Volume and Issues Obtainable at the Department of Tourism and Hospitality Management-The Islamia University of Bahawalpur, Bahawalpur, Pakistan 63100.
Journal of Tourism, Hospitality, and Services Industries Research
ISSN: 2958-5570 ; ISSN (E): 2958-5589
Volume 4, No.1, June 2024
Journal homepage: https://journals.iub.edu.pk/index.php/jthsir
DOI: 10.52461/jths.v4i01.3016

Empirical and Theoretical Analysis of Digital and Islamic Banks of Pakistan

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ARTICLE DETAILS

History
Received: May, 2024
Online: June, 2024
Keywords
Digital banks, Islamic banks, Customer Satisfaction

ABSTRACT

This paper undertakes empirical and theoretical research on the functioning of digital and Islamic banks in Pakistan, focusing on the growth, models, customer satisfaction, and performance indicators. Islamic banks that operate in line with Shariah laws incorporate some profit-loss sharing mechanisms and have garnered immense growth the world over. On the other hand, digital banks operate strictly online and provide ease and efficiency through easy and fast services to their customers. This study gauges the efficacy of these banking modes in Pakistan based on metrics that include efficiency, liquidity, asset quality, and leverage ratios. The study further collected data from 293 respondents in major Pakistani cities through a well-structured questionnaire that gathered their banking experience. The paper assumes significance in the continued study of both Islamic and digital banking systems as they affect consumer behavior and the financial sector, with the importance of addressing more current issues arising within the limited sample size and data collection techniques. Islamic banking in Pakistan has seen the light of the day, and in countries with Islamic dominance, further innovation and growth should be nurtured, perhaps to match consumer demand and upcoming challenges in regulation. Islamic banks can further their competitive advantage with strides in technology, openness, and innovation in their services.

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Introduction

In the 1970s, Islamic banking emerged as a feasible financial model, and it has since quickly spread throughout worldwide (Islahi, 2018; R.V. et al., 2024). According to S&P, Islamic finance will expand to $4.0 trillion by the middle of this century. Islamic financial products are offered by the majority of digital banks through distinct departments since the profit and loss-sharing (PLS) characteristics of these products are attractive to both Muslims and non-Muslims (M. F. Akhtar et al., 2011). Big names that have included Islamic banking services in their portfolio are HSBC, Standard Chartered, Citibank, and Deutsche Bank. Several countries like France, the United Kingdom, China, and Singapore have made specific legislation to promote Islamic banking(Hanif et al., 2011; Safdar et al., 2024).

In recent years, the landscape of banking system in Pakistan has undergone significant transformations, marked notably by the emergence of digital banking and the establishment of Islamic banks (N. Mehmood et al., 2023). This transformation is not only reshaping the financial sector but also posing intriguing questions for researchers and practitioners alike (Ahmad et al., 2022). The financial landscape of Pakistan now includes significant sectors such as Islamic and digital banking (M et al., 2023). The provision of banking services via digital channels, including mobile apps, internet banking, and other online platforms, is referred to as digital banking. On the other hand, Islamic banking follows Shariah laws, which forbid investing in companies that are deemed Haram (forbidden) and forbid paying interest (Riba) (Hanif et al., 2011; Safdar et al., 2024). In this research, we look into Pakistan's digital and Islamic banks from an empirical and theoretical perspective, aiming to explore their dynamics, impacts, and potential synergies (Asadullah, 2017). Through a blend of empirical evidence and theoretical frameworks, we endeavor to shed light on the evolving nature of banking in Pakistan and its implications for financial inclusion, stability, and growth. Pakistan can enhance its banking sector to further support its development goals by promoting financial literacy, improving regulatory frameworks, and utilizing digital technologies.

Digital banks are those banks that operate solely through the Internet and provide almost all services that a conventional bank offers, like deposit accounts, cards, loans, and investment products (Skinner, 2014). The difference is that the customers do not have to visit any physical branches to open or close the account; the services can be provided through mobile phone applications or web-based accounts(Ofodile et al., 2024). Access to financial services has increased because of mobile banking apps like Easypaisa and JazzCash, particularly in underserved and rural areas. In an effort to streamline the account opening process, the State Bank of Pakistan (SBP) has also been pushing digital financial services through programs like the Asaan Mobile Account scheme. In Pakistan, efforts to eradicate riba from the financial system gave rise to Islamic banking in the 1970s. Different Islamic banking products were introduced in the 1980s, and by the early 2000s, a comprehensive structure for Islamic banking had been established. Pakistan's Islamic banking industry is expected to experience sustained expansion and advancement due to a strong regulatory structure, rising consumer demand, and continuous innovation. In keeping with Islamic values, the industry is essential in advancing ethical investing, financial inclusion, and economic stability. The State Bank of Pakistan conducts and supports training programs, workshops, and seminars because it recognizes the need for qualified professionals in the Islamic banking sector. The purpose of these initiatives is to improve the knowledge and abilities of regulators, bankers, and other Islamic finance stakeholders. Islamic banks offer equity products in addition to Ijarah, one of the Islamic leasing options for financing. That is the difference between Islamic and digital banks (Metawa&Almossawi, 1998). The selection of this study comes from the fact that most of the people are curious about the financial and economic performance of the Islamic banking industry (Muzaffar Asad et al., 2018)

The article has been organized as follows. First is the introduction, where the paper shall present an empirical and theoretical study of Islamic and Digital banks. These shall be in Pakistan. It studies the way they grow, their operational framework, customer satisfaction, and performance indicators. Islamic banking means banking following the Shariah principles, including the profit and loss-sharing criteria and has considerably expanded globally. Digital banking is banking without a brick-and-mortar space and is paperless. It provides customers with excellent operational ease(Challapalli, 2023; Siddiqi, 2006). This study is based on conducting an empirical and theoretical analysis of Pakistan's Islamic and digital banks' financial performance and this objective is achieved by taking into consideration financial factors i.e leverage, asset quality, liquidity and efficiency (Banna et al., 2020).

