



## Adoption of Mobile Banking Apps and their Behavioral Impacts on Millennials in Digital Age: Evidence from Developing Country Perspective

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### ABSTRACT

*This study examines the behavior of millennials generation towards benefits and services offered through mobile banking (m-Banking) applications. This study uses three different types of banking system to better understand the millennials generation views in term of customer's loyalty (CL), positive word of mouth (WOM). Whereas, relationship quality (RQ) plays a mediation role. The benefits and services provided by m-banking channel is considered as independent variable while customer's loyalty and positive WOM as dependent variables. Random sampling is employed to obtain data from Millennials generation, who are account holder of different conventional and Islamic banks in Pakistan. The findings of this study explored that graduate students from millennials generation have more preferred mobile banking applications as relatively compared to rest of two generation categories. Moreover, Islamic banks customers are more active to get benefits and services offered by their banks as compared to other two banking system exist in Pakistan. The overall results show significant and positive impact of m-banking applications on three categories of millennials generation. The study findings supported that benefits offered by m-banking positively relates to RQ, and RQ also positively related to positive WOM. Additionally, mediation effect of RQ was also supported*



## **Introduction**

During last few years, e-banking is considerably growing and financial transaction volume has increased portraying growth regarding service provision in e-banking of Pakistan (Hussain et al., 2017; Butt, 2021). In present era, facility of cell phones has increased usage of banking applications. Smart phones have attained an essential part in the life of an individual and in turn lead towards the emergence of Mobile Banking (m-Banking) services. M-Banking emerged as result of technological advancement and the increasing customers' expectations who demand innovation and easy access to their accounts within less time (Berraies et al., 2017).

Consumers exploit services of business via technological interface in terms of service mobile apps. In this way, they do not need to physically visit the location of the business and communicate with its employees (Leon, 2018). Additionally, banking sector has devoted efforts in improving strategies of m-Banking that can facilitate customers with latest benefits and more satisfaction. Banks have designed special applications for mobiles to boost m-Banking (Sampaio, Ladeira, & Santini, 2017). Banks have exploited the opportunity of m-Banking to strengthen bank-customer relationship, executing immediate interaction and receiving feedback from them (Berraies et al., 2017).

Barnes and Corbitt (2003) describe m-Banking as "channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant (PDA)". As a result of these applications, customers can have easy banking transactions and quicker access to their banks accounts within no time through mobile devices (Berraies et al., 2017). In spite of this, it is worthy to mention that number of users of online banking have not improved much than was expected (Munoz-Leiva et al., 2017). This is due to the rise in complaints by the users related to mobile applications such as service failures or problems. Furthermore, most of the repeated complaints comprise of confusing app, non-functional app, difficulty in understanding the app (Ahmad, 2024; Sampaio et al., 2017).

Prior researches in marketing suggest that satisfaction is the possible outcome of benefits offered by m-Banking (Shaikh & Karjaluo, 2015) that in turn results in trust, loyalty and positive WOM (Afshar, 2023; Sampaio et al., 2017). These benefits of app comprise of convenience, ease of use, control, interactivity, security, customization, and privacy etc. (Al alwan et al., 2016; Laukkanen, 2016; Koksall, 2016). Moreover literature shows that various dimensions of m-Banking service quality have impact on range of outcomes such as relationship quality (trust, satisfaction, commitment) (Arcand et al., 2017), E-satisfaction, E-trust, E-loyalty and E-WOM (Berraies et al., 2017; Trabelsi-Zoghalmi et al., 2018). These m-Banking service quality and applications include: sociality, aesthetics/design, enjoyment, privacy/security and practicality (Arcand et al., 2017) as well as information quality, reliability, ease of use, self-efficacy and attitude (Trabelsi-Zoghalmi et al., 2018; Leon, 2018).

