

# E-Services Quality: An Analysis of Customer's Mobile Banking Services in Sharia—A Systematic Literature Review

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**Abstract**—In the current digital era, banking services have rapidly evolved thanks to technological advancements, such as mobile banking, which allows customers to conduct transactions easily and efficiently. Studies show that customer perception and satisfaction levels highly depend on service standards, available features, and user experience when using the service. Studies have shown that how customers feel about a service and how satisfied they are with it relies a lot on the quality of the service, the features it offers, and how easy it is to use. A big part of how well financial services on mobile devices do is how good digital services are, particularly in sharia banking that operates in accordance with Sharia principles and regulations. This research aims to gather systematic literature about the level of quality in mobile banking features provided by sharia-compliant banks. To comprehend the connection between customer experience and the effectiveness of e-services in mobile banking apps, the modified e-services quality model is essential. Finding the elements that affect the quality of e-services and consumer happiness, as well as investigating methods for enhancing digital services in compliance with sharia law, are the main goals of this study. It is anticipated that the findings of this study will offer more profound understandings of how Islamic banks may enhance the quality of their mobile banking services.

**Index Terms**—Systematic literature review (SLR), e-services quality, customer satisfaction, customer loyalty, mobile banking.

## I. INTRODUCTION

The transitions from conventional financial systems to digital has been accelerated by advancements in information and communication technology. The presence of ‘mobile banking’ services is one of the tangible

implementations of this change, allowing customers to conduct financial transactions quickly, securely, and conveniently through their mobile devices. Sharia banking services must adhere to Sharia principles such as justice, transparency, and the prohibition of usury, in addition to meeting technical requirements and user convenience [1].

In this instance, assessing the effectiveness of using mobile banking requires consideration of electronic service quality, also referred to as e-service quality. Reliability, usability, security, and user happiness are some of the criteria that are typically used to evaluate the quality of digital services [2]. But there hasn't been a firm consensus on which service quality assessment approach is best suited for Islamic banking.

Increasing consumer happiness requires offering top-notch technological services. Several studies indicate that reliability, responsiveness, and assurance significantly influence customer perception. According to Kassim's research, improving client retention in Islamic banks is mostly dependent on the degree of religiosity and service quality [3]. Focusing on these two aspects is considered capable of strengthening the bank's performance and providing a positive impact on the economy, especially in regions like Afghanistan. On the other hand, [4] stated that the quality of Islamic services, customer loyalty, and pleasure are strongly correlated with religiosity and emotional connection. Despite deep emotional bonds and religious convictions, their study highlights that Sharia-based service quality is still crucial for preserving client happiness and loyalty.

To address this gap in identifying, assessing, and synthesizing pertinent academic literature about the quality of electronic services (e-services) in mobile banking within the Islamic banking industry, this study uses a systematic literature review. This study's objective is to summarize the theoretical approaches and empirical findings that have been previously used, determine the most appropriate service quality evaluation model, and provide recommendations for the development and further research related to digital service systems based on Sharia principles.

This research's objective is to provide a methodical evaluation of the e-service quality in cellular-based Islamic banking services. This is because, although being a financial sector innovation, Islamic-compliant mobile banking has difficulties in improving the client experience. This study therefore seeks to provide a more thorough understanding of the factors influencing consumer behavior in the specified context.

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Using the systematic literature review (SLR) technique, the research processes and literature selection process were conducted methodically in compliance with the defined study protocol. Scientific articles addressing the calibre of digital banking services from 2017 to 2023 provided the data for the analysis. The researcher provides a thorough examination of the advancement, difficulties, and prospects in implementing Sharia-compliant mobile banking services through this study.

This study's primary contribution is the incorporation of the Sharia perspective into the e-service quality evaluation process, particularly through the religiosity dimension as a variable that reflects the spiritual values of muslim clients. Furthermore, this study offers data-driven insights that may be applied to the creation of mobile banking application services that better cater to muslim consumers' interests. Beyond the traditional strategy that concentrates only on short-term customer happiness, this research also provides ways for improving service quality that are intended to foster long-term loyalty.

## II. RELATED WORK

### A. How Customer Satisfaction is Affected by Electronic Service Quality

According to [5], elements of online banking services, such as website effectiveness, individual needs, ease of use, and site structure, positively affect customer satisfaction, which benefits customer loyalty. Reference [5] claimed that elements like website efficiency, personal demands, site layout, and simplicity of use influence user satisfaction with online banking services, which in turn influences client loyalty.

According to the findings of [6], [7], [8], and [9], service quality and satisfaction are positively correlated. Overall satisfaction is based on the Parasuraman-proposed standard of service [10]. This is one aspect of service that helps determine how satisfied customers are, claimed by [11]. Furthermore, [12] suggested satisfaction levels may be significantly impacted by service quality. Additionally, Shopee Food customers' loyalty may be positively impacted by excellent e-service. Reference [13] discovered that consumer happiness with electronic services is influenced by elements including fulfillment satisfaction, privacy, and website design. