Customer Satisfaction as a Mediator between FinTech Service Quality and Loyalty: An SEM Based Analysis

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Abstract

In recent years, the rapid growth of financial technology (FinTech) has revolutionized the delivery of financial services and is enabling the development of faster, more convenient, and accessible financial services solutions for consumers. Despite the abundance of FinTech platforms, it also offers a problem of ensuring customer loyalty as service quality, trust in reliability and quality of service as the user experience vary from one provider to another. This study investigates the mediating effect of customer satisfaction in the link of FinTech service quality and customer loyalty in Pakistan. Drawing upon the Service Quality (SERVQUAL) and the difference theory of loyalty, the research examines how dimensions of service quality such as reliability, responsiveness, assurance, empathy and tangibles affect customer satisfaction, which then affects loyalty intentions. Data collection was carried out from 400 users of FinTech services in urban and semi-urban areas and structured questionnaires were used. Using correlation, regression and structural equation modelling (SEM), the results show that the service quality has a significant impact on the customer satisfaction, and customer satisfaction mediates fully the impact of service quality on customer loyalty. The study offers empirical insights to FinTech providers and the policymakers to improve the quality of services, strengthen the customer satisfaction and create customer loyalty for the long term customers in Pakistan.

Keywords: *FinTech, service quality, customer satisfaction, customer loyalty, mediation, Pakistan, SERVQUAL*

Introduction

The fast-moving developments in financial technology (FinTech) have substantially altered the landscape of financial services and given consumers creative, innovative solutions that are faster, more convenient, and have broad accessibility (Sroeurn & Kohsuwan, 2025). FinTech covers a wide range of services such as mobile banking, digital payments, online lending, and investment platforms, and all these have the aim of making financial transactions more efficient and financial inclusion a reality (Gomber et al., 2017). In Pakistan, the usage of FinTech services has taken off because of rising smartphone penetration, internet availability, and growing use for cashless transactions (SBP, 2020). The growth of such technologies has not diminished the importance of customer loyalty to the FinTech providers because they are always looking to migrate to a different platform and experience because of their perceived quality of service, user experience, and trust (Ahmed and Farooq, 2021).

In most industries including financial services, service quality has been well known to be a crucial factor in influencing customer satisfaction and customer loyalty. Parasuraman, Zeithaml, and Berry (1988) developed SERVQUAL framework and have five dimensions of service quality namely reliability, responsiveness, assurance, empathy and tangibles. Reliability, in the sense of FinTech, is the ability of online platforms to deliver reliable, correct and error-free transactions. Responsiveness indicates promptness of responding to customer questions and resolving problems. Assurance includes competence, credibility and security, which are very important in digital financial services, where trust is of paramount importance. Empathy refers to the personalized attention and sensitivity towards customer needs whereas, tangibles refer to the designing, usability, and look and feel of the platform interface (Parasuraman and al., 1988). High-quality FinTech services using these dimensions to enhance user experience, lessen transaction risks, create a sense of satisfaction which is essential for building long-term loyalty (Lee & Shin, 2018).

Customer satisfaction is the key factor in the relationship between service quality and loyalty. Satisfaction is defined as the whole judgment of the consumer's overall evaluation of the service experience based on expectations and perceived performance (Apriliani et al., 2024). In the case of the FinTech space, satisfied customers may be more likely to remain with the platform, recommend it to others, and feel some level of attachment or loyalty. Empirical research recommends that service quality directly and indirectly influences loyalty through customer satisfaction and satisfaction in many cases mediated the association between service quality and loyalty (Hassan et al., 2020). In a country like Pakistan where FinTech adoption is also a developing phenomenon and where user experience varies significantly in terms of the experience on different service platforms, the mediating effect of satisfaction is a question that plays significant roles in striving to enhance their services coupled with strategies to enhance their retention.

Some peculiar challenges that the FinTech sector in Pakistan encounters are the unawareness of financial literacy, distrust, regulatory regime and competition between the online platforms (Raza et al., 2019). These may influence the perceptions of customer on the quality of the service and this may eventually influence the customer on satisfaction and loyalty. Digital finance lends particular importance to reliability and security because fraud, data privacy and errors are of concern during transactions. Emphasis and sensitivity will also contribute to providing good user experiences particularly in areas where customers are having technical issues or require specialized instructions by a company. Physicals like the interface design, convenience of moving around the platform and provision of platform functionalities also influence customer perceptions and determine the extent of satisfaction (Liu et al., 2019). By listening to such dimensions FinTech providers can create services that can fulfill the consumer expectations, and the customers will be happier and loyal.

This study has a theoretical background founded on SERVQUAL model and the notion of loyalty. The SERVQUAL model is a great model in taking a look at quality of service through various dimensions, which enables an empirical evaluation of the value of each of the aspects in satisfaction and subsequent loyalty intentions (Parasuraman et al., 1988). According to the theory of loyalty, the sustained satisfaction with the service will produce repeat usage of the service, resistance to change to a different service, and positive word-of-mouth that are fundamental to the sustainable growth of the business (Oliver, 1999). The combination of these frameworks within the frameworks of the adoption of FinTech allows one to fully grasp the interaction between the quality of the service and its satisfaction and loyalty.

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Global FinTech market research evidence indicates service quality in the promotions of satisfaction and loyalty. Indicatively, the studies conducted in China and India indicate that reliability, responsiveness, and perceived security can significantly enhance user satisfaction, which mediates the impacts of service quality on the intentions to be loyal (Liu et al., 2019; Gupta et al., 2020). There are not many empirical studies of the relationships in the market of FinTech sector in Pakistan, and the gap of such studies includes the information regarding how satisfaction functions as a mediator between service quality and loyalty. This gap is important in the pursuit of addressing it by practitioners and policy makers aiming to gain a clearer insight on how to package digital financial services offers and make them long term accessible.

Additionally, socio-demographic factors like age and gender and education and occupation could be moderates in the perceptions of the service quality and its impact on satisfaction and loyalty. The younger users tend to be more technology conscious and platform conscious and the older users may be more concerned with reliability and security. Digital financial behavioral differences between males and females have also been found, as well as a disparity in the fact that women are more responsive to the service nature and more sensitive to personal assistance (Ahmed and Farooq, 2021). The level of education and occupation can influence the capacity of the users of the technology to comprehend the peculiarities of the platform, to evaluate the risk, and to utilize it sufficiently. Consequently, the research of both the quality and satisfaction of services in relation to the loyalty cannot be completed without the individual and contextual factors that influence user experiences.

Literature Review

The development of FinTech has also resulted in a revolution in the financial services industry with digital solutions that were able to provide speed, convenience, and accessibility to the consumers. The emergence of mobile banking, e-wallets, online lending, and investment platforms has transformed the traditional way businesses are conducted under the conventional banking rules such that users are able to conduct financial transactions anytime and anywhere (Gomber et al., 2017). With this rapid growth, customer retention is a burning issue of concern among the FinTech providers, with customers easily moving between the websites based on their perception of the quality of services provided and satisfaction (Ahmed and Farooq, 2021). Consequently, it is essential to understand the processes that affect the quality of service with its influence on loyalty through the mediating role of customer satisfaction to maintain long-term engagement and to promote financial inclusion (Zaredoost & Bahramzadeh, 2025).

Service quality is a multidimensional construct that has been extensively studied in the different industries. The SERVQUAL framework developed by Parasuraman, Zeithaml and Berry in 1988 is considered one of the most widely-used models for assessing quality of service. It identifies 5 key dimensions (reliability, responsiveness, assurance, empathy and tangibles). Reliability means the capacity of a service provider to provide accurate, consistent, and reliable services. In the FinTech context, reliability includes accurate transactions, error-free operations and uninterrupted digital services. Responsiveness is willingness and promptness of helps of providers related to assist customers, answer to the questions and solve the problems. This dimension is extremely important in the field of digital finance where technical issues occur, or transactions delay, they can quickly impact user confidence. Assurance refers to knowledge, competency, credibility, and trustworthiness of service providers, especially of concern in financial services where matters of security and privacy are prime. Empathy is personalized attention, understanding the user needs and providing personalized

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supports and tangibles are physical and digital aspects of the service, which includes the user interface, platform design, and accessibility support features. Research reveals that these dimensions have a combined effect on customer satisfaction that in turn causes them to develop loyalty intentions (Lee & Shin, 2018).

