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Enigma Unveiled: Decoding Trust and Relationship Dynamics in the Mobile Banking Sector of an Emerging Economy

Moin Ahmad Moon (Corresponding author)
Air University School of Management, Air University Multan Campus, Pakistan
Email: moin@aumc.edu.pk

Jibran Majeed
Air University School of Management, Air University Multan Campus, Pakistan
Email: jibran_majeed71@yahoo.com

Saman Attiq
NUST Business School, National University of Science and Technology, Islamabad Pakistan
Email: saman.attiq@nbs.nust.edu.pk

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Abstract

Mobile banking, an innovative branchless banking system, is burgeoning in Pakistan. Grounded in expectation confirmation theory, this study empirically examines the interplay of trust beliefs and trustworthiness with relationship quality to generate user intentions for mobile banking. We collected data via a self-administered survey from systematically selected 346 young Generation Z (18-30) actual banking users of Pakistan. We performed structural equation modelling (SEM) via the maximum likelihood method to test the hypotheses with AMOS 25. Trust beliefs of shared value, communication, quality assurance, and integrity significantly influence cognitive and affective trust. Trustworthiness and satisfaction mediated the relationship between trust beliefs and users' intentions to use the mobile banking system in Pakistan. Policymakers and m-banking marketers should ensure quality and communicate the procedural manifestations of m-banking apps and platforms to increase trustworthiness and satisfaction with m-banking services in Pakistan. The study is a rare effort that investigates mechanisms of relationship quality to better understand consumer behavioral intentions and it identifies influential factors beneficial for financial institutions involved in offering mobile banking services.

Keywords: Trustworthiness, mobile banking, behavioral intentions, trust, satisfaction, Pakistan, cognitive trust, affective trust, generation Z.

1. Introduction

Mobile banking refers to the use of mobile devices through which customers access their banking accounts, to obtain general information about bank products and conduct financial transactions (Tran, 2024; Zhang, Lu & Kizildag, 2018; Glavee-Geo, Shaikh & Karjaluoto, 2017; Moon, Khalid & Awan, 2019). Mobile banking is a form of virtual channel that allows customers to acquire banking services anytime and anywhere in a convenient manner. It provides consumers with the facility of banking with ease and convenience despite considering the economic status of the consumer (KA & Subramanian, 2024; Curry, 2024). There are around 1.8 billion consumers who use mobile banking mobile banking services and this number is likely to increase by 15% by 2025 (Tran, 2024; Inan et al., 2023). Therefore, understanding the consumer mindset of using mobile banking services is imperative for researchers, policymakers, and marketers of mobile banking.

Mobile banking has brought innovative and technological changes in individual financial services and has designed new ways for consumers to interact with other societal constituents (Moon, Khalid & Awan, 2019; Ho, Wu, Lee & Pham, 2020). This innovative change needs the consumer's intention towards its usage (KA & Subramanian, 2024). Mobile banking services are available in 93 countries globally, with 85% of these countries having financial institutions numbering less than 20%, according to World Bank data on global financial inclusion. In 2022, approximately 14 billion transactions were conducted globally, averaging 33 million transactions per day, underscoring the significance of mobile banking (Curry, 2024). Mobile banking has improved the quality and efficiency levels of banking services (Moon, Khalid & Awan, 2019; Ho, Wu, Lee & Pham, 2020; KA & Subramanian, 2024). While advanced countries demonstrate higher acceptance and growth rates in mobile banking compared to developing nations like Pakistan, the latter is actively adopting this new form of banking (Curry, 2024; Zhou, Rau & Jie, 2024; Glavee-Geo, Shaikh & Karjaluoto, 2017). Moreover, it has benefited consumers as far as time optimization, quick information, fast-track connectivity, luxurious convenience, and communication are concerned (Glavee-Geo, Shaikh & Karjaluoto, 2017). Mobile banking users can enjoy the facility of accessing account balances, transferring funds through mobile devices, pay bills and now there is no need to visit the bank or use computer-based internet banking (Moon, Khalid & Awan, 2019; Zhou, Rau & Jie, 2024). Telecommunication service providers collaborate with banks to offer mobile banking services, addressing infrastructure challenges such as low branch numbers, inaccessible ATMs, and limited internet facilities (KA & Subramanian, 2024). In Pakistan, where issues like a lack of branches, inaccessible ATMs, and limited internet access create a gap, mobile banking is vital (Moon & Abbas, 2024; Ali, Hameed, Moin & Khan, 2023; Curry, 2024; Zhou, Rau & Jie, 2024). Furthermore, people are enjoying mobile devices such as smartphones and tablets, however, the m-banking adoption does not correspond to the

mobile penetration ratios. Therefore, consumer researchers need to identify factors and processes that may aid in increasing m-banking.

With 71% of people connected through mobile phones, conventional banking only attracts 12 to 15% of the population (Attiq, Hasni & Zhang, 2022). This leaves 85 to 88% of people outside the financial network, primarily dealing in cash due to hindrances like illiteracy, lack of CNIC, and residing in remote areas, presenting an opportunity for mobile banking in Pakistan (Moon, Khalid & Awan, 2019; Glavee-Geo, Shaikh & Karjaluoto, 2017; Ali, Hameed, Moin & Khan, 2023; Din, Attiq & Moon, 2022). Introduced in 2009, the State Bank of Pakistan and the Pakistan Telecommunication Authority signed an MOU in 2012 to enhance the regulatory framework and improve mobile banking through technological advancements (Moon & Abbas, 2024). Over the past five years, cellular mobile penetration has increased from 61% to 77% (Pakitan Telecommunication Authority, 2024). Presently, it stands at 69.1% in 2022-23, with 188.7 million cellular subscribers in Pakistan (Amin, 2023; Farooq & Moon, 2020). Conventional banking is used by only 12% of the total population, highlighting a significant opportunity for promoting mobile banking. Given the growing interest among researchers and practitioners in the mobile banking sector, there is a need to understand the factors influencing its adoption.

Researchers and practitioners have increasingly focused on identifying factors influencing mobile banking adoption, given its widespread acceptance in recent decades (Tran, 2024; Moon, Khalid & Awan, 2019; KA & Subramanian, 2024). Previous studies utilized frameworks like the unified theory of acceptance and use of technology, innovation diffusion, and technology acceptance models (Luu Thi Thuy et al., 2024; de Oliveira Santini et al., 2023). Perceived usefulness and perceived ease of use have been identified as key elements affecting individual acceptance in past research (Wang, Lin & Chen, 2023). However, prior research has predominantly emphasized the technological aspects of mobile banking, neglecting factors related to customer behavioral intentions (Ong & Chong, 2023). Trust is a critical factor influencing the limited adoption of mobile banking, and building trust and satisfaction is crucial for shaping intentions in this domain (Farooq & Moon, 2020; Zhang, Zhu, & Liu, 2012). Our research focuses on behavioral intention and trusts in mobile banking in Pakistan, addressing a gap in the existing literature that fails to explore the factors creating intention and trust in customers' minds.