Corrective measures that are beneficial to the banking sector are informed by the selected financial indicators (Rappaport, 1999). Shareholders and potential investors use the performance data to gauge the investment potential and to craft future strategies. The public will develop an enhanced perception of the Islamic banking system with time as it operates successfully(Al-Naimi et al., 2023). They will be inclined to appreciate although they can expect a lower rate of return. Islamic banking demonstrates the urgency for change and boosts efforts to discover and innovate. Islamic banks are unique compared to digital ones. This has been explained by Hassan & Lewis, (2009). The funding of the Islamic bank may not have an instant impact on the economic development at the intersection of banks and the level of fixed investment is significantly enhanced. The pace of Islamic banking development experienced in Pakistan has been rapid since the last financial crisis. It has impacted positively on the state of the overall financial system(Ofodile et al., 2024). The role of monetary policy regarding economic development will in all possibility be increased accordingly to the growth of the digital business model in banking, considering the COVID-19 aftermath(Sharipova & Asadova, 2023).

Globally, there are various financial systems. However, digital and Islamic banking is the most common. Since the independence of Pakistan, traditional (now digital) banking has existed and heavily relied on interest payments. Islam, being a comprehensive way of life, lays down particular and unique rules regarding banking and finance(Jawaid et al., 2021).For example, all transactions that are built on interest (Riba) are strictly forbidden, and fair commerce is encouraged. Islamic banking began in Pakistan during the 1970s. Because of Islamic banking benefits, it has grown in popularity over time among Muslims and non-Muslims alike (Williams, 2023).

The principles of wealth balance and well-being form the foundation of Islamic banking. This means that both the business and the human person must prosper together. This system os Islamic banking considers both quantity and quality i.e efficient and excellence. As none of the transactions violates the rights of another individual, Islamic banking is morally right because it is founded on equality and risk sharing (Islahi, 2018). Documented contracts financed by Islamic banks include housing, vehicles, parcels, and equipment. The banks purchase the above items on behalf of the applicant, and upon approval, the bank resells them to the applicant, and the borrower pays in installments(Shaltout, 2023; Tashtamirov, 2023).

Compared to traditional banks, digital banks usually charge lower fees and offer higher deposit rates because of less rent and fewer employees (Shaikh et al., 2017). They, therefore, provide a more convenient kind of banking since one can access his account from anywhere and make transactions via the internet (Awan, 2009). Generally, traditional banks lend mostly to the industry. They collect surplus funds from savers and then lend them to businesses or individuals to finance deficit spending. Among the advantages of interest-based banks are earning differences and premium expenses. Also, the banks offer services such as guarantees, letters of credit, investment for international trade. These kinds of the trade include the free resources, whereby the bank profits by merely locking up the free resources and acting as a broker between exporters and importers(K. Mehmood et al., 2020).

TableNo:1

Banks Name	**Islamic Branches**	**Digital/ conventional Branches**	**Total Branches**
Bank Al-Habib	81	869	950
Bank Islami	330		330
Soneri Bank	30	300	330
MCB Limited	1551		1551
Habib Metropolitan	9	391	400
Silk Bank	10	20	30
Faysal Bank	414	136	550
Allied Bank	117	1073	1350
Dubai Islamic Bank	256		256

We evaluate which Pakistani banks are Islamic (i.e non-conventional) and which are conventional in table No 1. We selected 10 Pakistani banks for our study. Dubai Islamic Bank operates under

Islamic principles with 256 branches. Allied Bank has 1350 branches, with 1073 being conventional and 117 Islamic. Faysal Bank has 550 branches, consisting of 136 conventional and 414 Islamic. There are 30 branches of Silk Bank Limited, 10 branches are based on Islamic banking system whereas other 20 branches are on principles of conventional banking system. Similarly, Habib Metropolitan Bank have 400 branches, Islamic branches are 9 whereas conventional based branches are 391 out of 400. MCB (Muslim Commercial Bank) Limited, originally a commercial bank, has been converted into a full-fledged Islamic bank with 1551 branches. There are 330 branches of Soneri Bank; 300 of them are conventional and 30 are Islamic. Bank Islami Pakistan is a full-fledged Islamic bank with 330 branches, this bank has no conventional branch. Bank AL Habib have total 950 branches, 81 are Islamic and 869 are conventional. From the table no 1, it is clearly mentioned that there are 44 banks across Pakistan, with a total of 16,121 branches offering a complete range of financial services.

The foundation of the Islamic financial system is Fiqh al-Muamalat. It is alike to business law (Kiaee, 2007). This business law is as revealed by Allah, the highest authority, and his last messenger Muhammad (PBUH). It covers civil rights, fairness, property rights, and transparency of business dealings. It prohibits Riba (interest), maser (gambling), and all non-halal (prohibited) activities. One can have profits as per Islamic teaching, but there is no fixed profit rate, and the risk of loss and variability of returns has to be there (Kanchu& Kumar, 2013).

Digital banks have the interest to be charged, but Islamic banks do not. Islamic banking follows a separate regulation, and it is riskier than conventional banking (Bader et al., 2008). All products and services of Islamic banking are designed according to the Shariah Supervisory Board policy guidelines, which issues the licenses for these operations and continuously check on their operations to ensure compliance. The working of digital banks is, however, regulated by the government and central banking authorities (Agarwal & Hauswald, 2010). The central bank has its own specific instructions and orders related to the working of Islamic banks, including the maintenance of higher levels of minimum capital than the conventional banks. A significant shortcoming associated with Islamic banking is that it gives large and significant importance to asset-holding which, hence, increases long-term costs for consumers (Bilal & Abbas, 2015).