Customer satisfaction plays a key role in service marketing and the model of behavioral finance. It is defined as the overall evaluation of the service experience made by the consumer comparing the expectations against the perceived performance (Oliver, 1999). Satisfaction is one of the main factors behind customer loyalty as satisfied customers are more likely to use a service again, recommend it to others, and become long-term customers of a brand or platform. In the FinTech space, satisfaction is influenced by service quality measures like reliability, security, usability and responsiveness. The empirical study in study findings suggests that customer satisfaction mediates between service quality and customer loyalty, which means if the quality of service is high, then customer satisfaction increases and in this case customer loyalty behavior increases (Hassan et al., 2020). This mediating role is especially important in the context of digital financial services where users may not have as much personal interaction with the service providers, perceptions of quality and satisfaction may be important determinants of whether they continue to use the service.

Several studies have witnessed the importance of service quality in the making of satisfaction and loyalty in digital financial affairs. Indicatively, Liu et al., (2019) established that the reliability and security of mobile payment platforms influence customer satisfaction to a great extent, which mediates customer loyalty intentions among Chinese consumers. On the same note, Gupta, Arora and Sharma (2020) demonstrated that responsiveness and assurance was also significant in enhancing satisfaction and retention of digital banking users in India. In Pakistan, there are not many empirical researches that are done on these dynamics however available empirical data indicates that service quality dimensions, in particular, reliability and assurance of quality are critical in developing user satisfaction and loyalty towards the use of FinTech (Raza et al., 2019). These results highlight the importance of considering satisfaction as a mediator to explain how service quality can be translated into loyalty.

Theoretical frameworks serve as a basis for examining the link between the quality of services, satisfaction and loyalty. SERVQUAL provides a powerful model to measure perceptions of quality, whereas loyalty theory gives a special place to satisfaction in the generation of repeat usage and behavioral commitment (Parasuraman et al., 1988; Oliver, 1999). Integrating them uncover the possibility for researchers to explore both the cognitive evaluations (perceived service quality) and the affective responses (satisfaction) on the prediction of the loyalty outcome. In the area of digital financial services, such integration is particularly useful given the well-known fact that the interaction between users and providers often occurs mediated by technology, meaning that the level of satisfaction is a central intermediary factor for maintaining long-term customer loyalty between delivering technical services and establishing lasting customer loyalty.

The dimensions of service quality have different contributions to the development of satisfaction and allegiance. Reliability ensures that the transactions are carried out accurately and consistently reducing uncertainty and giving more confidence in the platform. Responsiveness means user concerns are addressed and address matters such as error or delayed action to mitigate user dissatisfaction. Trust is developed through assurance being able to demonstrate competence, security and compliance with regulations is essential, which is vital in a sector such as financial services where perceived risk leads

to failure to adopt. Empathy assists in the process of providing user experience with personalized communication and the realization of individual needs, and creates an emotional connection with a platform. The interface design of the platform, functions, and accessibility of the platform are tangibles that influence how people view convenience and ease of use (Parasuraman et al., 1988; Lee and Shin, 2018). A combination of these dimensions assists in building a service environment that encourages customer satisfaction that eventually would lead the customers to behave in a loyal way.

Empirical research also emphasizes the significance of trust and perceived risk to the satisfaction and loyalty measure in the FinTech. In SERVQUAL model, trust is related closely to assurance and is essential to digital financial services due to the fear of data privacy, security breaches coupled with the fear of fraud. Researches have indicated that trust in stimulating greater satisfaction by reducing the perceived risk resulting in greater intent to remain loyal to the brand in question (McKnight et al., 2011). Equally, financial literacy moderates how users perceive the quality of the services and their satisfaction because users with financial literacy are able to judge features of the sites, safety measures, and transactions (Lusardi and Mitchell, 2014). In a nation like Pakistan with different degrees of financial literacy and where digital fraud goes rampant, such problems become clearer. Enhancing customer satisfaction involves functional aspects of service quality, as well as affective components such as trust and confidence in the credibility of the platform.

Socio-demographic factors also have an impact on the service quality perception, satisfaction and loyalty. Age, gender, educational level, and occupation impact the way users rate service features, balance between reliability and responsiveness, and their understanding of risk (Ahmed & Farooq, 2021). Younger age group, educated users are generally better suited to the use of digital platforms, sensitive to the tangibles, and they have an approach to value the responsiveness and convenience. Individualized support and empathy may be appreciated by women whereas assurance and reliability may be highly appreciated by older users. The knowledge of these categories of moderating effects will play a significant role in the development of specific intervention measures that will be able to increase both satisfaction and the formation of loyalty in different groups of users.

Customer satisfaction plays a mediating role in the literature on service marketing that has been well established. When service quality leads to greater satisfaction that will form a positive feedback loop leading to loyalty intentions. This mediation has been shown in banking, hospitality and digital services sectors (Hassan et al., 2020). In the case of FinTech, satisfaction is especially critical since users have substitutes and switching costs are low. High quality services alone may not ensure satisfaction and factors that lead to loyalty unless they also create satisfaction that encourages further engagement and positive word-of-mouth. Therefore, examination of satisfaction as a mediator yields nuanced understanding as to the mechanisms of influence of service quality and loyalty.

Furthermore, service quality improvements can result in competitive advantages in the FinTech sector. Companies that consistently provide reliable, responsive, secure and user friendly services build satisfaction and loyalty to the business and result in low churn. Empirical research has proposed that satisfaction mediates much of the impact from quality of service on loyalty, thus the focus on user experience may be as important as just the innovation of the technical aspects (Liu et al., 2019; Gupta et al., 2020). In emerging markets such as Pakistan, where the digital financial infrastructure is in its development stage, maintaining high standards of service and dictating customer satisfaction is important for the sustainable growth of the industry.

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The literature shows a consistent fact that service quality has a positive relationship with customer satisfaction that leads to customer loyalty. Each dimension of service quality, namely reliability, responsiveness, assurance, empathy and tangibles, has a unique role in influencing satisfaction and loyalty intention. Further moderation of these relationships is also based on trust, perceived risk, financial literacy, and socio-demographics, which indicates the complexity of the functional, psychological, and context determinants. Despite increasing levels of adoption of FinTech in Pakistan, there is a lack of empirical studies that analyze customer satisfaction as a mediator between service quality and loyalty. Addressing this gap will yield critical insights for FinTech providers to help them improve service delivery, promote service satisfaction and foster customer loyalty in emerging digital financial markets, in the long term.

Data and Methodology

Research Design

This study takes a quantitative research design to study the role of customer satisfaction as a mediating variable between FinTech service quality and customer loyalty in the case of Multan, Pakistan. A quantitative approach is appropriate due to the possibility to systematically measure the relationships between constructs, hypothesis testing, and generalization of the findings to the wider population of FinTech users (Creswell, 2014). The study is based on the SERVQUAL model (Parasuraman et al., 1988) to measure the dimensions of service quality and customer satisfaction theory to measure customer's propensity to develop a sense of loyalty (Oliver, 1999). The conceptual model is based on the idea that service quality affects customer satisfaction, in turn, affects customer loyalty, placing satisfaction between the two variables as a mediator.

Population and Sampling Procedures

The population of this study includes persons living in urban and semi-urban areas of Multan district, Pakistan who use or have experience of FinTech services such as mobile banking services, online payment systems, using digital wallets, and investment platforms. The study is based on a convenient sampling method. A total of 400 respondents were targeted which was based on the sample size determination formula according to Krejcie and Morgan (1970) so as to provide adequate statistical power for the regression and Structural Equation Modeling (SEM) analyses. The sample comprises students, professionals, business owners, and other working adults, as this represents the target users of FinTech platforms in Multan, Pakistan. Data collection method is combined between online survey and paper-based administration. Online surveys were aimed at people who are active on social media, mobile apps, and FinTech platforms, and the in-person surveys took place in Multan. A pilot study of 30 respondents was carried out to assess the reliability and clarity of the instrument. Cronbach's alpha was computed for the internal consistency, with all constructs surpassing 0.70 threshold to be considered as acceptable reliability (Nunnally, 1978).

Measurement of Variables

Data collection was carried out with a structured questionnaire, which was developed in order to measure quality of service, customer satisfaction, and intention for customer loyalty. Service quality was operationalized based on five dimensions of SERVQUAL: reliability, responsiveness, assurance, empathy and tangibles (Parasuraman et al., (1988). Each dimension contained several items that were rated on a five-point Likert scale (strongly disagree = 1, strongly agree = 5). Customer satisfaction

was measured using items about user's overall evaluation about FinTech services in terms of performance, usability and experience (Oliver, 1999). Loyalty was measured by such indicators as whether an intention of reusing the service, whether would recommend it to someone else, and whether are resisted to switch to another platform. The questionnaire was developed in English and reviewed by experts in the fields of finance, digital services and behavioral research for content validity and clarity.

Data Analysis Techniques

For data analyses, descriptive statistics were calculated in order to summarize demographic characteristics and construct distributions. Pearson correlation analysis was performed to analyze bivariate relationships between the service quality, customer satisfaction and loyalty. Multiple regression analysis was used to examine the prediction effect of service quality and satisfaction and loyalty, and mediation analysis was performed using the Structural Equation Modeling (SEM) to examine the mediating effect of customer satisfaction. The methodology approach will be useful in offering an in-depth analysis of the effects of service quality on customer satisfaction and customer loyalty within the FinTech industry in Multan, Pakistan. The study provides empirical evidence regarding the mediation role of satisfaction in the relationship between quality of service and loyalty by providing good sampling, good measuring instruments, and advanced statistical analysis. The results hold practical implications to the FinTech providers in regards to better service delivery, better user satisfaction, and long-term customer loyalty in the emerging digital financial markets.

Data Analysis and Findings

Demographic Profile

Table 1 summarizes the demographic characteristics of the respondents.

Table 1: Demographic Profile of Respondents (N = 400)

Variable	Category	Frequency (f)	Percentage (%)
Age	18–24 years	86	21.5
	25–34 years	160	40.0
	35–44 years	98	24.5
	45+ years	56	14.0
Gender	Male	192	48.0
	Female	208	52.0
Education	Secondary	90	22.5
	Higher Secondary/Bachelor's	178	44.5
	Master's or above	132	33.0
Occupation	Student	84	21.0
	Professional	174	43.5
	Business	78	19.5
	Other	64	16.0

The sample is evenly distributed among both genders and has different age groups, education and occupations which represent the main users of FinTech platforms.

Reliability Analysis

Cronbach's alpha was used to obtain the internal consistency of the constructs. The reliability coefficients can be found in Table 2. Strong reliability of all constructs (a > 0.70) all constructs measure what they are intended to measure (Nunnally, 1978).

Table 2: Reliability of Constructs

Construct	Cronbach's Alpha
Service Quality	0.88
Customer Satisfaction	0.87
Customer Loyalty	0.86

Descriptive Statistics

Table 3 shows the mean and standard deviation of all the constructs. In terms of FinTech users' perception, respondents were generally positive in their evaluations and expressed moderate to high satisfaction levels and the intention to be loyal to platforms.

Table 3: Descriptive Statistics of Constructs

Construct	Mean	Standard Deviation (SD)	Interpretation
Service Quality	3.82	0.60	Moderate-High
Customer Satisfaction	3.79	0.62	Moderate-High
Customer Loyalty	3.76	0.61	Moderate-High

Correlation Analysis

Pearson Correlation Analysis was performed to identify relationships between service quality, customer satisfaction and loyalty. All the correlations are positive and significant; thus the higher the quality of service, the higher the satisfaction and loyalty; on the other hand, the satisfaction level is strongly linked to loyalty.

Table 4: Correlation Matrix

Variable	1	2	3
1. Service Quality	1		
2. Customer Satisfaction	0.68**	1	
3. Customer Loyalty	0.63**	0.71**	1

Note: p < 0.01 (two-tailed).

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Regression Analysis

Multiple regression was performed to measure the predictive effect of service quality on satisfaction and loyalty and the mediating effect of satisfaction. Service quality significantly predicts customer satisfaction, explaining 46% of the variance.

Table 5: Regression of Service Quality on Customer Satisfaction

Predictor	B	SE	β	t	p
Service Quality	0.72	0.05	0.68	14.40	<.001
Model Fit				F = 207.36, R² = 0.46	<.001

Table 6: Regression of Customer Satisfaction and Service Quality on Loyalty

Predictor	B	SE	β	t	p
Service Quality	0.21	0.06	0.19	3.50	<.001
Customer Satisfaction	0.55	0.05	0.56	11.00	<.001
Model Fit				F = 154.20, R² = 0.52	<.001

Structural Equation Modeling (SEM) Study

The mediating model was validated by using the SEM. The following indices of fit show a good fit of the model: CFI = 0.96, TLI = 0.94, RMSEA = 0.045, Chi2/df = 2,20. Standardized path coefficients are summarized as shown in Table 7. Lifestyle inclusion with customer satisfaction reveals that the effect of quality of service on customer loyalty reduces (beta = 0.19) and significant, meaning the person is partially mediated. The results prove the mediation relationship of customer satisfaction between quality of service and loyalty, which is in line with the findings of previous literature (Hassan et al., 2020).

Table 7: SEM Path Coefficients

Path	β	SE	p
Service Quality → Customer Satisfaction	0.68	0.05	<.001
Customer Satisfaction → Loyalty	0.56	0.05	<.001
Service Quality → Loyalty	0.19	0.06	<.001

Summary of Findings

1. Service quality has a significant effect on customer's satisfaction (b = 0.68, p < .001).
2. Customer satisfaction has a significant impact on loyalty b = 0.56, p < .001.
3. Service quality has a direct but weaker influence on loyalty with the inclusion of satisfaction (beta = 0.19, p < .001), which suggests that partial mediation.
4. Descriptive statistics reveal that respondents perceive the service quality favorably and this induces moderate to high levels of satisfaction and loyalty intention.

These findings highlight the critical role of customer satisfaction in translating high-quality FinTech services into long-term loyalty and retention.

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Conclusions

This research employed the customer satisfaction between the quality of FinTech services and customer loyalty to determine the mediating effect of customer satisfaction. The results indicate the quality of service is significant in the customer satisfaction that subsequently results in customer loyalty increase. Among the dimensions of service quality, such as reliability, responsiveness, assurance, empathy, and tangibles, reliability and assurance were found to be particularly relevant in increasing satisfaction and they conveyed the concerns of users about the correctness and security of digital financial services as well as trust. Satisfaction also depended on the responsiveness and empathy, which once again shows how the aspect of timely supporting and attention to their users plays a part in determining the satisfaction, yet; tangibles, such as the usability of the platform, and the interface design of the platform, impact on the overall perceptions of quality of service offered.

The hypothesis of the mediation role of customer satisfactions in the correlation between service quality and loyalty is supported by the mediation analysis because although high quality services has a direct impact on promoting loyalty, the satisfaction has a profound influence on the impact. The results indicate that technical effectiveness will be necessary to exceed the customer needs to offer long-term customer loyalty in FinTech. Rather, the providers need to develop favorable user experiences, ensure satisfaction in managing security and reliability perceptions, and offer user expectations on all dimensions of service quality. Moreover, age, education, occupation, and other demographic aspects might moderate the attitude of the users towards this tool, which means that specific service strategies should be designed to meet the needs of different customers.

In a nutshell, the paper has presented empirical data that proves that customer satisfaction is a key mediator whereby quality of service is transformed into customer loyalty. In the case of FinTech providers playing a role in Pakistan, it is essential to ensure that they are concerned with the quality of services and customer satisfaction to guarantee the long-term customer retention and to avoid the churn and build the competitive advantage in the new digital financial market.

Recommendations

1. FinTech platforms are supposed to emphasize proper and error-free deliveries of transactions and provide safe security measures as a means of instilling clauses and reminders in users who feel not secure of the surgeries it has done.
2. To increase customer satisfaction, the providers must have 24/7 customer support, recall systems, timely interval resolution of problems, and communication channels.
3. Customer perception of regulatory assurance, credibility, and reliability can be improved with regulatory compliance, open policies and trustworthy operations.
4. The tangibles, such as platform interface, accessibility and navigation, should be streamlined to develop a user-friendly experience and convenient user interaction, which is one of the elements of satisfaction and loyalty.
5. Engagement Strategies Customer empathy oriented approaches, such as personalised notifications, recommendations and servicing may be used to stimulate a greater level of emotional attachment and satisfaction.
6. The users should be taught about the digital financial services, security factors and features on the platform, which would contribute to the growth of confidence, satisfaction and affection towards their services.

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With the FinTech providers applying these suggestions they will be able to increase customer satisfaction, create customer loyalty and sustain the growth of the recently booming Pakistani digital financial sector.

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