Relationship marketing, employed by various sectors (Farooq & Moon, 2020; Berry, 1995; Ong & Chong, 2023; Din, Attiq & Moon, 2022), aims to build enduring customer connections using different marketing strategies (Khan et al., 2023). Relationship quality involves four key components: overall quality, trust, commitment, and satisfaction (KA & Subramanian, 2024; Glavee-Geo, Shaikh & Karjaluoto, 2017). This study utilizes satisfaction and trust to measure their influence on customer behavioral intentions (Luu Thi Thuy et al., 2024; Fawcett et al., 2017; Kharouf, Lund & Sekhon, 2014; Caldwell & Hayes, 2007). Additionally, we incorporate Caldwell and Clapham, (2003) mediating lens

to examine the relationship between antecedents of trust, mediated through trustworthiness in the mobile banking sector (Farooq & Moon, 2020; Wang, Lin & Chen, 2023).

Despite acknowledging the importance and growth potential of the mobile banking sector, existing research lacks a theoretical understanding of the impact of trust and satisfaction on behavioral intentions and adoption (Moon & Abbas, 2024; Khan et al., 2023; Glavee-Geo, Shaikh & Karjaluoto, 2017; Farooq & Moon, 2020; Wang, Lin & Chen, 2023). Therefore, this research aims to (1) investigate the relationship between trusting beliefs and trustworthiness (2) investigate the role of the trustworthiness mediating lens between trust dimensions and trusting beliefs (3) investigate the relationship between satisfaction and behavioral intention. This study addresses this gap by exploring a new theoretical framework incorporating cognitive and affective trust, satisfaction, and Caldwell's mediating lens to understand consumer mobile banking usage intentions.

The study offers insights to researchers and practitioners by introducing a fresh perspective of employing novel models to encapsulate mobile banking intentions instead of stereotypical technology acceptance and adoption models. Furthermore, unlike previous research, this study adds value to the understanding of mobile banking intentions by employing relationship quality components and cognitive and affective trust. Additionally, this study attempts to differentiate the characteristics of trustworthiness, trust beliefs of cognitive and affective dimensions of trust, grossly overlooked in the previous research in the formation of mobile banking intentions.

2. Conceptual Development

Relationship marketing theory (Berry, 1995) and the trustworthiness mediating lens (Caldwell & Clapham, 2003) are underpinning frameworks in this research. Relationship marketing involves activities aimed at enhancing, promoting, and developing long-term relations with customers, ultimately creating customer intention (Kharouf, Lund & Sekhon, 2014; Caldwell & Hayes, 2007). Relationship quality is a construct comprising four components: trust, satisfaction, service quality and commitment (Morgan & Hunt, 1994; Fawcett et al., 2017). Based on expectation confirmation theory (Oliver, 1999), we specifically incorporate trust and satisfaction as components of relationship quality to measure customer intention in the m-banking sector of Pakistan.

The expectation confirmation theory (Bhattacherjee, 2001; Oliver, 1999) states that consumers compare the perceived performance of a product or service to the perceived initial expectations that they had before experiencing it. This comparison determines the level of satisfaction with the product or service and accordingly leads to the repurchase intentions (Bhattacherjee, 2001; Colquitt & Rodell, 2011). Accordingly, in mobile banking services, the expectation confirmation theory explains the expected relationship quality and level of trustworthiness of a consumer and provides a mechanism to build mobile banking intentions by comparing it to the experience relationship quality and trustworthiness

performance (Moon & Abbas, 2024). Consequently, we may argue that the confirmation of a mobile banking service provider to be high on relationship quality and trustworthiness in the sense of privacy, security and integrity encourages consumers to use, continue using, recommend and engage in additional mobile banking activities.

Furthermore, Caldwell and Clapham's mediating lens suggests that the decision to trust has to be filtered through the trustworthiness mediating lens (Caldwell & Clapham, 2003; Caldwell & Hayes, 2007). The primary obstacle to the widespread acceptance of branchless banking is the lack of customer trust (Lee et al., 2024). Mobile banking struggles to garner trust and satisfaction from customers (Zhang, Zhu, & Liu, 2012). Trust is equally crucial in branchless banking for user adoption and transaction conduct (Zhang, Lu & Kizildag, 2018). It serves as a key determinant of satisfaction in mobile banking and is essential for organizational success and the customer-service organization relationship (Caldwell & Clapham, 2003). Organizations must establish trustworthiness to instil trust in customers' minds. Existing literature often neglects the role of trustworthiness, creating a need to understand its role in the development of mobile banking trust. Previous research indicates a lack of understanding regarding the role of trustworthiness in developing trust in the mobile banking sector. Thus, we incorporate Caldwell and Clapham's (2003) trustworthiness mediating lens into our framework to comprehend the role of trustworthiness in building trust in the minds of service users.

Previous research outlined various characteristics of a service provider influencing users' perceptions of trustworthiness and trust (Moon & Abbas, 2024). Benevolence, ability, and integrity are identified as key drivers of trustworthiness (Lee et al., 2024). Trustworthiness encompasses six dimensions: financial compliance, legal compliance, honest communication, interactional courtesy, quality assurance, and task competence (Caldwell & Clapham, 2003). Ennew and Sekhon (2007) pinpoint five determinants: expertise and competence, shared values and concern, integrity and consistency, communication, and benevolence. In the context of Internet banking, Yu, Balaji, and Khong (2015) highlight integrity, benevolence, competence, and shared values as determinants of trustworthiness and trust. Considering the absence of a definitive rule for selecting determinants, our research model incorporates competence, benevolence, shared values, integrity, communication, and quality assurance as crucial factors in determining trustworthiness and trust (Yu, Balaji & Khong, 2015). Integrating the trustworthiness mediating lens with the relationship quality components of trust and satisfaction, we formulate a conceptual framework illustrated in Figure 1. The model aims to investigate the relationship between determinants of trustworthiness and trust. Additionally, we explore how the relationship quality components of trust and satisfaction influence customer intentions in the mobile banking sector in Pakistan.

3. Literature Review and Hypothesis Development

3.1 Behavioral Intentions

Behavioral intentions are the possibility for an individual to execute a specific task (Fishbein, & Ajzen, 2005). Behavioral intentions are the likelihood of a consumer buying the products or services within a defined time frame (Inan et al., 2023). Mobile banking sector research widely discusses and tests the behavioral intentions to use mobile banking services (KA & Subramanian, 2024; Ho, Wu, Lee & Pham, 2020; Zhou, Rau & Jie, 2024). We operationalize behavioral intentions as the tendency of a person to perform a particular mobile banking behavior (Ali, Hameed, Moin & Khan, 2023; Zhou, Rau & Jie, 2024; Inan et al., 2023; Ho, Wu, Lee & Pham, 2020). In our study, mobile banking intentions are the tendency of a person to, use mobile banking services, and/or increase mobile banking usage if the person has access to mobile banking systems.

3.2. Drivers of Trustworthiness

3.2.1 Competence

Competence is the service provider's ability to satisfy the promises made to its audience (Belanche, Casaló, Schepers, & Flavián, 2021; Doney & Cannon, 1997). A service provider's knowledge, capability and resolve to achieve the desired goals and objectives is a reflection service provider's capability (Caldwell & Clapham, 2003). Competence is a measure of a service provider's skill of consistently delivering desirable performance while attending to the needs of the clients (Bodó, 2021; Yu, Balaji & Khong, 2015). In the context of mobile banking, competence represents the customer's confidence that the service provider possesses the necessary skills and knowledge to manage accounts and financial data (Afandi, Hartarto & Usman, 2024). Numerous studies in various sectors confirm a significant relationship between competence and trustworthiness (Bodó, 2021; Belanche, Casaló, Schepers, & Flavián, 2021; Sekhon et al., 2014; Caldwell & Clapham, 2003). Hence, we propose our first hypothesis.