Internationally and in Pakistan, Islamic banking system is becoming more popular. But more innovation and development could still be possible to satisfy changing regulatory requirements as well as changing consumer tastes. Islamic banks can stay competitive in the contemporary banking market by utilizing technology, improving transparency, and increasing service offerings (Khan, 2010).

Deeper understanding of the financial performance and customer satisfaction levels of Pakistan's digital and Islamic banks is the goal of this research study. The specific objectives of this study are:

- Examine the development and operational structures of Pakistan's Islamic and digital banks.
- Evaluate Islamic and digital banks' performance indicators such as leverage, asset quality, efficiency, and liquidity.
- Determine Pakistani consumers' satisfaction levels with digital and Islamic banking services.
- Determine the variables impacting customer preferences and behavior about digital and Islamic banks.
- To maintain competitiveness and adhere to legal requirements, identify possible areas for innovation and improvement in Islamic banking.

The study will attempt to respond to the following research questions in light of above-mentioned objectives:

- What are the key components of Pakistan's digital and Islamic banks' operational frameworks, and what are the current trends in their evolution?
- How do the efficiency, liquidity, asset quality, and leverage performance indicators compare between Islamic and digital banks?
- In Pakistan, how satisfied are customers with digital and Islamic banking services, and how do they differ from one another?
- What drives consumers to choose and prefer Islamic and digital banks in Pakistan?
- How can innovation and improvements in Islamic banking be advanced to remain competitive and meet regulatory requirements?

The overall performance of the banking sector in Pakistan has grown significantly at both national and international levels. However, regulatory bodies, particularly the State Bank of Pakistan (SBP) and Security Exchange Commission of Pakistan (SECP) have closely monitored the establishment of new local as well as foreign banks. For comparing the financial performance of digital banks as well as Islamic banks in Pakistan, this research will concentrate on four key areas: physical attributes, customer satisfaction level, service quality, and security. Previous studies have compared the financial performance, product offerings, and customer perceptions of Islamic and digital banks at both local and international levels (Kaleem & Abdul Wajid, 2009).

To date, no research has been able to compare the physical aspects, customer satisfaction, service quality, and security of digital banks as well as Islamic banks operating in Pakistan. The research gap in the literature is the evaluation of the success of Islamic banking in comparison with the digital banks. In this way, Islamic banking is still in the developing phase, and different digital banks have made Islamic branches separate for Islamic finance. Even though now Islamic banking and digital banking are becoming important, the work of such a comparative analysis and evaluation is still not available in the literature in Pakistan(Shaukat et al., 2020).

Only a small number of research studies have been conducted in Pakistan on digital or Islamic banking; however, none of them fully address the comparison of banks in the country. The current study intends to fill this research gap and advance understanding of the functions and outcomes of Islamic and digital banking in financial industry of Pakistan. The research holds importance as it has the prospective to educate and guide regulators, decision or policy makers, banking professionals as well as other related banking stakeholders on both the strengths and weaknesses related to digital and Islamic banking. Outcomes of this research will provide significant contributions to the strategic decision-making and policy-making process concerning innovation, financial stability, customer satisfaction and financial inclusion in the banking industry.

1. LITERATUREREVIEW

In literature, relative analysis is often utilized to evaluate the performance of similar organizations. In the banking sector, various methods have been applied for this purpose, with financial ratio analysis being one of the most common. For example, Kaleem & Abdul Wajid, (2009) used econometric techniques to compare the returns on Islamic and digital deposits, finding that Islamic banks significantly impact emerging economies and generally outperform digital financial institutions.

B. Akhtar et al., (2017) also compared Islamic and digital banks, discovering a positive correlation between liquidity risk and capital-to-asset ratio. Jaffar &Manarvi, (2011) analyzed the performance of Islamic and digital banks in Pakistan from 2005 to 2009, using financial data obtained monthly from reports by Pakistan's national bank. Their analysis provides that Islamic banks performed better in capital and liquidity management, while commercial banks were better at administration and revenue generation. Aggarwal & Yousef, (2000), on their part, highlighted that Islamic banks are gaining popularity over the last three decades; already, in that, Sudan and Iran have embraced Islamic banking as their main system. They had already more than sixty countries hosting Islamic banks whose market share in Muslim countries reached about 15% from 2% in the late 1970s.

Iqbal, (2001)conducted a trend and ratio analysis comparing Islamic and digital banks between 1990 to 1998; it concluded that Islamic banks are generally better than digital banks though the trend was on a downward one due to the involvement of traditional banks and the infancy of the banking. Factoring reasons for profitability in traditional and Islamic banks is usually measured using accounting and econometric methods. Kiaee, (2007) in an analysis on the factors that affect bank profitability in Jordan, Bahrain, Egypt, and Saudi Arabia between 1996 to 2003 determined reasons for profitability would differ between traditional and Islamic banks. The performance of banks is usually measured using accounting and econometric methods.

Hamid & Azmi, (2011) made an analysis in which the comparison of the efficiency levels between Islamic and digital banking was made for the period of 2000 and 2009 through a financial ratio analysis. The findings of the study found that Islamic banks were more efficient than digital banks in terms of liquidity, profitability as well. For instance, Hamid & Azmi, (2011) measured the efficiency of Islamic and electronic banks over the time period of 2000 to 2009 with the help of

financial ratios. In the context of liquidity, profitability, and solvency, the Islamic banks have performed better compared to the electronic banks.
Again, Zouari &Abdelhedi, (2021)conducted an application of efficiency ratios in comparing Islamic and electronic banks over time in a consistent manner. Their study used five each of Islamic and electronic banks from Pakistan and found that Islamic banks were better performers than electronic banks. They also asked the Islamic banking sector to come up with new products and new technological solutions for getting ahead in the race to meet customer needs and to keep the active services that characterized Islamic banking. Even with a low degree of riskiness, Islamic banks did not show much difference from electronic banks in terms of profitability. Their study also covered the deposit market of Islamic banking system.

