa et al., 2021). Especially, the male customers' attitude towards using FinTech is very much positive compared to female (Tun-Pin and Yen-SanPui-Yee, 2019).

Few studies were carried out with respect to complaints handling and brand credibility with respect to Fintech services. With no surprise, complaints handling has positive significant impact on customer satisfaction. The customers' overall satisfaction is positively influencing the brand credibility (Shams et al., 2020). The perceived security and trust are playing the mediator role in the effect of technical protection, security, past experience and perceived benefits with respect to the customers' intention to stay with same brand; especially while enjoying electronic payment system service (Diep, 2021).

Considering the consolidated view of previously published research works, the present study confined its objectives as given below.
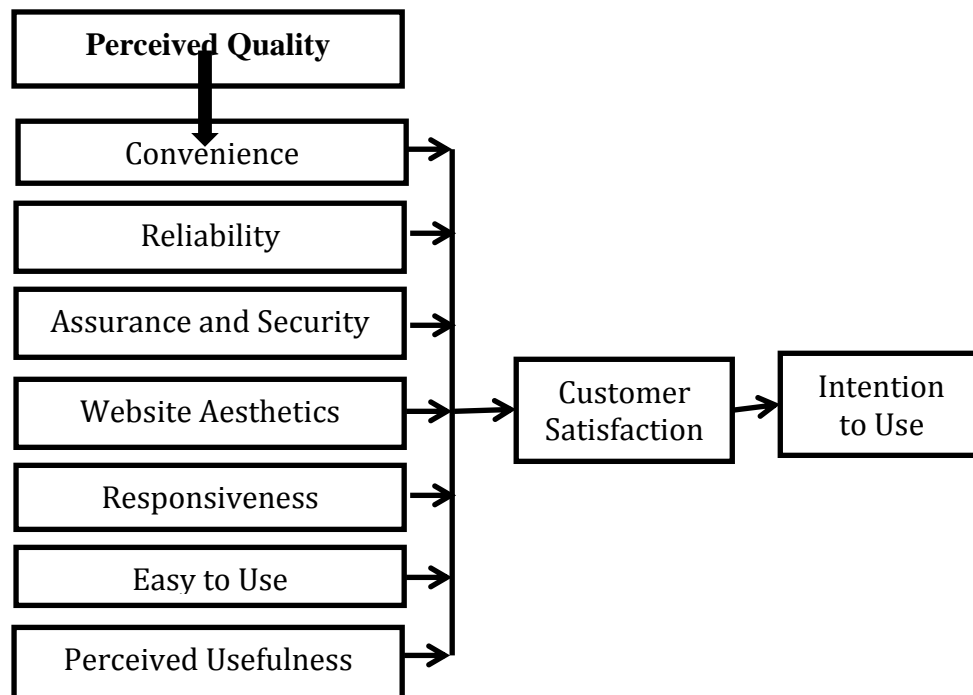
- To understand and assess the significant impact of perceived quality in using FinTech on the customer satisfaction.
- To evaluate the outcomes of customer satisfaction with respect to using Fintech.

Theoretical Background

The convenience and perceived usefulness representing perceived quality are used to assess the customers' attitude (Ryu, 2018). The study revealed the strongest positive effect of users' convenience towards using FinTech. The assurance, customer support, perceived value and ease of use are used to measure the loyalty intention of customers towards using FinTech (Barbu et al., 2021) and (Zhang and Kim, 2020). The results of the study revealed that the assurance, customer support and perceived value are having significant positive impact on customers' experience towards using FinTech. The variables under usefulness help to change the attitude of the customers' towards using FinTech (Mustafa et al., 2021). The customers' complaint handling is positively influencing the customers' satisfaction, which leads to banks credibility (Shams et al., 2020). On the other hand perceived usefulness and perceived ease of use have no effect on the adoption of Mobile Payment System (Dastan and Gurler, 2016).

The present study reviewed the previously published research works and based on the reviews, proposed to use factors such as Convenience, Reliability, Assurance and Security, Website Aesthetics, Responsiveness, Easy to recover and Perceived Usefulness under the dimension of perceived quality to assess its impact on the customers' attitude and behaviour towards using FinTech. These six dimensions as perceived quality are proposed in this study to assess the customer satisfaction and subsequent intention of the customers to use FinTech for their needs. The proposed conceptual model is tested using the frame hypothesis as given below.

Figure 01: Conceptual Model

H1: There is a significant impact of perceived quality in using FinTech on the customer satisfaction.

The outcome of customer satisfaction reflected on increasing customer's trust with the financial institution, increasing customer commitment, customer's intention to use and positive word-of-mouth (Barbu et al., 2021). Inspite of nuemerous outcomes expected out of customer satisfaction, the present study intended to validate the outcome with respect to the intention to use FinTech. Hence, the following hypothesis is framed to check its significant impact.
H2: There is a significant impact of customer satisfaction on the intention to use FinTech for their financial transaction.

2. METHODOLOGY

Descriptive type of research is adapted in the present study in which factors such as convenience, reliability, assurance & security, website aesthetics, responsiveness, easy to use and perceived usefulness are used to identify the customers' perception about using FinTech in Coimbatore district. As per the Coimbatore district census record (Census, 2011), population of the district is 34,58,045 comprising of people from both urban and rural areas. The current population size is yet to be finalized. Hence, scientific way of sample selection is adapted, as the population size for the study is known. A sample of 400 [e=0.05] respondents is selected randomly and collected their details using a structured questionnaire, comprising the variables from the identified factors to assess the customers' perception and satisfaction

about using FinTech. The reliability level and the internal consistency of the questionnaire used is validated using Cronbach's Alpha. The collected data are analysed using SPSS [Version 19], and the statistical tools such as Factor Analysis, KMO Measure of sampling adequacy and Bartlett's test of sphericity are used for the analysis.

3. ANALYSIS AND DISCUSSION

The collected 400 responses and the respondents demographic profile is presented in table 01, as given below.

Table 01 - Respondents' Profile

S.No	Profile		No. of Respondents	Percentage
1	Gender	Male	263	65.8
		Female	137	34.3
	Total		**400**	**100.0**
2	Age in years	Less than 25 yrs	74	18.5
		25 to 35 yrs	114	28.5
		35 to 45 yrs	64	16.0
		45 to 55 yrs	96	24.0
		More than 55 yrs	52	13.0
	Total		**400**	**100.0**
3	Marital Status	Unmarried	114	28.5
		Married without kids	52	13.0
		Married with kids	212	53.0
		Others	22	5.5
	Total		**400**	**100.0**
4	Nativity	Rural	142	35.5
		Urban	258	64.5
	Total		**400**	**100.0**
5	Educational Qualification	Upto higher secondary	32	8
		Under graduation	182	45.5
		Post graduation	90	22.5
		Diploma	62	15.5
		Others	34	8.5
	Total		**400**	**100.0**
6	Occupation	Housewife	22	5.5
		Student	65	16.3
		Private employment	124	31.0
		Government employment	94	23.5
		Agriculture	48	12.0

		Business	15	3.8
		Others	32	8.0
Total			**400**	**100.0**

The demographic profiles of the respondents are presented in the above table indicating the respondents' age, gender, marital status, nativity, qualification and occupation. It is understood from the above data that 65.8% of the respondents are male and the dominant category of age group is between 25 to 35 years old. 212 out of 400 respondents are married having kids at home and majority of the respondents are living in urban areas, 258 out of 400 respondents. The dominant category of the respondents educational qualifications are having under graduation, 45.5% of the respondents and 124 out of 400 respondents are working in a private firm in and around Coimbatore.

Table 02 – Customers' Perception

S.No	Factor	Mean	Standard Deviation	Co-efficient of variation in %
1	Convenience	3.3045	0.4172	12.62
2	Reliability	3.7145	0.5088	13.69
3	Assurance and Security	3.4713	0.3962	11.41
4	Website Aesthetics	3.5666	0.3464	9.71
5	Responsiveness	3.7199	0.5229	14.05
6	Easy to Use	3.8243	0.5868	15.34
7	Perceived Usefulness	4.1224	0.5041	12.22

The customers' perception is at high end for the variables grouped under perceived usefulness, as the mean value of perceived usefulness is the highest among the other, whereas convenience is given at the lowest important, 4.1224 and 3.3045 respectively. The higher consistency is noticed in the case of views on website aesthetics and assurance & security since its co-efficient of variation is 9.71 and 11.41 respectively.

3.1 Reliability Measures

A total of seven factors such as convenience, reliability, assurance & security, website aesthetics, responsiveness, easy to use and perceived usefulness are used in this study to measure the customers' perception about using FinTech and their satisfaction level. Cronbach's Alpha was applied on the constructed variables to check its internal consistency and its outcomes are presented below.

Table 03 – Reliability Test

S.No	Dimensions	No. of Variables	Cronbach's Alpha Value
1	Convenience	8	0.826
2	Reliability	8	0.772
3	Assurance and Security	8	0.892
4	Website Aesthetics	8	0.820
5	Responsiveness	8	0.863
6	Easy to Use	8	0.786

7	Perceived Usefulness	8	0.813

The data from the above table confirms the internal consistency of the questionnaire used, as the values are higher than the standard level of 0.7.

3.2 Factor Analysis

The result of Cronbach's Alpha test confirms the reliability and internal consistency of the questionnaire used in this study. Hence, the factor analysis is used to find out the important factors or variables form the customers' view point with respect to using FinTech. A total of 56 variables covering seven factors are used and the outcome of factor analysis is presented in table 04, as given below.

Table 04 – Factor Analysis.

S.No	Dimensions	Factor
1	**Convenience**	
	1. The FinTech platform guides me properly in all transactions.	0.723
	2. FinTech transaction is fast and easy to me.	0.688
	3. FinTech helps to access my bank account from anywhere by using PC / Laptop / Mobile / Tab, etc.	0.594
	4. Convenient in getting updated records of all transactions made by me.	0.644
	5. My bank frequently updates its internet banking website / page.	0.751
	6. FinTech guides me in resolving basic problems.	0.348*
	7. FinTech would meet my service needs.	0.768
	8. FinTech service can save time.	0.821
	Eigen Value	**2.142**
	Variance Explained	**62.32**
	KMO Measure of Sampling Adequacy	**0.712**
	Bartlett's test of Sphericity (Significance Level)	**0.000**
2	**Reliability**	
	1. The FinTech when it promises to do something in a certain time, it does so,	0.614
	2. The FinTech service performs the service right at the first time.	0.812
	3. Order tracking details are available until delivery.	0.752
	4. The FinTech service is available all the time.	0.813
	5. I prefer FinTech rather than visiting bank for my needs.	0.770
	6. I feel comfortable in doing Fintech operations.	0.774
	7. I enjoy uninterrupted service via FinTech.	0.814
	8. I never saw my FinTech service provider at down or not working.	0.792
	Eigen Value	**1.674**
	Variance Explained	**55.84**
	KMO Measure of Sampling Adequacy	**0.735**
	Bartlett's test of Sphericity (Significance Level)	**0.000**

3	Assurance & Security	
	1. The FinTech platform has adequate security features.	0.732
	2. The FinTech platform has a good reputation.	0.674
	3. I feel I can trust this FinTech platform.	0.814
	4. I faced error free transaction via FinTech.	0.866
	5. Transactions via FinTech are safe.	0.874
	6. Data sharing with FinTech service provider is safe.	0.810
	7. Fintech transactions are highly protected by OTP / Password enabled.	0.765
	8. FinTech services protect my account from being hacked or operated by others.	0.735
	Eigen Value	**2.730**
	Variance Explained	**63.24**
	KMO Measure of Sampling Adequacy	**0.712**
	Bartlett's test of Sphericity (Significance Level)	**0.000**
4	Website Aesthetics	
	1. The aesthetics of FinTech websites / mobile apps promotes a perception of quality.	0.831
	2. The branding of FinTech websites / mobile apps should be consistent with my current perceptions of these companies.	0.572
	3. Too much third party advertisement is not helpful when using FinTech service.	0.785
	4. The look and feel of the website / mobile app is important when using FinTech services.	0.818
	5. Finding your way in the website / mobile app is easy.	0.864
	6. Scrolling through pages is kept to a minimum.	0.764
	7. Graphics and animation do not detract me from use.	0.720
	8. Navigation is consistent and standardized.	0.814
	Eigen Value	**2.715**
	Variance Explained	**57.19**
	KMO Measure of Sampling Adequacy	**0.000**
	Bartlett's test of Sphericity (Significance Level)	**0.00**
5	Responsiveness	
	1. The FinTech supports in prompt respond to requests.	0.824
	2. The FinTech supports in solving the problems right at the first time.	0.624
	3. The FinTech enhance proactive approach.	0.755
	4. Automated or human e-mail responses give customers prompt service.	0.711
	5. Email systems are both inbound and outbound to deal with customer complaints.	0.831
	6. Website addresses are included in all existing documentation, publicity and advertising channels.	0.759