- H1: Competence has a positive influence on trustworthiness.

3.2.2 Benevolence

Benevolence involves genuine concern for customer welfare beyond mere profit generation motives (Yu, Balaji & Khong, 2015; Hallikainen & Laukkanen, 2021). It indicates the extent to which a service provider is mindful of customer well-being (Sekhon et al., 2014). In the context of mobile banking, benevolence reflects how customers perceive service providers caring not only about delivering banking services but also about their well-being in managing accounts (Krishna, Krishnan & Sebastian, 2023; Agnihotri, & Bhattacharya, 2023). Prior research consistently identifies benevolence as a strong determinant of trustworthiness and trust (Mayer et al., 1995; Hallikainen & Laukkanen, 2021; Krishna,

Krishnan & Sebastian, 2023; Agnihotri, & Bhattacharya, 2023). Building on this discussion, we formulate our second hypothesis.

- H2: Benevolence has a positive influence on trustworthiness.

3.2.3 Integrity

Integrity in a service provider reflects the user/customer perception that the provider adheres to the same set of rules acceptable to customers (Mayer et al., 1995). It entails the practical implementation of behavioral rules such as credibility, honesty, and morality, fostering mutual trust in a relationship (Hallikainen & Laukkanen, 2021). Integrity contributes to a positive image and customer trust while maintaining confidentiality in E-commerce. In our study, integrity signifies the mobile banking service provider's positive, ethical, and moral image in customers' minds (de Oliveira Santini et al., 2023; Yu et al., 2015). Numerous studies affirm a significant relationship between integrity and trustworthiness, also measuring a direct impact on trust (Krishna, Krishnan & Sebastian, 2023; Hallikainen & Laukkanen, 2021). The more integrity portrayed, the higher the trust in the service provider (Hallikainen & Laukkanen, 2021; Agnihotri, & Bhattacharya, 2023). Thus, based on these findings, we formulate our third study hypothesis

- H3: Integrity has a positive influence on trustworthiness.

3.2.4 Communication

Communication involves the meaningful exchange of formal and informal information between customers and suppliers (Krishna, Krishnan & Sebastian, 2023; Morgan & Hunt, 1994). It is a two-way process that aids in reducing ambiguities and conflicts between parties while shaping future beliefs and perceptions (Agnihotri, & Bhattacharya, 2023). In the mobile banking sector, communication serves as a means to maintain frequent relations with users. Geigenmüller and Greschuchna (2011) studied the impact of communication on trustworthiness in the customer relationship domain, finding a significant relationship. Similarly, Sekhon et al. (2014) also measured the impact of communication on trustworthiness, cognitive trust, and effective trust (Urinbaeva, Khasanova & Clugston, 2023; Rajaobelina et al., 2021; Yuen, 2023; Bodó, 2021; Uzir et al., 2021). Based on these findings, we propose our fourth hypothesis.

- H4: Communication has a positive influence on trustworthiness.

3.2.5 Shared Values

Shared values are the beliefs and principles that both the trustor and trustee prioritize when establishing trust (Morgan & Hunt, 1994). It reflects the level of agreement on policies, goals, and ethical standards between the two parties (Robinson, 2020; Morgan & Hunt, 1994). In the mobile banking sector, shared values represent customers' perceptions of how branchless mobile banking aligns with their goals and behaviors (Robinson, 2020; Yu et al., 2015). Shared values in this context highlight the similarity of beliefs between customers and service providers. Previous research indicates that shared values

significantly influence trustworthiness and contribute to the trustworthy image of the service provider (Robinson, 2020; Bodó, 2021; Uzir et al., 2021; Sekhon et al., 2014; Ennew & Sekhon, 2007; Khan et al., 2023; Damberg, Schwaiger & Ringle, 2022). Therefore, we formulate our fifth hypothesis based on these observations.

- H5: Shared values have a positive influence on trustworthiness.

3.2.6 Quality Assurance

Quality assurance pertains to the consistent understanding and adherence to quality standards to achieve desired outcomes (Caldwell & Clapham, 2003). Quality assurance encompasses various aspects of products and services, addressing both technological and managerial aspects such as registration and ISO standards (van Oorschot et al., 2023). In the mobile banking sector, we consider quality assurance from the service provider's standpoint; providing quality services can contribute to building customer trust and a competitive position (Bunker, 2020). Despite its importance, quality assurance is not widely explored in financial sector research (Afandi, Hartarto & Usman, 2024; de Oliveira Santini et al., 2023; Farooq & Moon, 2020). Caldwell & Clapham (2003) incorporated quality assurance as a determinant of trustworthiness and trust in their research. Based on this, we propose our sixth hypothesis for the study.

- H6: Quality assurance has a positive influence on trustworthiness.

3.3 Trustworthiness

Trustworthiness is the perceived likelihood that a specific trustee will uphold one's trust (Sekhon et al., 2014). It's a trait of the trustee that defines whether they can be trusted (Afandi, Hartarto & Usman, 2024; de Oliveira Santini et al., 2023; Bunker, 2020). Caldwell and Clapham (2003) position trustworthiness as a mediating lens through which trustors filter their decision to trust. If the trustee is trustworthy, the trustor decides to trust them (Fawcett et al., 2017; Kharouf, Lund & Sekhon, 2014; Yu, Balaji & Khong, 2015; Sekhon et al., 2014). In mobile banking, trustworthiness is the service provider's attribute that helps customers determine whether to trust the service provider (Lee et al., 2024; Krishna, Krishnan & Sebastian, 2023; Farooq & Moon, 2020; Ennew & Sekhon, 2007). Numerous researchers have found a significant influence of trustworthiness on cognitive and affective trust, positioning trustworthiness as a mediator (Bodó, 2021; Sekhon et al., 2014; Ennew & Sekhon, 2007; Yu, Balaji & Khong, 2015). Furthermore, we conceptualize trustworthiness to influence the continuance of mobile banking behavioral intentions through trust. Based on these considerations, we developed our seventh and eighth hypotheses.

- H7: Trustworthiness has a positive influence on affective trust.
- H8: Trustworthiness has a positive influence on cognitive Trust.

3.4 Trust

There are various definitions and conceptualizations of trust, but it is generally agreed that trust is the willingness of one party to rely on the other in a relationship (Moorman et al., 1992; Doney & Cannon, 1997; Muflih et al., 2024). The literature distinguishes two types of trust: affective trust and cognitive trust (Zhou, Rau & Jie, 2024; Sekhon et al., 2014; Kim, Ferrin & Rao, 2008). In our conceptual model, we incorporate both dimensions of trust. Cognitive trust reflects the level of customer assurance or willingness based on the service provider's reliability and experience (Saxena, Gera & Taneja, 2023; Moorman et al., 1992). It is a conscious choice grounded in belief and some knowledge about others (Sekhon et al., 2014). Cognitive trust represents the rational choices of consumers, depending on service attributes and features. In mobile banking, trust is crucial for customer adoption of services (Jammoul et al., 2023; Zhou, Rau & Jie, 2024; Saxena, Gera & Taneja, 2023). Affective trust is rooted in emotional ties within the relationship (Ali et al., 2023; Farooq & Moon, 2020; Sekhon et al., 2014), relying on emotional investment (Saxena, Gera & Taneja, 2023). Several researchers have also measured the direct impact of trust on behavioral intention (Lappeman et al., 2023; Ali et al., 2023; Farooq & Moon, 2020; Saxena, Gera & Taneja, 2023; Jammoul et al., 2023; Kharouf, Lund & Sekhon, 2014; Kim, Ferrin & Rao, 2008; Zur, Leckie & Webster, 2012; Rajaobelina et al., 2021). These assumptions lead us to develop the ninth and tenth hypotheses of the study.

- H9: Cognitive trust has a positive influence on satisfaction.
- H10: Affective trust has a positive influence on satisfaction.

3.5 Satisfaction

Satisfaction results from product and service features that provide a pleasant fulfilment level (Oliver, 1999). It is an extensive feeling influenced by service features, price, quality, contextual, and personal factors (Muflih et al., 2024; Attiq et al., 2022; Farooq & Moon, 2020; Zeithaml, 2000). Higher consumer satisfaction with service providers increases consumer intentions toward service usage (Saxena, Gera & Taneja, 2023; Din, Attiq & Moon, 2022). Satisfaction helps achieve desirable outcomes from consumers and influences customer intentions towards mobile banking services (Zhou, Rau & Jie, 2024; Balakrishnan & Dwivedi, 2021). Previous research has shown that satisfaction significantly influences behavioral intentions in the banking sector (Lappeman et al., 2023; Ali et al., 2023; Farooq & Moon, 2020; Saxena, Gera & Taneja, 2023; Soren & Chakraborty, 2024). Ho, Wu, Lee and Pham, (2020), and Farooq and Moon (2020) used satisfaction as a mediator between trust and behavioral intentions, identifying a positive impact (Rajaobelina et al., 2021; Zhou, Rau & Jie, 2024). Based on this, we assume satisfaction is a mediator in our model and develop our eleventh hypothesis.

H11: Satisfaction has a positive influence on mobile banking behavioral intentions.

Figure 1 represents the conceptual model of the study.

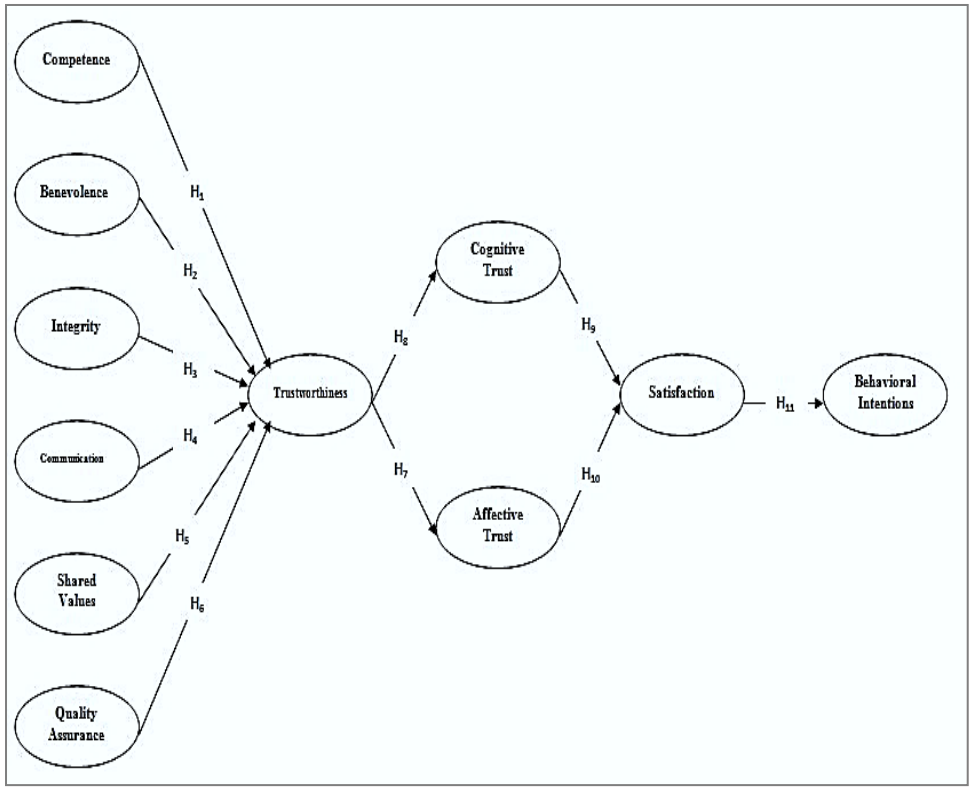

Figure 1 Conceptual Model

4. Methods

4.1 Sampling Procedure

This study focused on young urban Generation Z adult banking customers in Pakistan, aged 18-30, who actively use banking services. Given their heightened awareness of technological advancements and connection to the digital era, we utilized a mixed-method sampling approach (Yu et al., 2015; Moon & Attiq, 2018). Systematic sampling was applied for data collection with a fixed interval of every 5th element in the population from the main branches of various banks in Pakistan. To ensure an ample sample size, we adhered to three sample selection guidelines. Kline (2015) suggests a minimum sample size of 200 for Structural Equation Modeling (SEM) analysis, while other researchers propose 1-5 responses per estimated parameter (Hair et al., 2017). In mobile banking

studies, sample sizes range from 194 to 307 respondents (Moon & Abbas, 2024; Farooq & Moon, 2020; de Oliveira Santini et al., 2023). The chosen sample size of 346 respondents comfortably exceeds the specified thresholds

4.2 Measurement Instrument

We employed a five-point Likert scale (1=strongly disagree to 5=strongly agree) in our study, adapted from previous research. Competence used six items, benevolence and communication comprised four items, shared values employed a three-item, cognitive trust and affective trust each utilized a three-item and integrity utilized five-item, from Ennew and Sekhon (2007) and Doney and Cannon (1997) to measure consumer responses. Quality assurance adopted a four-item scale from Caldwell and Calpham (2003). Trustworthiness used a four-item scale from Donney and Cannone (1997). Customer satisfaction (CS) employed a three-item scale from Kohli et al. (2004). Behavioral intentions (BI) comprised a two-item scale from Venkatesh and Davis (1996).

4.3 Data Collection Process

We collected self-administered data from the main branches of banks in Pakistan during November and December 2023. We systematically (every 5th) collected data from the bank's main branches in Lahore, Islamabad, Multan, Peshawar and Faisalabad (Moon & Abbas, 2024). We systematically approached every 5th individual who entered the bank during regular working hours. There were certain criteria for respondents to participate in the study. The first criterion was respondent must have a bank account. Second, was respondents should be Generation Z representatives, age should be between the age bracket (18-30). The third criterion was respondents must have a smartphone with 3G or 4G internet services. The fourth criteria were respondent willingness to participate and filling the questionnaire.

We initially contacted 966 banking users out of which 301 individuals refused to participate in the study. 665 (69%) individuals showed their willingness to participate in the study. Of 665 individuals 201 individuals did not fulfill the criteria which we decided therefore we eliminated this individual from participation. A total of 461 filled questionnaires were returned. We screened out 461 questionnaires and eliminated 115 questionnaires from the study due to missing information and unengaged responses. Finally, 346 valid questionnaires are used for analysis.

4.4 Tools and Techniques for Analysis

We used SPSS 25 for data entry and screening while AMOS 25 for performing structural equation modelling (SEM) to test hypotheses. We used covariance-based SEM (CB-SEM) to test the hypotheses because of the superiority of CB-SEM in testing and confirming theory with complex models, its ability to provide global fitness and accurate measurement of estimation parameters.

5. Data Analysis and Results

5.1. Data Screening

Data screening is the preliminary analysis where we check the dataset for errors before further analysis. Following Hair et al.'s (2017) recommendations, we conducted tests for missing values, normality, outliers, and multicollinearity. Among the 346 final cases, no abnormal or missing values were found. Outliers were replaced with corresponding means (Cousineau & Chartier 2015). Data normality was assessed with skewness and kurtosis falling within recommended thresholds (±1, ±3) as per Tabachnick and Fidell, (2007). Multicollinearity among independent variables was evaluated using tolerance and variance inflation factor (VIF) (Diamantopoulos & Winklhofer, 2001). VIF ranged from 1.04 to 1.98, and tolerance values from 0.83 to 0.93, indicating no multicollinearity issues for all variables

5.2. Sample Profile

The banking user sample majorly included males (61%) and had an average age of 25.8 years. 47% of the respondents reported an average monthly income of up to PKR 50000 and the majority (56%) were professionals with a bachelor's degree.

5.3. Structural Equation Modelling

The study followed Anderson and Gerbing's (1988) two-step approach: first, examining the reliability and validity of the measurement model, and second, evaluating the structural model to analyze the results of the proposed hypotheses.

5.3.1. Confirmatory Factor Analysis

The Confirmatory Factor Analysis (CFA) with a Maximum Likelihood Approach (MLE) and path parameters constrained to "1" yielded a satisfactory fit (CMIN/DF=1.45, TLI=0.92, IFI=0.93, PCLOSE =1, RAMSEA=0.03, NFI=0.82, GFI=0.89, CFI=0.93, AGFI=0.87). to further refine the model, we adjusted for modification, and eliminated items with low standardized factor loading, squared multiple correlations, and high standardized residual correlations. To ensure the robustness of the measurement model, we assessed reliability, convergent validity, and discriminant validity (Moon & Attiq, 2018; Fornell & Larcker, 1987).

We assessed construct reliability using factor loadings (FL $\geq$ 0.60), Cronbach's alpha ($\alpha \geq$ 0.70), and Composite reliability (CR $\geq$ 0.70). Tables 1 and 2 demonstrate that both Cronbach's alpha and CR values fall within the recommended thresholds, confirming the reliability of all constructs (Hair et al, 2017; Fornell & Larcker, 1987).

Table 1. Results of Confirmatory Factor Analysis

Codes	Statements	F/L	SMCs
Competence			
CP4	Mobile banking service provider is knowledgeable to me.	0.53**	0.28
CP5	Mobile banking service provider has the appropriate skills to deliver the services.	0.66**	0.44
CP6	Mobile banking service provider works competently.	0.62**	0.38
Benevolence			
BN1	Mobile banking service provider does whatever it takes to make me happy.	0.70**	0.49
BN2	Mobile banking service provider shows respect to customer.	0.66**	0.43
BN3	Mobile banking service provider is open to the customer needs.	0.63**	0.40
BN4	Mobile banking service provider will do best to help me.	0.71**	0.50
Shared values			
SHV1	Mobile banking service provider has same values as me	0.56**	0.31
SHV2	Mobile banking service provider has the same concern as me	0.75**	0.56
SHV3	Mobile banking service provider acts as I would in dealing with customers.	0.74**	0.55
Integrity			
INT1	Mobile banking service provider keeps its word.	0.87**	0.77
INT2	Mobile banking service provider conducts transactions fairly.	0.83**	0.69
INT3	Mobile banking service provider can be relied upon to give honest advice.	0.63**	0.39
Communication			
CM1	Mobile banking service provider keeps me well informed about what is going on with my mobile account.	0.68**	0.46
CM2	Mobile banking service provider explains recommendations in a meaningful way.	0.77**	0.61
CM3	Mobile banking service provider always offers me as much information as I need.	0.70**	0.49
Quality Assurance			
QA1	Mobile banking service provider understands principles of quality improvement.	0.58**	0.34
QA2	Mobile banking services provider are involved in analyzing system improvements in their works units.	0.74**	0.54
QA3	Mobile banking services provider reinforce established goals.	0.71**	0.51
QA4	Performance analysis is used to evaluate whether formalized goals are being achieved.	0.62**	0.38
Trustworthiness			
TW1	Mobile banking service provider usually keeps the promises that it makes.	0.63**	0.39
TW2	Mobile banking service provider looks after the welfare of the customers.	0.63**	0.39
TW3	My mobile banking service provider has a reputation for looking after its customers.	0.69**	0.48

TW4	My mobile banking service provider has a reputation for having its customer interests at heart.	0.66**	0.43
Affective trust			
AT1	My mobile banking service provider is always honest with me.	0.76**	0.58
AT2	My mobile banking service provider is concerned about my best interest.	0.72**	0.52
AT3	My mobile banking service provider makes every effort to address my needs.	0.77**	0.59
Cognitive trust			
CT1	I trust my mobile banking service provider to do what it says it will do.	0.69**	0.48
CT2	I trust my mobile banking service provider to have my best interest at heart.	0.77**	0.59
CT3	My mobile banking service provider has a reputation for being reliable.	0.77**	0.60
Satisfaction			
CS1	Overall, I was satisfied with mobile banking	0.81**	0.66
CS2	I strongly recommend mobile banking to others	0.71**	0.50
CS3	I could use the services of my choice easily.	0.72**	0.52
Behavioral Intentions			
BI1	Assuming that I have access to mobile banking systems, I intend to use them	0.69**	0.78
BI2	I intend to increase my use of mobile banking in the future	0.88**	0.48
Notes: F/L = Factors loadings; SMCs = Squared Multiple Correlations			

To establish measurement model validity, we assessed convergent and discriminant validity. Convergent validity was evaluated using average variance extracted (AVE $\geq$ 0.50) and factor loadings (FL $\geq$ 0.60) (Fornell & Larcker, 1987). The values in Table 2 confirm that the scales are convergently valid.

Table 2: Reliability and Validity

		α	CR	AVE	1	2	3	4	5	6	7	8	9	10	11
1	**Satisfaction**	0.80	0.79	0.57	***0.75***										
2	**Benevolence**	0.77	0.76	0.56	0.03	***0.74***									
3	**Shared Values**	0.73	0.73	0.58	0.10	0.23	***0.75***								
4	**Integrity**	0.71	0.83	0.62	0.02	0.27	0.08	***0.78***							
5	**Competence**	0.72	0.73	0.56	-0.06	0.46	0.21	0.17	***0.75***						
6	**Communication**	0.78	0.77	0.52	0.12	0.01	-0.14	0.11	0.20	***0.72***					
7	**Quality Assurance**	0.76	0.76	0.54	0.16	0.20	0.02	-0.01	0.02	-0.05	***0.73***				
8	**Trustworthiness**	0.75	0.75	0.53	0.37	0.00	0.18	-0.03	0.03	0.16	0.11	***0.72***			
9	**Cognitive Trust**	0.79	0.79	0.56	0.31	-0.04	0.11	0.10	0.07	0.14	0.09	0.29	***0.74***		
10	**Affective Trust**	0.80	0.80	0.57	0.25	-0.04	-0.05	-0.09	-0.02	0.12	0.07	0.30	0.20	***0.75***	
11	**Intentions**	0.76	0.77	0.63	0.22	-0.01	0.05	0.05	0.10	0.10	-0.02	0.34	0.33	0.24	***0.79***

Notes: CR=composite reliability; AVE= average variance extracted. α = Cronbach's alpha

To ensure discriminant validity, three criteria were employed. First, each construct's composite reliability (CR) should surpass the average variance extracted (AVE) values (CR > AVE > 0.50). Second, the square roots of AVEs should exceed inter-construct correlations. Third, significant factor loadings (FL ≥ 0.50) of measurement items with their respective latent constructs, rather than other constructs, reinforce discriminant validity (Moon & Attiq, 2018; Fornell & Larcker, 1987). Statistics from Tables 1 and 2 indicate the discriminant validity of the study constructs.

5.3.2. Structural Model and Hypothesis Testing

Hypothesized relationships among different constructs were tested in the latent structural model Results indicate that the structural model was a good fit (CMIN/DF= 1.47, GFI= 0.89, AFGI= 0.86, CFI= 0.92, IFI= 0.93, NFI= 0.81, TLI= 0.91, RMSEA= 0.037, PClose= 1.00). The results of Model R2 indicated that antecedents of trustworthiness explained 35% variance (Model R2 = 0.35). Similarly, the predictors explained a 33% variance in cognitive trust (Model R2 = 0.33) and 34% in affective trust (Model R2 = 0.34). Cognitive trust and affective trust explained 38% variance in satisfaction (Model R2 = 0.38). The overall model explained 27 % variance in behavioral intentions (Model R2 = 0.27).

Significant model R2 are testament to the validity of the relationship marketing theory, trustworthiness mediating lens and the expectation confirmation theory (Kharouf, Lund & Sekhon, 2014; Caldwell & Hayes, 2007; Fawcett et al., 2017; Bhattacherjee, 2001; Colquitt & Rodell, 2011). This further elucidates the strength of the conceptual model of this study in explaining the mobile banking intentions of Generation Z consumers of Pakistan. Furthermore, in the structural model, eleven out of nine hypotheses were supported confirming the proposed directions of significant effects.

The structural model results revealed an insignificant influence of competence (H1: γ= -0.06, $p < 0.35$) and benevolence (H2: γ= -0.07, $p < 0.31$) on trustworthiness. Surprisingly, the presumed influence of benevolence and competence is not supported by the study's results. Contrary to the theoretical expectations (Belanche, Casaló, Schepers, & Flavián, 2021; Bodó, 2021; Hallikainen & Laukkanen, 2021; Krishna, Krishnan & Sebastian, 2023; Agnihotri, & Bhattacharya, 2023; de Oliveira Santini et al., 2023), the findings suggest that a mobile banking service provider's ability to perform tasks and manage accounts does not contribute significantly to trustworthiness. Additionally, the study indicates that mobile banking service providers may not genuinely prioritize customer welfare. Competence and benevolence in mobile banking services are perceived as intangible, making it challenging for customers to assess the service provider's ability and dedication (Krishna, Krishnan & Sebastian, 2023; Hallikainen & Laukkanen, 2021; Yu et al, 2015).

The structural model results indicated a significant influence of integrity (H3: γ= 0.07; $p < 0.21$), communication (H4: γ= 0.30; $p < 0.01$), shared values (H5: γ= 0.30; $p < 0.01$), and quality assurance (H6: γ= 0.17; $p < 0.01$) on trustworthiness. Much like previous studies, the findings point out that problem-solving credibility, ethical conduct, good reputation and honesty are instrumental in shaping a trustworthy image of the service provider in the minds of users (Krishna, Krishnan & Sebastian, 2023; Sekhon et al, 2014; Kharouf et al, 2014; Geigenmüller & Greschuchna, 2011; Yu, Balaji & Khong 2015; Agnihotri, & Bhattacharya, 2023; Caldwell & Clapham, 2003). Moreover, ambiguity-reducing information during the service delivery process, regular updates and consistent communication also help boost the trustworthiness of the mobile banking service provider (Urinbaeva, Khasanova & Clugston, 2023; Rajaobelina et al., 2021; Yuen, 2023; Bodó, 2021; Uzir et al., 2021). The study further indicates a stronger connection between users and service providers can be fostered with personalized app experiences and a sense of shared goals such as focus on functionality and secure financial transactions (Khan et al., 2023; Damberg, Schwaiger & Ringle, 2022). Furthermore, service providers can achieve the desired trust level by maintaining consistent rules and delivering standard services (Afandi, Hartarto & Usman, 2024; de Oliveira Santini et al., 2023; Farooq & Moon, 2020; van Oorschot et al., 2023; Bunker, 2020).

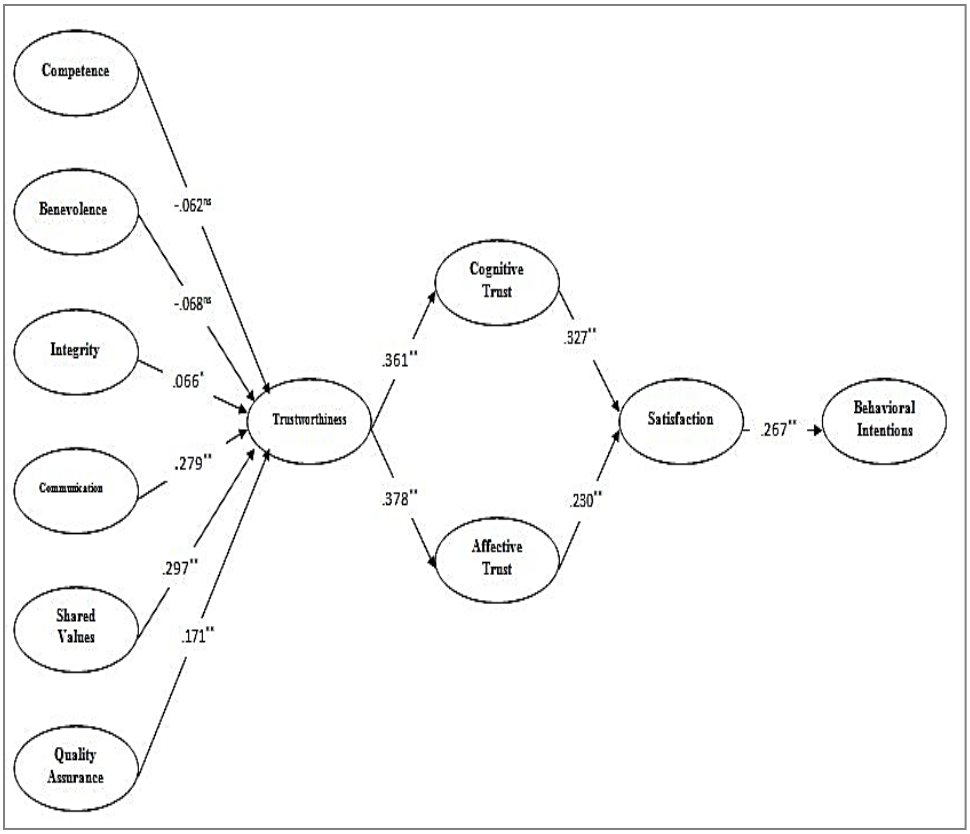

Figure 2: Structural Model

The study's results highlight that trustworthiness significantly influences affective trust (H7: $\gamma = 0.38$; $p < 0.01$) and cognitive trust (H8: $\gamma = 0.36$; $p < 0.01$). The findings suggest that mobile banking service providers with trustworthy perceptions are always honest, are concerned with their client's interests and make every effort to address the needs of their consumers (Bodó, 2021; Lee et al., 2024). Furthermore, trustworthy mobile banking service providers walk the talk, have the customer interests at their heart and garner a reputation of being reliable. Additionally, consistent with previous findings, trustworthiness acts as a significant mediator and positively shapes consumers' cognitive or affective trust-related decision-making processes (Krishna, Krishnan & Sebastian, 2023; Farooq & Moon, 2020; Caldwell & Clapham, 2003; Sekhon et al, 2014; Yu, Balaji & Khong 2015).

Moreover, the study reveals a significant influence of cognitive trust (H9: $\gamma = 0.33$; $p < 0.01$) and affective trust (H10: $\gamma = 0.23$; $p < 0.01$) on satisfaction. Users emphasizing

detailed information, the service provider's reputation, and service convenience are likely to be more satisfied with mobile banking, compared to those prioritizing emotional attachments, feelings, and concerns about the service provider (Muflih et al., 2024; Lappeman et al., 2023; Ali et al., 2023; Zur, Leckie & Webster, 2012; Rajaobelina et al., 2021). Additionally, the hypotheses demonstrate that satisfaction significantly influences behavioral intentions (H11: $\gamma = 0.27$; $p < 0.01$). This suggests that users with favorable feelings about service features, cost, and quality are more likely to develop behavioral intentions towards mobile banking (Zhou, Rau & Jie, 2024; Balakrishnan & Dwivedi, 2021; Saxena, Gera & Taneja, 2023; Soren & Chakraborty, 2024;). Notably, our findings confirm that both satisfaction and trust, as components of relationship quality, exert influence on mobile banking (Muflih et al., 2024; Din, Attiq & Moon, 2022; Rajaobelina et al., 2021; Zhou, Rau & Jie, 2024). Furthermore, cognitive trust emerges as more influential than affective trust.

Table 3: Results of Hypotheses

Hyp	Structural Path			Γ	S.E	t-values	p-values	Decision
H1	Competence	→	Trustworthiness	-0.06	0.05	-0.93	0.348	Not supported
H2	Benevolence	→	Trustworthiness	-0.07	0.04	-1.01	0.309	Not supported
H3	Integrity	→	Trustworthiness	0.07	0.03	1.24	0.013	supported
H4	Communication	→	Trustworthiness	0.28	0.04	5.19	***	Supported
H5	Shared Values	→	Trustworthiness	0.30	0.06	5.54	***	Supported
H6	Quality Assurance	→	Trustworthiness	0.17	0.05	3.29	***	Supported
H7	Trustworthiness	→	Affective Trust	0.38	0.06	7.58	***	Supported
H8	Trustworthiness	→	Cognitive Trust	0.36	0.05	7.18	***	Supported
H9	Cognitive Trust	→	Satisfaction	0.33	0.05	6.63	***	Supported
H10	Affective Trust	→	Satisfaction	0.23	0.05	4.67	***	Supported
H11	Satisfaction	→	Intentions	0.28	0.06	5.14	***	Supported

Notes: Γ= Path Coefficients, S.E.= Standard Errors

5.3.3. Mediation Analysis

We performed mediation analysis using Hayes' (2015) procedure to examine the influence of mediators (trustworthiness and satisfaction). Direct and indirect effects, with the mediator, were measured in line with this procedure. Bootstrapping with 5,000 resamples at a 90% confidence interval was employed to assess the statistical significance of the mediation (Moon & Attiq, 2018). Initially, we analyzed direct effects without the mediator, and then we introduced the mediator to analyze indirect effects. The mediation model encompassed direct paths from the trustworthiness drivers to cognitive and affective trust, and satisfaction acted as a mediator between trust dimensions (cognitive trust, affective trust) and behavioral intentions.

Results of mediation analysis revealed that trustworthiness mediated the relationship between shared values, competence, integrity, quality assurance and cognitive and affective trust. The finding implies that unless mobile banking organizations are reliable, of good reputation, and transparent, consumers find it difficult to develop favourable feelings and attachments or any functional utility (Zhou, Rau & Jie, 2024). Notably, trustworthiness doesn't mediate the relationship between competence, benevolence, and cognitive as well as affective trust (Soren & Chakraborty, 2024). This underscores the limited impact of competence and benevolence, given their intangible nature (Rajaobelina et al., 2021; Zhou, Rau & Jie, 2024). Consumers lack insight into the operational aspects of mobile banking organizations, associating competence and benevolence more with people than the organizations themselves (Lee et al., 2024; Krishna, Krishnan & Sebastian, 2023; Farooq & Moon, 2020). Additionally, satisfaction mediates the relationship between cognitive and affective trust and behavioral intention. The results of the mediation are summarized in Table 4.

Table 4: Results of Mediation Analysis

	Structural Paths					Direct Effect	P-Value	Ind. Effect	P-Value	Decision
WOM	Competence	→			Cognitive Trust	0.11	0.15			
WM	Competence	→	Trustworthiness	→	Cognitive Trust	0.12	0.09	-0.02	0.36	No Mediation
WOM	Competence	→			Affective Trust	-0.07	0.30			
WM	Competence	→	Trustworthiness	→	Affective Trust	-0.05	0.47	-0.02	0.38	No Mediation
WOM	Benevolence	→			Cognitive Trust	-.025	0.00			
WM	Benevolence	→	Trustworthiness	→	Cognitive Trust	-0.23	0.00	-0.02	0.33	No Mediation
WOM	Benevolence	→			Affective Trust	-0.05	0.54			
WM	Benevolence	→	Trustworthiness	→	Affective Trust	-0.02	0.77	-0.03	0.34	No Mediation
WOM	Shared Values	→			Cognitive Trust	0.18	0.00			
WM	Shared Values	→	Trustworthiness	→	Cognitive Trust	0.09	0.09	0.09	0.00	Mediation
WOM	Shared Values	→			Affective Trust	0.06	0.00			
WM	Shared Values	→	Trustworthiness	→	Affective Trust	0.05	0.41	0.11	0.00	Mediation
WOM	Integrity	→			Cognitive Trust	0.14	0.01			
WM	Integrity	→	Trustworthiness	→	Cognitive Trust	0.16	0.00	0.02	0.04	Mediation
WOM	Integrity	→			Affective Trust	-0.03	0.58			
WM	Integrity	→	Trustworthiness	→	Affective Trust	0.01	0.04	0.02	0.04	Mediation
WOM	Communication	→			Cognitive Trust	0.17	0.01			

WM	Communication	→	Trustworthiness	→	Cognitive Trust	0.08	0.13	0.09	0.00	Mediation
WOM	Communication	→			Affective Trust	0.19	0.00			
WM	Communication	→	Trustworthiness	→	Affective Trust	0.09	0.16	0.10	0.00	Mediation
WOM	Quality Assurance	→			Cognitive Trust	0.18	0.00			
WM	Quality Assurance	→	Trustworthiness	→	Cognitive Trust	0.13	0.02	0.05	0.00	Mediation
WOM	Quality Assurance	→			Affective Trust	0.11	0.07			
WM	Quality Assurance	→	Trustworthiness	→	Affective Trust	0.05	0.42	0.06	0.00	Mediation
WOM	Cognitive Trust	→			Behavioral Intentions	0.34	0.00			
WM	Cognitive Trust	→	Satisfaction	→	Behavioral Intentions	0.31	0.00	0.03	0.07	Mediation
WOM	Affective Trust	→			Behavioral Intentions	0.22	0.00			
WM	Affective Trust	→	Satisfaction	→	Behavioral Intentions	0.19	0.00	0.02	0.06	Mediation

Notes: WM, With Mediation, WOM, No Mediation

6. Conclusion and Implications

6.1 Conclusion

This study presents a robust theoretical framework for understanding consumer intentions in mobile banking, incorporating the trustworthiness mediating lens and relationship quality components rooted in expectation confirmation theory. We empirically tested the effects of trustworthiness dimensions on cognitive and affective trust, which in turn were tested to predict satisfaction and mobile banking intentions. Empirical findings indicate the strength of the theories used in this study. Furthermore, trust beliefs of shared value, communication, quality assurance, and integrity significantly influence cognitive and affective trust. Trustworthiness and satisfaction mediated the relationship between trust beliefs and users' intentions to use the mobile banking system in Pakistan. The results further emphasize that policymakers and m-banking marketers should ensure quality and communicate the procedural manifestations of m-banking apps and platforms to increase trustworthiness and satisfaction with m-banking services in Pakistan. Consequently, we consider this study successful in comprehending the mobile banking intentions of Generation Z consumers of Pakistan.

6.2 Theoretical Implications

Empirical examination of the influence that relationship quality components of trust and satisfaction in conjunction with trustworthiness, cognitive trust and affective have on the mobile banking intentions in Pakistan led this study to present a fresh perspective on shaping mobile banking behavior (Attiq, Hasni & Zhang, 2022). In doing so, this study contributes in theory on several fronts. First, the study overcomes the previous research

shortcomings by testing trustworthiness as a central driver of the relationship quality components in mobile banking research. This research emphasizes the importance of trust and satisfaction in fostering intentions towards the usage of banking, implying the importance of relationship quality components in technology-related behaviors.

Second, in line with the arguments of (Kim, Ferrin & Rao, 2008), the adds value to the understanding of mobile banking usage intentions by incorporating and empirically testing bi-dimensional trust, cognitive and affective trust in the formation of mobile banking adoption and usage behavior. The bi-dimensional trust explained significant variations which is a testament to the robustness of the theoretical logic of including cognitive and affective trust. Furthermore, trustworthiness, despite its importance in the financial services sector in building consumer trust, was largely overlooked in mobile banking research (Moon & Abbas, 2024). The current study differentiates the roles of trustworthiness, trusting beliefs, and trust dimensions. By incorporating relationship quality components of trust and satisfaction, it captures new effects on behavioral intentions in the mobile banking sector.

Thirdly, the interplay of trust and trusting beliefs holds significance for satisfaction. When consumers are psychologically assured of trust, it naturally leads them towards satisfaction. Finally, this study encourages the research community to move beyond traditional IT acceptance models such as TTF, ITF, and TAM. Instead, there's a call for a deeper exploration of mobile banking intentions, uncovering new variables and elements associated with risk and uncertainty. The study introduces innovative models that encapsulate novel effects on customer intentions, offering policymakers new mechanisms to foster positive attitudes towards mobile banking usage.

The findings of the study highlight the significance of the trustworthy mediating lens and the expectation confirmation theory in the mobile banking sector in particular, and technology and consumer behavior in particular. Findings guide researchers and scholars as to how a sole focus on technology-related theories and constructs may hinder the comprehension of technology diffusion and consumption process. Theories from other domains can provide better explanations of technological and digital consumer behavior by highlighting often overlooked aspects within a specific field.

6.3 Managerial Implication

Understanding the new perspective on creating mobile banking intentions is crucial for the appropriate diffusion of m-banking in Pakistan. The main issue is the inactivity of mobile banking accounts, requiring an active managerial role in fostering intentions. The study offers key implications for mobile banking service providers. When developing services and communication strategies, marketers and managers need to comprehend the mechanisms that generate customer intention towards mobile banking. Non-mobile banking users represent the largest consumer group globally, making it a vital focus for financial institutions. Mobile banking presents growing opportunities, with trust being the pivotal determinant affecting its adoption.

The study examines crucial elements, offering insight into their influence on consumer trust and pleasure with the use of mobile banking. These findings offer fresh insights into the existing body of knowledge on mobile banking, prompting banks and service providers to explore crucial aspects that drive market expansion. The study's findings can assist decision-makers in formulating efficacious strategies to capitalize on the expansion of mobile banking and foster favorable views towards mobile banking. Effective communication plays a significant role in the trust-building process. Service providers must develop transparent information-sharing procedures and communicate in a manner that initiates the diffusion process. Regular and meaningful communication about mobile banking security fosters trust, providing timely information and ensuring service consistency. Service providers should use clear language, avoiding jargon in communication. Integrity is communicated through the provision of secure infrastructure and robust security measures for transactions. Additionally, fair charges, timely service, and reliable applications contribute to assuring service quality. Shared values, reflecting a sense of similarity between users and service providers through ethical business practices and social responsibility, strongly influence trusting beliefs and help build a trustworthy image.

Mobile banking service providers may become trustworthy service providers if they can emulate honesty, concern for consumer interests, reliability and efficacy to deliver the promised services in their promotional campaigns and mobile banking operations. Furthermore, the findings also highlight that honest, reliable, concerned and active mobile banking service providers can infuse continuous, extended and long-term usage of mobile banking services in Generation Z in Pakistan. In conclusion, our study identifies influential factors beneficial for financial institutions and service providers involved in offering mobile banking services, especially those encountering challenges in customer adoption

6.4 Limitations and Future Research

The current study yields intriguing findings, yet it is not devoid of limitations. We employed a cross-sectional research design for data collection. Future research endeavors could benefit from a longitudinal design and experimental design to investigate the relationships among different constructs over time and establish causality among variables of the study. The study population comprises Generation Z, young banking consumers. Future research may broaden its scope to include other demographics such as older consumers, urban and rural populations, and businessmen. With a sample size of 346, we recommend conducting similar research with a larger sample size, providing a more comprehensive view of the results. Conducted in the early stages of mobile banking in Pakistan, this study suggests future researchers explore different countries to examine cross-cultural orientations where mobile banking has firm footholds to discover and implement plausible aggressive strategies for mobile banking diffusion. While the current study focused on specific trusting beliefs, future research should explore additional beliefs

such as fairness, consistency, attraction, efficiency, and responsiveness to assess their impact on trustworthiness and trust in the mobile banking sector.

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