According to Jaffar &Manarvi, (2011) Pakistani Islamic and digital banks' financial results from 2005 to 2009 indicate that though the Islamic banks had enhanced capital retention and liquidity management, the digital banks led in quality management, with potential profit; the asset quality did not differ much, but digital banks were able to retain a low loan loss ratio.

Hasan & Dridi, (2010) highlighted fundamental differences between digital and Islamic banking, particularly in adherence to Shariah principles. Even though Islamic banking is still relatively new when compare to digital financial associations, they observed a notable increase in the number of Islamic banks as a result of Shariah compliance techniques. There was also a dearth of research on the financial stability of Islamic and digital banks.

More research on the profitability of digital and Islamic banking was done by Azad et al., (2023). They found that the profitability of Islamic banking is strongly correlated with financing, capital, and sound economic circumstances. They came to the conclusion that Islamic banking has a higher total loan-to-total asset ratio and is therefore more profitable than conventional banking. Kurniawan et al., (2024) emphasized the scarcity of empirical research comparing the financial stability of digital and Islamic banking. Traditional banking typically offers a preset return on investment, while Islamic banking relates to sharing profit & loss (PLS) with investors and depositors.

Additionally, Mulatsih et al., (2024) explained that Investments are given back as profit or loss in Islamic banking, and the risks involved are shared by the recipient and the bank. This shared risk and equitable expansion have enabled Islamic banking to grow as a viable alternative to traditional banking. Notable progress has been seen in Asia, the Middle East, and Africa, with unprecedented growth in Western economies. Islamic banking windows are being established by central banks in response to the growing demand for Shariah-compliant products. Demand for Islamic banking products has increased, which has encouraged ethical and sustainable economic activity by increasing investments in industries that adhere to Islamic principles. The expansion of Islamic banking promotes economic growth by enabling savings to be mobilized and offering Shariah-compliant financing to individuals and companies. Through the integration of individuals who were previously shut out of the formal financial system for religious reasons, Islamic banking promotes financial inclusion.

Khalil & Siddiqui, (2019) observed that the demand for Islamic banks is increasing, given that 96% of Pakistan's population is Muslim. Eighty percent of banking assets are held by private banks, highlighting their importance in the banking system, according to the years 2007 to 2008 economic assessment conducted in Pakistan. Islamic banking has grown significantly over the last three decades, now functioning in more than 75 countries and offering a competitive alternative to online banking. Digital and Islamic banks are now competing more fiercely since the introduction of Islamic windows, as noted by Khan, (2010).This competition has driven both types of banks to enhance their efficiency at technical, pure, and scale levels to sustain long-term market share and profitability. The banking industry is highly competitive, with new techniques and cutting-edge technology playing a crucial role. Success in this sector requires optimal resource utilization Demirgüç-Kunt & Huizinga, (2010).

Table 2: Sample Banks

S/No.	Banks	Digital /Islamic bank
1	Habib Metropolitan Bank Limited	Digital Commercial Bank
2	Standard Chartered	Digital Commercial Bank
3	UBL Omni	Digital Commercial Bank
4	Telenor Bank	Digital Commercial Bank
5	Meezan Bank	Digital Commercial Bank
6	MCB	Digital Commercial Bank
7	Jazz Cash	Digital Commercial Bank
8	HBL Konnect	Digital Commercial Bank
9	Faysal Bank	Digital Commercial Bank
10	BankAl-HabibLimited	Digital Commercial Bank
11	Bank Alfalah Limited	Digital Commercial Bank
12	Askari Bank	Digital Commercial Bank
13	Albaraka Bank(Pakistan)Limited	Islamic Bank
14	Faysal Islamic Bank Limited	Islamic Bank
15	Dawood Islamic Bank	Islamic Bank
16	Dubai Islamic bank Pakistan Limited	Islamic Bank
17	Bank Islami Pakistan Limited	Islamic Bank

Hanif et al.,(2011) noted that despite the extensive history and expertise of the digital banking sector, interest remains the primary driver of their banking system. Digital banks benefit from vast financial resources that Islamic banks often lack. Overall, Islamic banks are subject to various limitations, even though digital banks offer numerous benefits. However, numerous studies suggest that Islamic banks frequently outperform conventional ones.

PURPOSE AND METHODOLOGY

The objective of this study is to accomplish a thorough assessment of the performance of Pakistan's Islamic and conventional banking sectors over a specific time frame. The goal is to offer insightful information to help with decisions about the distribution of resources, including investments, loans, deposits, and other banking services. The study aims to address the following research questions:

- Which segment of banking is more profitable than others?
- Which segment of the banking industry is more liquid?
- Which area of banking is more vulnerable to credit risk?
- Which type of banking is more solvent?
- Which banks in each stream function the best?
- Which area of banking has comparatively higher rates of satisfaction among customers?

The study looks at data from an eighteen-year period, from 2006 to 2024, covering 12 conventional banks and 5 Islamic banks, in order to address these questions. For both types of banks operating in Pakistan, the methodology combines ratio analysis, external factor analysis, and financial statement analysis. Customer surveys were used to gauge satisfaction levels, and financial ratios were computed to assess the risk-return relationship.

Measures of performance were classified into internal and external factors based on literature reviews. Solvency, credit risk, liquidity and Profitability are among the internal factors that are assessed using specific metrics. Profitability Performance indicators like Return on Equity (ROE) and Return on Assets (ROA) have been identified by earlier works of literature (Samad, 2004). To assess the banks' ability to fulfill their financial obligations, liquidity was assessed by using two ratios i.e the Liquid Assets to Customer Deposits and Short-Term Funds Ratio (LdCDSF) and the Net Loans to Asset Ratio (NetLTA) (Samad, 2004).