People's lifestyle and dealings with business is tremendously changed due to these mobile apps. People complete their daily tasks of multitude nature through mobile apps for example, securing reservations, bank payments and deposits, checking-in for airline flights, ticketing information, tracking packages and timings for movie shows etc. Consumers are contented with these mobile apps via devices for the execution of their daily tasks (Leon, 2018). Juniper Research (2016) estimated that users of mobile banking apps will reach over 2bn at the end of 2021. Likewise, about 2 billion or more subscribers by 2030 were anticipated by Bill Gates and current consistent growing usage of these applications supports his prediction (Sampaio et al., 2017).

Changing behavior of consumers to deal with their assets as well as their acceptance of banking applications determines progress in m-Banking. The mobile apps will enable its users to get information about their accounts and perform transactions via mobile channels. Financial Brand reported that in 2015, about 6/10 trends were related to digital environment such as improved influence of Digital Disruptors, growing Digital and Social Selling, emphasis on Security and Authentication, Mobile-First Design, Mass Market Acceptance of Mobile Payments and Expedited Deployment of Digital Delivery (Sampaio et al., 2017). Consumer's behavior analysis regarding M-Banking applications and service quality (SQ) was evolved in a result of its increased attention in academic literature (Trabelsi-Zoghalmi et al., 2018; Arcand et al., 2017; Sampaio et al., 2017; Berraies et al., 2017). For instance, current studies have observed relationship quality (Arcand et al., 2017), loyalty (Thakur, 2014; Famiyeh et al., 2018; Baabdullah et al., 2019), Use behavior (Farah et al., 2018), relational outcomes i.e. retention, tolerance, word of mouth (Fernandes, & Pinto, 2019) and e-WOM (Trabelsi-Zoghalmi et al., 2018). In recent year, consumer's expectation level has increased about quality due to which organizations pay more attention to QM practices to fulfill their expectations promptly (Butt & Yazdani, 2023). The consumers benefit from the services provided through well designed mobile apps. In this way service organizations also get advantage from customer support and concern (Leon, 2018). Consequently, it is required for them to understand consumer's behavior regarding service mobile apps, especially the millennial generation (Leon, 2018). Therefore, focus of this article is to understand the behavior of millennial generation towards the benefits offered by mobile banking in Pakistani context. Millennials (born 1982-2004) are the most digitally educated generation including (Hall et al., 2017).

However, there is no agreement on the exact description of the term Millennials and therefore, range of birth years varies somewhat amongst studies (Hur et al., 2017). Generation Y mainly shows interest in m-Banking apps because they belong to digital environment and they are also intensive users of mobile phones and technology. Moreover, Gen Y gives much importance to m-Banking apps for communication with their respective banks. They use m-Banking apps as an important medium to elevate their self-respect and societal status (Berraies et al., 2017). While Gen Z has more knowledge of technology, more awareness about brands, are more communicative and individualistic as compared to Gen Y (Moore, 2012). Hence, technology related research studies view millennial generation as homogeneous group (Leon, 2018).

There is an affinity to stereotype and generalize this generation. Millennials are frequently described as intense technology users, contented with technology and constantly linked with it through some device. Furthermore, Millennials are perceived confident and possess the ability to search and utilize the readily accessible online information. It is believed that Millennials experience with technology is significant (Leon, 2018). They perceive m-Banking apps a source to achieve high social identity (Berraies et al., 2017).

State Bank of Pakistan (SBP) reported more than 5 million registered users of mobile banking during the fiscal year (2018-2019) and this number is growing. Additionally, about 23 banks are facilitating their customers with mobile phone banking services. Through utilization of these mobile banking apps, about 11.9 million transactions are reported during the quarter of Jan-Mar 2019 (Rahman, 2019). According to group special mobile association (GSMA) report, around 17m new subscribers of mobile banking are expected by the year 2020 (Kanwal, 2017). Hence all over the world, Pakistan has become one of the top 10 countries that are predicted to achieve 72% growth rate in securing fresh mobile subscribers by the year 2020 (Saeedi, 2017). Hence, Pakistan can get advantage from this m-banking (Farah et al., 2018). Moreover, there is an immense value to conduct research on m-banking for the under developed country like Pakistan (Farah et al., 2018) because it can promote financial inclusion, improve banking system and enhance economic

progress (Mullan et al., 2017). Furthermore, post adoption behavior of m-Banking requires investigation in developing countries because it has not attained much attention in previous research (Bondeson, 2018).

The significance of the current research is fourfold. It proposes a research model that explores the impact of advantages provided by m-banking on RQ of millennial generation. The study also examines influence of RQ on variables like positive WOM. Hence, this study offers insights that bankers must consider in order to build the customers favorable response in return to the benefits offered by mobile banking. Additionally, bank operators can benefit from this study to detect those features of m- banking services that need upgrading and enhancement. In this way, they may propose beneficial service experience especially for millennials and create competitive advantage. Finally, important findings of the current study present implications for bankers concerning mobile technology implementation by improving relationship quality with customers via various useful offerings and generating favorable responses. This is due to the appearance of internet that banks had to reconsider their strategies related to information technology (IT). Because banks may lose customers if they do not adapt to meet the changing market demands and fail to take timely actions (Zaurez & Hussain, 2025; Dash et al., 2011).

Based upove the review of previous literature, this research aims at exploring the influence of benefits offered by mobile apps on relational/behavioral responses of Millennial generation e.g. relationship quality, customer loyalty and positive WOM. Hence, current study contributes to extend literature regarding benefits offered by mobile banking and outcomes of relationship quality that includes studies on customer loyalty and positive word of mouth in this context. Additionally, empirical studies addressing this subject matter in the Pakistani banking sector context to explore the influence of m-Banking Apps on millennials are scant. However, this study takes three different types of banking sectors and three millennial generations such as, undergraduate, graduate and post-graduate level. This study will enable banking mangers to understand the behavior of consumers particularly Millennials regarding m-banking. In this way, they will be able to address large number of customers“ demand and boost their overall profits.

This paper comprises of a) literature review b) theoretical framework c) data and methodology d) data analysis e) conclusion f) references

## **Literature Review**

There are several keywords and concepts included in the paper, but literature review is segregated to two major portions based on variables used in the theoretical framework of this research. The first part explains the importance and growth of Mobile banking channel in Pakistan, second try to examine the behavior and attitude of the Millennials towards benefits offered by Mobile banking channel followed by relationship quality of Bank and its effect on Customer loyalty and Positive WOM.

M-banking channel is the latest technology used by the public in their daily lives as well as in purchasing and performing different financial transactions. Due to information and communication technology, ATMs, internet banking largely replaced the traditional banking transaction system. Specifically, the extensive use of smartphones increased the demand for mobile banking services in all banks. Mobile banking is one of the quickest, convenient, and easy ways for financial transactions at anytime, anywhere in the world. It provides unlimited benefits to the user while other modes of transaction limited the user in one way or another. In contrast, most of the account holders have internet connectivity issues which somehow restrict the user to frequently use this banking channel in Pakistan Choudrie et al., (2018). Online-banking consists of entire services

entrenched in implanting an online-system. This would remain a fundamental conception in online-banking sector due to wider advancement in the domain of information technology (Butt & Umair, 2023).

Due to the bombardment of digital technology and changes in consumer financial transaction patterns, Online and Mobile banking channels are considered the most effective channels among bank users in the last decade. In Pakistan, banking transactions channels involves Paper-based i.e. cash, cheques, Pay order, demand drafts, etc. and digital channels i.e. ATMs, RTOBs, Internet Banking, Mobile Phone Banking, Call Centers/ IVR Banking for all types of financial transactions. According to the latest SBP's Quarterly Payment System Review, digital banking channels are the fastest channel which is substituting transactions which were previously paper-based in Pakistani banks (Business Recorder, 2018).

A mobile banking channel is defined as “a channel whereby the consumer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant”. In other words, it is a “subset of electronic banking and an extension of internet banking with its unique characteristics” (Laukkanen, 2008). Nowadays, m-banking Apps are considered as a novel banking channel. M-banking offered by many conventional and Islamic banks has now become the most important service facility for the banking sector and cellular service companies (Akturan & Tezcan, 2012).

Moreover, in Pakistan, m-banking is a very imperative transaction mode for the banking sector because more than one million people are coming online through their phones every month. Thus, there is huge potential for banks in this type of banking channel. Mobile banking provides an opportunity to the banks to expand their business in all areas and can provide maximum value-added service in a fast, convenient and easy way which is otherwise very difficult through physical branches in remote areas of Pakistan (Farah et al., 2018).

The role of financial transactions through mobile banking channels varies from generation to generation. Recently, there have been several studies that predict customers' intentions, attitudes, and behavior toward mobile banking (Ahmad et al., 2024; Baabdullaha et al., 2019). But this study tries to determine specific age group behavior i.e. Millennials towards benefits offered by mobile banking. Several birth years ranges have been discussed to classify the Millennial generation for example mid-1970s to 2004 (Masnick, 2012), 1980–1996 (PewResearchCenter, 2011), 1982–2004 (Howe and Strauss, 2009), and 1980 -2004 (Weinbaum, 2016). In this research study, the millennial generation is categorized by birth years from 1980 to 1996 (PewResearchCenter, 2011) because this generation has more spending power than any other generation in Pakistan (Fatima, 2018).

Prensky (2001) called this generation “digital natives” who are “native speakers” of the digital language of computers, the internet, and video games. They are very much familiar with technology and use it extensively. They are always engaged in online services such as online shopping, online banking, online cooking, online health tips, etc. (Leon, 2018).

Bondeson (2018) defined characteristics of the millennial as Confident and self-reliant, Technology savvy and connected, closely connected to family and social organizations, Service-oriented, Effective at multitasking, and Expectant at immediate access to information. The major reason for using online service among millennials includes convenience, access to the service regardless of time and place, security, privacy, and savings in time and effort (Laukkanen, 2007). Relationship quality is derived from relationship marketing where the focus is on developing, maintaining, and sustaining relationships with customers (Fernandes & Pinto, 2019). Dwyer and Oh (1987) were the first to describe the term “relationship quality”. “Relationship quality can be

defined as “a meta construct composed of several key components reflecting the overall nature of relationships between companies and consumers” (Brun et al., 2014). Moreover, Relationship Quality is explained as the overall assessment of the strength of a relationship (Garbarino and Johnson, 1999).

The components of relationship quality vary from one study to another study as several researchers examined satisfaction, commitment, and trust as meta construct under this term and logically these three terms are interrelated with each other especially in the context of branding and brand management while in the banking literature; RQ is conceptualized by taking 2 main factors including trust and satisfaction (Fernandes & Pinto, 2019). “Satisfaction has been defined as not only a cognitive evaluation but also as a consumer's affective state resulting from an overall appraisal of all aspects of a relationship with a firm over time” (Brun et al., 2014). while “trust refers to the level of customer confidence in a firm's integrity and reliability associated with honesty and expertise, and benevolence, which entails a belief in the other party's favorable and positive intentions” (Brun et al., 2014).

Satisfaction and trust both are considered important elements in building a quality relationship with a customer in financial services. It brings confidence among customers about the product or service offered by the provider. Moreover, elements of RQ (satisfaction and trust) help the company to develop or change pricing strategy as per their requirements. Strong confidence in product or service leads towards repeat purchase and commitment of the customer towards product or service. According to Wong et al. (2007), customer loyalty in financial services is based on relationship quality established by the provider.

It is evident in marketing research that a good relationship with a customer increases the profitability of the company. The major outcomes of high relationship quality are CL and positive WOM (Bondeson, 2018). Loyalty enhances revenue of the company by maintaining the existing one and positive WOM communication helps in attracting new clients. Brun et al. (2014) suggests that more RQ research is required in the service sector and secondly further research can take the whole Millennials generation. Moreover, Farah et al. (2018) recommended studying at different stages of the consumer life cycle to evaluate user's m-banking at various time intervals in Pakistan. To the best of research knowledge, no research focused on consumer generation age ranging from 1980 to 1996 towards benefits offered by M-Banking and its outcome due to mediation of „relationship quality“ (RQ). Therefore, this study tries to determine response of Millennials towards relationship quality by getting value-added benefits through mobile banking. Based upon review of literature, following hypotheses are formulated:

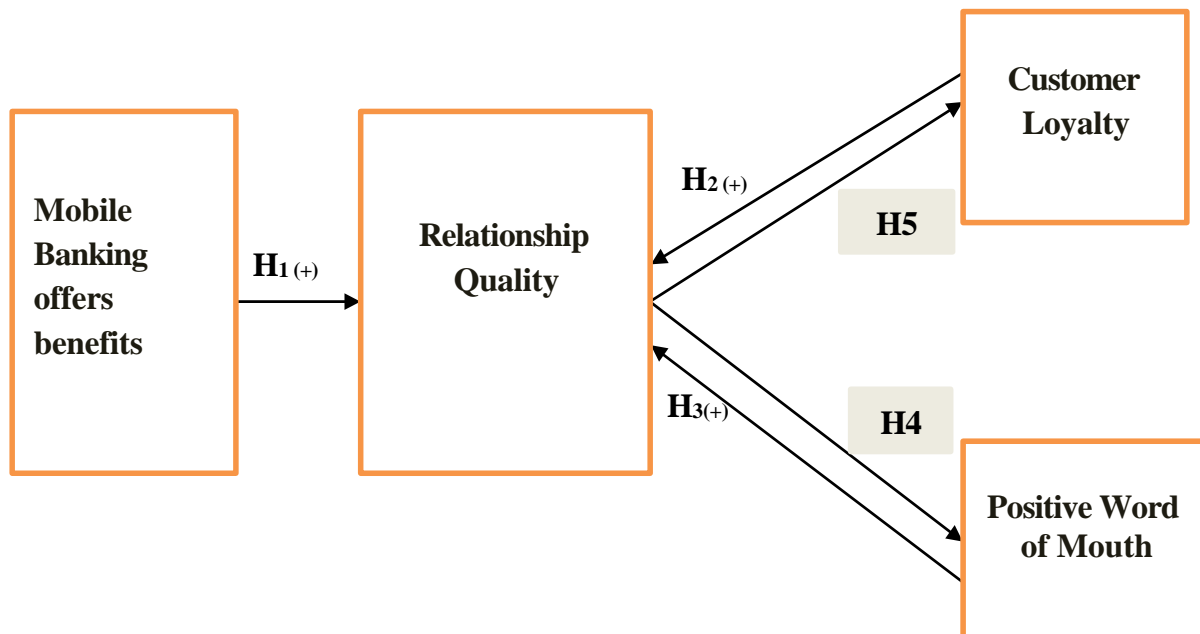
***H1: The benefits offered by mobile banking (MB) are positively related to relationship quality (RQ)***

***H2: Relationship quality (RQ) is positively related to customer loyalty (CL).***

***H3: Relationship quality (RQ) is positively related to positive word of mouth (WOM).***

***H4: Relationship quality (RQ) mediates the relationship between benefits offered by mobile banking (MB) and positive word of mouth (WOM).***

***H5: Relationship quality (RQ) mediates the relationship between benefits offered by mobile banking (MB) and customer loyalty (CL).***



**Fig:** Proposed Framework

## Methodology

This study employs quantitative approach which derives research outcomes/conclusions utilizing statistical methods and analyzing the study data (Akhtar et al., 2024; Umair & Butt, 2024). This study examines at what extent the millennial generation use the mobile phone banking applications to fulfill their desire needs and wants from the services provide of their banks in Pakistan. This study is based on primary data source through structure questionnaires in order to obtain the exact facts and figures regarding mobile phone banking channel among millennials. This study considers the people born in between 1980 to 1996 as source of millennials. However, undergraduate, graduate and postgraduate people like (job holders in government banks, private banks, personal businesses, students, house wives, and others etc.) consider as another source of millennials. While, mobile phone banking offers further as relationship quality (trust, satisfaction), customers loyalty (CL) and positive WOM. Three different banking types such as (conventional banking, Islamic banking and standalone of conventional bank branches) are used to examine the association between mobile phone banking apps and their impact on millennials in Pakistan. In order to obtain data, five hundred and fifty (550) questionnaires are distributed among target people, whereas, only ten (10) questionnaires show incomplete and remaining considered for data analysis with response rate as ninety eight (98%) percent. The partial least squares (PLS) method is used for data analysis regarding testing the proposed hypotheses of this study. This method helps and guides the researchers at what extend the relationship among independent, dependent and instrumental variables exist (Fornell and Lacker, 1981). The reliability and validity of data and its sources are determined through t-statistics and standard errors. Moreover, R square and path loading explained the variance amount in the model (Chin, 1988).

## Results and Analysis

Table 1 shows that study sample comprised of five hundred and forty (540) in total, where three hundred and thirty five (335) males and two hundred and five females (205). Majority of study respondents (325) are married. Most of respondents (324) were graduate. Majority of them (237)

fall under Rs 51,000– 100,000 income bracket. Most of them were (207) employed in private sector. Majority of respondents (351) were private bank account holder.

**Table 1: Respondent Profiles**

<b>Details</b>	<b>Rate of recurrence</b>	<b>Proportion</b>	<b>Aggregate</b>
<b>Gender</b>			540
(year born 1980-1996)			
Males	335	62	
Females	205	38	
<b>Age (Years)</b>			540
20-25	45	8.33	
26-30	143	26.48	
31-35	203	37.6	
36-40	87	16.11	
41-45	62	11.48	
<b>Marital Status</b>			540
Single	182	33.72	
Married	325	60.19	
Divorced/separated/widowed	33	6.09	
<b>Education</b>			540
Undergraduate Degree	167	30.93	
Graduate Degree	324	60	
PhD Degree	49	9.07	
<b>Income (Pakistani Rupees)</b>			540
50,000 or Less	84	15.55	
51,000– 100,000	237	43.88	
101,000 – 150,000	107	19.81	
151,000– 200,000	57	10.55	
201,000–250,000	34	6.29	
250,000 or More	21	3.88	
<b>Occupation</b>			540
Government Job	79	14.63	
Private job	207	38.33	
Personal Business	87	16.11	
Students	68	12.59	
House Wife	53	9.81	
Others	46	8.51	
<b>Bank Account Holder</b>			540
Government Banks	189	35	
Private Banks	351	65	

Table 2 shows negligible proportion just only 3 percent respondents have not heard about mobile banking apps and 9 percent know about at some extent, while majority 88 percent people have knowledge about it. Comparing knowledge of customers of different banks, a larger proportion (92%) of Islamic banking customers aware about mobile banking apps than only (2%) and (6%) customers didn't know or know to small level respectively. Finally, 89 percent of SAB customers heard about mobile banking apps, while 9 percent heard on small scale and 2 percent didn't heard at all.

**Table 2: Familiarity with the term Mobile Banking Apps**

Type of bank	Yes	No	Heard but don't know in detail
Conventional bank customers	88%	3%	9%
Islamic bank customers	92%	2%	6%
Stand Alone Branches (SAB) customers	89%	2%	9%

The table 3 indicates the objective/purpose behind using m-service provision by banks. Statistics indicated that majority of males (41%) used for salary account followed by receiving money from other country. While, in case of females majority (32%) had objecting of availing opportunities/benefits offered by their bank, which followed salary account (23%).

**Table 3: Purpose to use Mobile Banking Services**

	For Lockers or Saving	Money received from abroad	Employer opened/salary bank account	To avail opportunities provided by bank	Other
<b>Males</b>	18%	19%	41%	18%	4%
<b>Females</b>	14%	22%	23%	32%	9%

There are three types of educated customers for instance undergraduate, graduate and post-graduate for three different banks types. The table 4 indicates that post-graduate people (86%) are more comfortable as relatively compared to other two categories regarding mobile banking applications for safe transmission mechanism in conventional banking system. Whereas, graduate people show their comfortable level higher as compared to rest of categories between Islamic banks and SAB respectively. It shows that graduate people used more mobile phone banking channel as compare to other categories.

**Table 4: Concerns of safe transmission mechanism for customers**

Type of bank	Undergraduate	Graduate	Postgraduate
Conventional bank	70%	83%	86%
Islamic bank	93%	96%	94%
SAB	85%	88%	82%

The table 5 describes a nexus between mobile banking applications for transactions and customers satisfaction among three categories. The Islamic banking customers are more comfortable in all three categories such as undergraduate, graduate, and postgraduate with leading positions of percentage (90%, 91% and 95%) among others. Whereas, SAB and conventional bank customers are on second and third positions respectively in all three categories. These percentages indicate that Islamic banks customers are more satisfied to do transactions through mobile banking apps.

**Table 5: Mobile banking applications for transactions**

Type of bank	Undergraduate	Graduate	Postgraduate
<b>Conventional bank</b>	79%	82%	81%
<b>Islamic bank</b>	90%	91%	95%
<b>SAB</b>	88%	89%	87%

The table 6 elaborates best interest facilities through mobile banking channel through these banks types. The undergraduate (93%) and graduate (95%) people from SAB are enjoying the facilities at most respectively, while postgraduate (93%) people use Islamic banking facilities more as

compared to rest of other categories. The leading individual categories belong to Islamic banks and SAB customer from all three types for instance; undergraduate, graduate, and postgraduate level.

**Table 6: Best interest facilities through mobile banking channel**

Type of bank	Undergraduate	Graduate	Postgraduate
Conventional bank	74%	80%	83%
Islamic bank	92%	90%	93%
SAB	93%	95%	91%

The table 7 expresses at what extend undergraduate, graduate, and postgraduate people recommend mobile banking services to other customers of these banks. The findings show that SAB is leading in all three categories and their customers are happy to recommend their bank mobile banking services to other people in order to get more benefits from rest of customers. While, Islamic banking and conventional banking customers are on second and third position in all three categories to recommend their mobile banking services to other customers. These findings show that SAB customers are comfortable and enjoying mobile banking channels to fulfill their needs and wants as compare to rest of two categories.

**Table 7: Recommendation of mobile banking services to other people**

Type of bank	Undergraduate	Graduate	Postgraduate
Conventional bank	69%	70%	79%
Islamic bank	82%	84%	86%
SAB	83%	90%	88%

The table 8 presents the correlation between study variables. Pearson correlation test results indicated positive correlation between study variables. A positive value shows, increase in one variable result in corresponding increase in second variable or vice versa. Values of coefficient of correlation fall between minus 1 to plus 1 (Butt & Yazdani, 2023). The highest correlation (0.707) exists between mobile banking and millennials generation. This high positive correlation between mobile banking and millennials generation (MG) indicate that MG preferred to use mobile phone banking applications to fulfill their entire desires. Remaining correlations ranged from (0.542 to 0.698) among rest of variables. The above correlation table clearly shows that the proposed model does not face the problem of multicollinearity among all variables.

**Table 8: Correlation Matrix**

Construct	Millennials generation	Mobile Banking	Relationship Quality	Customer's Loyalty	Positive Words of Mouth
Millennials generation	1				
Mobile Banking	0.707*	1			
Relationship Quality	0.698*	0.693*	1		
Customer's Loyalty	0.623**	0.542**	0.558**	1	
Positive Words of Mouth	0.642**	0.572**	0.597**	0.563**	1

The table 9 illustrates the confirmatory of factor analysis among variables. However, values of all the variables are statistically significant with reference to T- test, which indicate that model is best fitted. Several studies such as (Fornell and Lacker, 1981; Chin, 1988) highlight that 0.5 score elaborate the presence and reliability of variables in PLS, whereas, 0.7 score consider as an efficient and recommend value regarding reliability among variables. Moreover, reliability value of this study lies between (0.854 – 0.914), the reliability values clearly indicate that findings and model of this study reliable and acceptable. As, values of all factors exceeded 0.70 of alpha indicated adequate internal consistency of scale (Umair et al., 2024). Nunnaly (1978) recommends this threshold (above 0.70) an indication of acceptable internal consistency or reliability of a scale( Butt & Yazdani, 2023; Umair et al., 2023; Ahmed et al., 2024). This study shows average variance extracted (AVE) values lie between (0.608 – 0.713). These values are acceptable in all forms as 0.5 score is minimum consider value regarding variance extracted measurement. However, the discriminant validity identify the rate of correlations and it must be higher than other measures of constructs among data sources (Chin, 1988).

**Table 9: CFA Statistics**

Measure	Factor loads	t-statistics	Cronbach 's α	CR	AVE
Millennials generation	0.846	39.625	0.862	0.914	0.713
Mobile Banking Relationship Quality	0.825	37.893	0.851	0.894	0.672
Customer Loyalty	0.846	34.874	0.841	0.854	0.646
Positive Words of Mouth	0.803	29.562	0.825	0.869	0.608
	0.853	36.693	0.854	0.885	0.663

The table 10 depicts hypotheses test results which indicated that all study hypotheses were supported as effect or coefficients were significant. The hypotheses were supported for direct impact of MB on RQ, RQ on CL, RQ on positive WOM. Likewise, mediating hypotheses H4 and H5 were also supported.

**Table 10: Hypotheses Test Results**

Hypotheses	Relationships Tested	Effect Size/ Coefficients	T	Test Results
H1:	MB → RQ	.3292	5.7415	Supported
H2:	RQ → CL	.2984	5.0464	Supported
H3:	RQ → positive WOM	.2075	3.1241	Supported
H4:	RQ mediates MB and positive WOM relation	.2131	3.2153	Supported
H5:	RQ mediates MB and CL relation	.2363	4.3172	Supported

## **Discussions and Conclusion**

Mobile apps are considered the major component of customer experience. They facilitate transactions, communication and information faster for the customers. The success of services provided by the organizations is depending on mobile apps. This study has used primary data set and collected data from three categories of customers such as undergraduate, graduate and postgraduate people through structure questionnaires. This study adopted partial least square method for data analysis. The relationship quality plays a mediating role between independent and dependent variables.

The findings of correlation matrix show all the variables are inter-correlated with each other with high rank and model of this study did not suffer multicollinearity problem. Whereas, results regarding confirmatory factor analysis describe a validity and reliability among variables and model of this study is best fitted. The entire hypotheses are accepted with mediating relationship among variables. The findings of our study are similar to Shabbir (2020) and Shabbir and Rehman (2015) studies. Shabbir (2020) investigated association between consumer's satisfaction/loyalty among three types of banking system operated in Pakistan. However, in all studies Islamic banking services and benefits are more preferred by their customer's as relatively compared to other types of banking systems operate in Pakistan. The findings remarks of Everard and Galleta (2006) regarding millennials generation have positive effect on consumer behaviors, however, findings of this study is also same as millennials generations get more incentives from mobile banking applications.

The study results conclude that SAB and Islamic banking customers more preferred mobile banking applications and their usage in the current era. Whereas, conventional bank customers are less preferred mobile banking channels as relatively compared to other both categories customers. The conventional banks have higher customers in numbers and volume of investment as well as supported by government, public sector institutions, multinational companies, national organizations and medium & small level private sectors companies. These are the core reasons behind this less prefer mobile banking apps usage by conventional bank customers. Whereas, Islamic banks and SAB have taken their initiative in Pakistan just two decades ago. So, they need more customers and higher volume of investment for their institutions, for this purpose they offered multiple and easy options to attract the customer investment.

## **Study Implications and Future Directions**

This is the first empirical study that helps to understand the behavior of millennials generation of Pakistan towards benefits offered by M- banking. The major implication of this study is to help banks to capture their right target market (M- generation) for product and service through mobile banking because this generation has more spending power than any other generation in Pakistan. This study is subject to few limitations as data was collected only from Banking sector of a single developing country Pakistan. Future research should address this gap and collect data from advanced countries of the world. Secondly, this study was conducted considering the respondents from mellinial generations. Futrure researchers may investigate the behavior of generation Z as well. This study only considered relational quality as mediating variable and future researchers should consider moderating and mediation factors in digital era in emerging markets to test the framework.

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