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	7. Emails are relevant and accurate and appropriate to customer requirements.	0.727
	8. The website shows sincere interest in resolving any problems.	0.862
	Eigen Value	**1.974**
	Variance Explained	**59.62**
	KMO Measure of Sampling Adequacy	**0.713**
	Bartlett's test of Sphericity (Significance Level)	**0.000**
6	**Ease of use**	
	1. Learning to use FinTech would be easy for me.	0.865
	2. I think the operation interface of FinTech is friendly and understandable.	0.872
	3. It is easy to have the equipment to use FinTech services (Mobile, APP, WIFI, etc.).	0.904
	4. Navigation is quick when I use FinTech on internet.	0.882
	5. Learning how to navigate FinTech website / mobile app does not take long time for me.	0.772
	6. Shopping using FinTech allows me to easily shop for what I want.	0.694
	7. It is easy to become confident at FinTech based transactions.	0.795
	8. FinTech websites / mobile apps are easy to use.	0.863
	Eigen Value	**2.933**
	Variance Explained	**74.24**
	KMO Measure of Sampling Adequacy	**0.766**
	Bartlett's test of Sphericity (Significance Level)	**0.000**
7	**Perceived Usefulness**	
	1. The information obtained from FinTech is useful.	0.726
	2. I learned a lot from using FinTech.	0.814
	3. Using FinTech makes me feel good.	0.914
	4. Using FinTech makes me feel optimistic.	0.762
	5. I save money using FinTech	0.843
	6. For a given price, I rate the FinTech offer as good	0.860
	7. FinTech would improve my performance in making payments	0.842
	8. FinTech would enhance my effectiveness in making payments	0.764
	Eigen Value	**2.123**
	Variance Explained	**84.24**
	KMO Measure of Sampling Adequacy	**0.704**
	Bartlett's test of Sphericity (Significance Level)	**0.000**

*Not having sufficient factor loading

From the above table it is confirmed that all variables used in this study are having sufficient factor loading of higher than the standard level of 0.7, except a variable from Convenience. Variable named "FinTech guides me in resolving basic problems" having factor loading of 0.348, which is not a standard variable to measure customers' perception and satisfaction.

The variables from two factors namely Perceived Usefulness and Ease of Use are having higher variance explained, 84.24% and 74.24% respectively. Similarly, the higher Eigen values are found in two factors namely Ease of Use and Assurance & Security, 2.933 and 2.730 respectively.

3.3 Path Diagram and Research Model Verification

The present study is designed with three variables namely, independent variables, mediating variable and outcome variable. Dimensions such as convenience, reliability, assurance & security, website aesthetics, responsiveness, easy to use and perceived usefulness are representing perceived quality which is considered as independent variable of this study. The customer satisfaction in using Fintech is considered as mediating variable while the customer's intention to use FinTech for their financial need is considered as the outcome variable. The path diagram with the above mentioned variables is given below.