The potential for financial loss resulting from an obligor's default on an obligation is known as credit risk. The study employed two proxies i.e impaired loans to gross loans (IMLGL) and common equity to total assets (EQTA) to measure the aspect of credit risk. Solvency is the element of the ability to predict the reliability of a distressed bank. It is measured using the Sharipova & Asadova, (2023) model, which is called the Bank-o-meter. Two popular factors of the aforementioned model are included; the capital adequacy ratio and the non-performing loans.

Customer satisfaction is an external factor, and thus, it was included among the key performance indicators. Closed and open-ended surveys were structured for identification of the satisfaction levels and the factors governing the selection of the bank. The evaluation had its purpose of identification of the motivators of the customers for both Islamic (non-conventional) and conventional banks in Pakistan. The vulnerability and frailty of the banking system in times of financial turmoil are viewed with concern not only by the central banks but also by the creditors and equity investors. Bank insolvency results in something greater than just financial loss; it also inflicts the loss of creditors whose partial losses may be on account of both principal and interest payments. Equity investors are at a greater loss if they stand to lose their whole equity investment.

To be able to identify bank solvency, one then needs to use the Altman, 1968, Bank-o-meter model to do the effective assessment. It is acknowledged that the model itself can yield exact outcomes by employing the least integer of parameters through which a picture is sketched of the bank's health with respect to its financial health(Altman, 1968). Parameters under Altman 1968 and further filtered through (Altman, 1968; :Shar, Shah, and Jamali, 2010) refer to loan to assets ratio, cost to income ratio, non-performing loans t loans ratio, equity to assets ratio and ratio of capital adequacy. Using such broad and deep measurements, stakeholders can make an investment decision on prudential supervisory action and manage risk in a progressive way that will enhance the resilience and stability of the Pakistani banking segment.

Bank-o-meter model employs the following formula:

$$\mathbf{S = (1.5)\ CA + (1.2)\ EA + (3.5)\ CAR + (0.6)\ NPL + (0.3)\ CI + (0.4)\ LA}$$

Where:

- solvency is represented by S
- capital assets ratio is represented by CA
- equity to assets ratio is represented by EA
- capital adequacy ratio is represented by CAR
- non-performing loans to loans ratio is represented by NPL
- cost to income ratio is represented by CI
- loans to assets ratio is represented by LA

This Bank-o-meter model states that banks are not solvent if their S value is less than 50, and they are considered super sound banks if their S value is greater than 70. Since the range between 50 and 70 is subject to classification errors, it is referred to as the gray area (Altman, 1968).

Primary Data

To gather primary data for this study, researchers designed a comprehensive questionnaire and conducted surveys at two different collection points in major cities across Pakistan. A total of 293 clients from the country’s most populous metropolitan areas participated, sharing their experiences with both Islamic and digital banks. The survey included both male and female respondents to ensure a diverse range of insights.

Safety and security, dealing & attendance, degree of satisfaction and Physical aspects were the four main factors that the questionnaire was designed to encompass. These aspects were chosen to provide a thorough understanding of customer experiences and perceptions related to the banking services they used.

- **Respondents` Gender:** Participants in the study were divided into three groups based on their gender: Group 1 consisted of males, Group 2 consisted of females, and Group 3 consisted of others.
- **Respondents' ages:** Participants were split into four age groups: 18 to 27, 28 to 36, 37 to 47, and 48 to 57.
- **Respondent Qualifications**: Four groups based on educational attainment were created from the sample: Matriculation, Intermediate, Graduation, and Master or above.
- **Income of Respondents:** Participants were categorized into four income groups: less than 30,000, 30,000 to 40,000, 40,000 to 50,000, and above 50,000.
- **Bank Type of Respondents:** Respondents were classified based on the type of bank they used, ; males were more likely than females to use digital banks.

2. RESULTS, FINDINGS and DISCUSSIONS:

This section is divided into two subsections, one of which covers the financial analysis and the other of which presents the results of the customer survey.

Demographics Profile

An overview of the respondents' demographic information, broken down by bank type, qualification, age group, gender, and income, is provided in table No. 3. There were 117 female and 176 male responders in total. With a total of 127 respondents, the 48–57 age group accounted for the majority of the sample, followed by the 37–47 age group with 88 respondents. When it comes to educational qualifications, Graduations made up the largest group with 184 respondents, while 54 individuals had intermediate qualifications. Regarding income, the largest segment of respondents earned between 30,000-40,000, accounting for 98 individuals, whereas the smallest group earned less than 30,000, with only 17 respondents. Lastly, in terms of bank type, digital banks had slightly more customers (152) compared to Islamic banks (141). This demographic breakdown provides a comprehensive understanding of the diverse backgrounds of the survey participants.

Table 3: Demographics Profile

Category	Number of Respondents
Income	

Less than 30000	17
30000-40000	98
40000-50000	84
50000Above	94
Gender	
Male	176
Female	117
Age Group	
18-27	11
28-36	67
37-47	88
48-57	127
Bank Type	
Digital Banks	152
Islamic Banks	141
Qualification	
Matriculation	09
Intermediate	54
Graduation	184
Master or abovel/ MS	39
Ph.D	7

Mean Score:

Table 4 displays the calculated mean and standard deviation for each variable for both banking systems i.e digital and Islamic banking system.

Table 4: Mean and Standard deviation

Bank Type	Physical Aspect	Level of Satisfaction	Dealing & Attendance	Safety & Security
Islamic Banks				
Mean	1.2926	1.2195	2.0731	2.1627
N	141	141	141	141
St.Dev	0.4876	0.4190	1.0097	0.9721
Digital Banks				
Mean	1.6730	1.2307	1.9230	2.1153
N	152	152	152	152
St.Dev	0.4736	0.4254	1.0067	0.9832

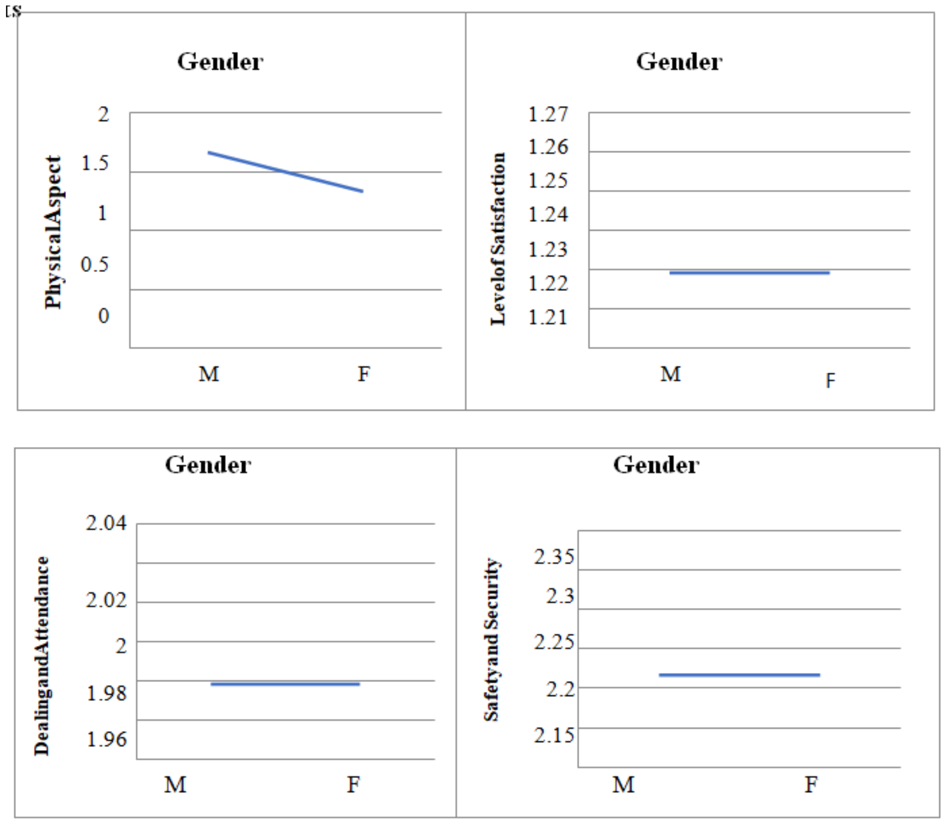
Customer Survey

The current study looks at Pakistani Islamic and digital banks' customer satisfaction rates. When it came to the "physical aspect" variable, digital banks scored 1.67, while Islamic banks recorded a mean score of 1.29. The standard deviations for Islamic banks and digital banks were 0.48 and 0.47, respectively, indicating an average mean score of 1.48 for both categories of banks.

Islamic banks received a mean score of 1.23 on the "level of satisfaction" variable, while digital banks scored slightly lower with a mean of 1.21. The overall mean score for both banking types combined was 1.22. Compared to digital banks, which had a standard deviation of 0.42, Islamic banks had a higher one of 1.21.

Mean GraphPlots:

The research will measure the level of satisfaction of customers with Islamic banks and digital banks operating in Pakistan. Islamic banks can be seen to have a mean of 1.29 concerning the metric of the "physical aspect," while digital banks had a score of 1.67. For both the types of banks combined together, the overall average mean score is 1.48, with standard deviations being 0.48 for Islamic and 0.47 for the digital banks. On the other hand, the metric of the "level of satisfaction" measured Islamic banks at a mean of 1.23, a little higher as opposed to digital banks, which had a score of 1.21. The overall average mean score for both types of banks combined is 1.22, while the standard deviations for the Islamic banks and the digital banks are 1.21 and 0.42, respectively.



Under the metric, Islamic banks and digital banks scored 2.07 and 1.92, respectively, for "dealing and attendance." The overall average mean score for the two types of banks is 1.99, while the overall standard deviations for both Islamic and digital banks are 1.00. For the "safety and security" variable, Islamic banks recorded a mean score of 2.16 compared to 2.11 for digital banks. The combined average mean score for both types of banks is 2.13. The standard deviations are 0.97 for Islamic banks and 0.98 for digital banks.

Customer Satisfaction and Gender:

To determine if there was a difference in customer satisfaction between Islamic and conventional banking, the data was analyzed with a focus on gender. The overall satisfaction levels within the city were measured by analyzing mean plots for each variable: Safety & Security, Dealing and attendance, level of satisfaction and physical aspect. The results revealed that men reported the highest levels of satisfaction and security, with the maximum mean scores in these groups.

Table 5: Islamic Banking in Pakistan: Customer Satisfaction and Perceptions

Questions Asked	Fully Dissatisfied	Dissatisfied	Neutral	Satisfied	Fully Satisfied
Ease of obtaining loans	2%	15%	45%	15%	23%

Profit/Interest rate on a savings account	0%	20%	35%	35%	10%
E-banking service quality	6%	20%	30%	44%	0%
Bank provides fast and efficient services	0%	15%	25%	25%	35%
Loan interest rates	0%	20%	38%	22%	20%
The bank's location	0%	17%	21%	37%	25%
Bank employees' friendliness	0%	15%	42%	20%	23%
range of goods and services provided	0%	8%	17%	70%	5%

Table 5 offers information on how Pakistani customers feel about Islamic banking services in relation to a number of different factors. The percentage of respondents that expressed varying degrees of satisfaction with each aspect of Islamic banking, ranging from "Fully Satisfied" to "Fully Dissatisfied," is displayed in the table. Specifically, 35% of participants stated that they were "Fully Satisfied" with the prompt and effective services provided by Islamic banks, whereas 25% expressed contentment with the simplicity of loan application. 70% of those surveyed said they were "satisfied" with the combination of Islamic Banks' offerings. However, there are still some problematic areas, for example, the quality of e-banking services, where no respondents were "Fully Satisfied," and 44% were satisfied. In Table 5, the strengths and weaknesses in the Islamic Banking services can be highlighted in Pakistan from the dimension of customer satisfaction.

Through this research, it has been noted and supported that customer satisfaction is an important determinant in success from the perspective of banking institutions. (Ngo & Nguyen, 2016). According to various research studies, improving service quality and efficiency is essential to raising customer satisfaction in the banking industry (Jamal & Naser, 2002; Kumar & Reinartz, 2016). There is another study which supports the previous studies in giving evidence to the fact that a variety of products and services offered helps in significantly raising customer satisfaction and loyalty in the banking sector (Edward et al., 1999). Customer satisfaction in the Islamic banking system is greatly impacted by ethical behavior and adherence to Shariah. Participation in the community and teaching about the fundamentals of Islamic finance are also important. On the other hand, the main factors in digital banking are speed, convenience, and technological innovation (Shaltout, 2023; Tashtamirov, 2023). It is essential to guarantee a smooth and intuitive user experience throughout digital channels. Therefore, Table 5 shows how important it is to pay attention to the customers' needs and preferences to improve their overall satisfaction levels of Islamic Banking in Pakistan.

Table 6: Customer Satisfaction Levels in Conventional Banking in Pakistan

Questions Asked	Fully Dissatisfied	Dissatisfied	Neutral	Satisfied	Fully Satisfied
Location of bank	0%	0%	12%	37%	51%
Bank employees' friendliness	0%	4%	19%	34%	43%
Bank regulations are in compliance with Islamic law.	5%	0%	14%	40%	41%
Conditions and terms for obtaining Islamic commodities	7%	8%	22%	34%	29%
range of goods and services provided	4%	5%	40%	25%	26%
The bank offers quick and effective services.	0%	7%	28%	41%	24%
Sharing of profits and losses	3%	0%	25%	49%	23%
E-banking service quality	17%	17%	15%	39%	12%

The table 6 offers an overview of the percentage distribution in the number of customers' responses, ranging from "Fully Satisfied" to "Fully Dissatisfied". A relatively large proportion of respondents show satisfaction levels related to conventional banking services. For instance, as much as 41% were "Fully Satisfied" and 34% were "Satisfied" about the friendliness of bank personnel. Meanwhile, 51% were "Fully Satisfied" about the location of banks and, therefore, convenience seems to be a vital determinant in this regard. However, areas like the quality of e-banking services revealed a possible area of improvement, with as little as 12% being "Fully Satisfied" and 39% satisfied. Such findings thus signify that although there are certain positive areas in the case of conventional banks, improvement in e-banking services is warranted to ensure that they better cater to customer expectations.

Customer satisfaction has been posited as a key concern in existing literature in the banking sectors, and it determines customer satisfaction, loyalty and friendly user towards products within the banking industry (Arasli et al., 2005). In the banking industry, customer satisfaction is a crucial indicator of how well a bank meets or surpasses its clients' expectations with regard to services. It includes all facets of the banking experience, from the ease of using digital banking options to the caliber of customer service. Prior research has also emphasized how crucial convenience and service quality are to how satisfied customers are with traditional banking services (Tharanikaran et al., 2017). Therefore, the outcomes as shown in Table 6 underline the significance of addressing customer needs and wants to ensure that the satisfaction levels increase to stay competitive in conventional banking services in Pakistan.

Based upon Tables 5 and 6, findings have been discussed further. Hence, while both Islamic and conventional banks show good customer satisfaction with many strengths in meeting their needs and expectations, a lot of places need improvement, especially in making banking services more quality and convenience to ensure that satisfaction levels are high. As a result, there is a need for continuous improvement in customer preference and concern by the banks to remain competitive in the ever-dynamic landscape of the banking industry. Future research is expected to further explore the influencing factors of customer satisfaction and hence devise strategies that may benefit the general banking experience.

2.2 Financial Analysis

The following indicators were cast in the comparative analysis between digital and Islamic banks, in all measures, of financial performance metrics in the table above. On the other hand, digital banks show a slightly higher ROA and significantly higher ROE compared with Islamic banks, meaning better efficiency in turning profits from the respective assets and shareholders' equity (Beck et al., 2013; Hasan & Dridi, 2010).

Table 7: Evaluating the Financial Performance of Islamic and Digital Banking in Pakistan

Performance Measures	Digital Banks	Islamic Banks	Comments
Profitability			
ROA	1.82 %	1.15 %	Compared to Islamic banks, digital banks have a marginally higher Return on Assets (ROA).
ROE	18.47 %	13.92 %	Higher Return on Equity (ROE) for digital banks indicates more effective use of shareholders' equity to generate profits.
COSR	45.62 %	52.80 %	The cost to income ratio (COSR) of digital banks is lower, which suggests that operating expenses are managed more effectively in relation to revenue.
Liquidity			
NetL TA	68.23 %	58.97 %	The significantly greater percentage of loans compared to total assets is indicated by digital banks' higher Net Loans to Asset Ratio (NetLTA).

Ld CDSF	87.54 %	78.29 %	Better liquidity management is suggested by digital banks' higher Liquid Assets to Customer Deposits and Short-Term Funds Ratio (LdCDSF).
NetLD&B	70.15 %	65.42 %	An increased percentage of loans in relation to total deposits and borrowings is indicated by digital banks' slightly higher Net Loans to Deposits and Borrowing Ratio (NetLD&B).
Credit Risk			
EQTA	15.82 %	12.43 %	Higher Common Equity to Total Assets Ratios (EQTA) for digital banks suggest greater protection against possible loan losses.
EQL	22.36 %	18.27 %	The Total Equity to Net Loans Ratio (EQL) of digital banks is higher, indicating a more robust safeguard against loan losses.
IMLGL	4.29 %	6.71 %	Better asset quality and credit risk management are indicated by digital banks' lower Impaired Loans to Gross Loans Ratio (IMLGL).
Solvency			
Bank-o-meter	79.46	62.81	Better solvency and financial stability are indicated by digital banks' higher scores on the Bank-o-meter model.

The COSR is lower for digital compared with Islamic banks, meaning more efficient management of operating expenses against income (Demirgüç-Kunt & Huizinga, 2010). Digital banks outperform in all liquidity measures compared to Islamic banks, as depicted by the higher net LTA, the LdCDSF, and the NetLD&B, and hence show better liquidity management.

Credit risk, on the other hand, shown by digital banks, has the upper hand through the higher EQTA and EQL; that is to say, there is a more massive insulation of the loan portfolio against possible loan losses and better cushion against loan defaults (Hasan & Dridi, 2010; Parsa, 2022). The second asset quality—IMLGL—is better for digital than for Islamic banks, therefore representing the lowest compelling asset quality and the best credit risk management.

Digital banks scored a higher score on the Bank-o-meter model, meaning that they have more solvency and financial stability in comparison to the Islamic banks (Demirgüç-Kunt & Huizinga, 2010). Digital banks are more cost-effective, showing a lower COSR compared to Islamic banks.

CONCLUSION:

In Pakistan's financial landscape, digital and Islamic banking have grown in importance. The term "digital banking" describes the provision of financial services via online platforms, mobile apps, and other digital channels like internet banking. Conversely, Islamic banking follows Shariah laws, which forbid paying interest (Riba) and making investments in companies that are deemed Haram (forbidden). Some of the most important insights into Pakistan's banking sector are shown by the empirical and theoretical study of digital and Islamic banks. Islamic banking that emerged to be a practical solution in the 1970s has been significantly growing globally is expected to reach four trillion dollars by the middle of this century. So the emergence of digital banks has been the establishment of separate divisions by some digital banks that offer Islamic financial products to provide services to this sector of consumers: Muslims who are interested in Islamic banking and non-Muslims who want to avoid elements of Riba and some other components related to profit and loss-sharing. The special laws in many countries, including Pakistan, have driven the Islamic banking industry forward, and since 2002, its growth has risen dramatically.

The table of comparison in the previous section shows different aspects of the operating mechanisms, performance indicators, and customer satisfaction of conventional and Islamic banks. The results of the comparison show that while digital banks also charge interest, Islamic banks have different regulations and operate under Shariah principles and do not indulge in any interest-based transactions. However, the kind of banking is also considered as relatively riskier and, therefore, has some unique regulations by the central banks to keep the viability of this kind of banking intact. Even though many challenges have to be faced, yet Islamic banking has become successful in Pakistan and worldwide. This shows that innovation and change are highly essential to fulfill the changing consumer demand and regulatory needs of society.

Comparing the performance outcomes and customer satisfaction of Pakistani Islamic and digital banks was the study's primary goal. The results of the customer surveys, ratio analyses, and financial statement analyses are crucial in highlighting the benefits and drawbacks of these two banking systems. While digital banks have proven to be more profitable and efficient, Islamic banks have shown strengths in liquidity management and asset quality. Meanwhile, optimism towards both banking systems was indicated by customer satisfaction surveys, with respondents fully satisfied with the dynamics of both systems and the offered services. With these areas of improvement identified—involving increased transparency, use of technology, and product offerings in their services—Islamic banks can compete effectively in the changing banking environment and meet the regulatory requirements stipulated with customer expectations maintained at full satisfaction. Digital banks, on the other hand, will build on these strengths of efficiency and innovation towards a more solid market share and increasing their customers' satisfaction level to full. Improving customer satisfaction in digital and Islamic banking necessitates a customized strategy that takes into account the particular requirements and demands of each industry. Financial institutions can greatly increase customer satisfaction and loyalty by emphasizing Shariah compliance and ethical practices in Islamic banking and convenience, security, and technological innovation in digital banking.

Theoretical Implications:

This cross-sectional comparison aims to bridge the theoretical knowledge gap regarding the banking system in Pakistan with respect to customer perceptions and performance of digital and Islamic banks. It describes how the emergence and growth of the banking industry were influenced by technological advancement, regulatory frameworks, and business ethics. The study's conclusions recommend that more research be done on the subjects of customer loyalty, advancements in technology, and service quality particularly as they relate to digital and Islamic banking. Such study would add to the body of knowledge already available on the topic and offer insightful recommendations for practice and policy.

Practical Implications:

Findings from this research will also help policymakers, regulators, and other professionals associated with the banking business in Pakistan. The study emphasizes the need to promote financial inclusion, business ethics, and technological advancement in response to the dynamic requirements of customers. Islamic banks can set themselves apart from digital banks by leveraging their risk-sharing models and ethical values to draw in more clients. In order to increase customer satisfaction and trust, digital banks can now invest in strengthening cybersecurity measures, enhancing customer service, and expanding digital infrastructure.

Future Avenues of Research:

Future studies could examine the effects of technological advancements, sociocultural variables, and regulatory reforms on the development and performance of digital and Islamic banking in Pakistan. This will help to better analyze the change in customer preference and behavior over a period of time with a longitudinal study. At the comparative level, cross-country and regional comparisons are seen as such avenues that will open up cross-cultural views on the success and acceptability of both digital and Islamic banking. Such avenues can be explored by researchers and lead to a deeper understanding of issues that can influence the success and sustainability of banking systems across different contexts.

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