Figure 02 – Path Diagram.
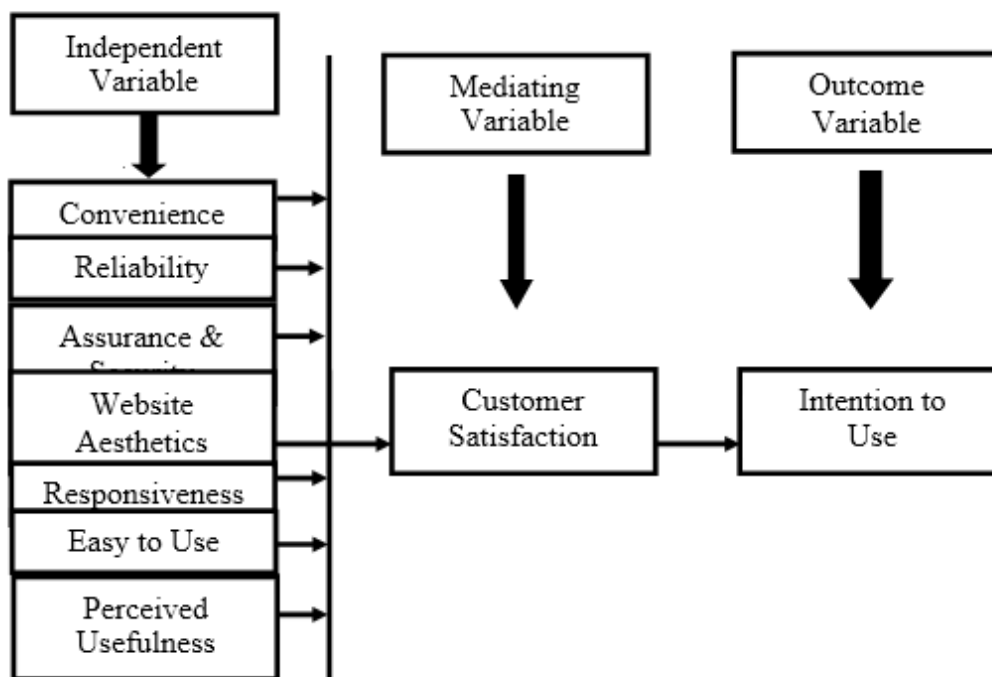
Before applying SEM, it is important to examine the content and convergent validity in each construct developed for this study. The respondents' ratings with respect to their perception in using FinTech have been included for Confirmatory Factor Analysis (CFA) with the intention to verify the content and convergent validity. The outcome of the CFA is given in table 05.

Table 05 – Content and Convergent Validity

S.No	Factor	Range of standardized factor loading	Composite Reliability	Average Variance Extracted
1	Convenience	0.9134* - 0.6128*	0.7749	62.32
2	Reliability	0.8827*- 0.6354*	0.7684	55.84
3	Assurance and Security	0.8843* - 0.6373*	0.7427	63.24
4	Website Aesthetics	0.8654* - 0.6421*	0.7086	57.19
5	Responsiveness	0.8379* - 0.6348*	0.7341	59.62
6	Easy to Use	0.8799* - 0.6382*	0.7342	74.24
7	Perceived Usefulness	0.9137* - 0.6425*	0.7611	84.24

Significant at 5% LOS

The content validity is evidenced in all seven factors since the standardized factor loading of variables in each factors are greater than the standard level of 0.60. The convergent validity is also confirmed since the standardized factor loading of all variables is significant at 5% level. It is also proved with the composite reliability and average variance extracted since these are greater than its standard minimum level of 0.50 and 50% respectively.

The fitness of the proposed model is confirmed by the significance of Chi-square, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA). The calculated values and its benchmark (Fan, et al. 2016) are listed in table 6 as given below.

Table 06 – Model Fit

Indices	Significance of chi-square	GFI	AGFI	TLI	CFI	RMSEA
Actual	0.0192	0.9032	0.9147	0.9317	0.9286	0.0175
Benchmark	≤ 0.05	≥ 0.9	≥ 0.9	≥ 0.9	≥ 0.9	≥ 0.05

The Chi-square of the proposed model and RMSEA are significant at 5% level of significance which is lesser than the standard level of 0.05. The values of GFI, AGFI, TLI and CFI are greater than the standard threshold level of 0.9. Hence, it is confirmed the validity of the estimated path model by Structural Equation Modelling.

The outcome of Structural Equation Model and its path coefficients is given in Figure 3, as below.
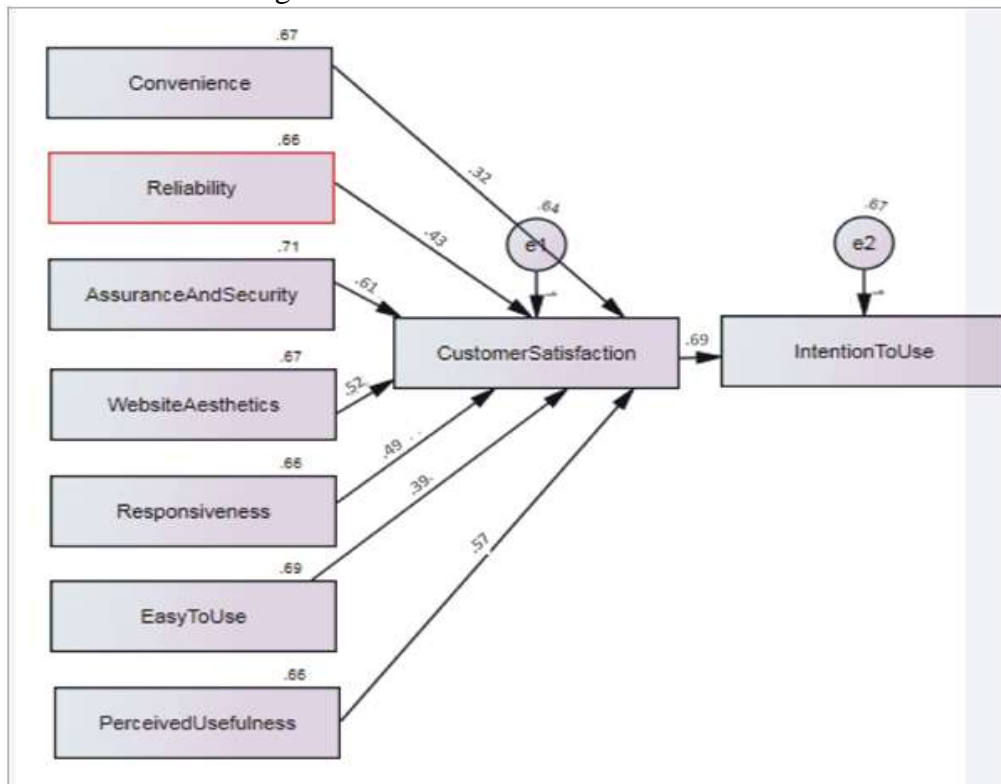
Figure 03 – Customer Satisfaction Model

Table 07 - Estimates

			Estimate	S.E.	C.R.	P Label
CustomerSatisfaction	<---	Convenience	.327	.049	6.673	***
CustomerSatisfaction	<---	Reliability	.432	.049	8.816	***
CustomerSatisfaction	<---	AssuranceAndSecurity	.613	.047	13.042	***
CustomerSatisfaction	<---	WebsiteAesthetics	.520	.049	10.612	***
CustomerSatisfaction	<---	Responsiveness	.492	.049	10.040	***
CustomerSatisfaction	<---	EasyToUse	.394	.048	8.208	***
CustomerSatisfaction	<---	PerceivedUsefulness	.572	.049	11.673	***
IntentionToUse	<---	CustomerSatisfaction	.691	.051	13.549	***

The outcome and path coefficients presented in the above model confirms that the factors such as convenience, reliability, assurance & security, website aesthetics, responsiveness, easy to use and perceived usefulness are statistically significant to measure the customer satisfaction. The overall customer satisfaction is statistically significant to confirm its outcome as the intention to use FinTech for the need of customers. Hence, the proposed model is statistically significant and validated to use for measuring customer satisfaction and its outcome as the intention to use Fintech for the customers need.

Scope for Future Research
Though the present study is planned and executed meticulously, it also leaves space for the future research. The present study is confined with the aim to assess the outcome as the intention to use FinTech for the customers' need. The outcome can be extended to check the customers' loyalty in staying with the same brand with respect to using Fintech. In addition to that, the customers' demographic profile can be considered as one of the mediating variables in understanding their satisfaction level and intention to stay with same brand. Hence, the outcome may be evaluated with or without the effect of mediating variables.

4. CONCLUSION

The present study aimed to understand the customers' perception and their satisfaction level with respect to using FinTech. Also the present study extended its scope to understand the outcome of the satisfaction with respect to the intention of customers to use Fintech for their future need. A structural equation modelling was validated the proposed model comprising of seven factors with 56 variables used. The present study concluding with the recommendation to the banks located in Coimbatore district to think of the proposed factors and its variables to ensure their customer satisfaction and their intention to use Fintech. Among all factors, customers' perceived usefulness and ease of use are having highest level of influence with respect to customer satisfaction and its intention to use Fintech. Though Financial Technology is unavoidable, it is mandatory for the banks to ensure their customers awareness level and satisfaction in using Fintech.

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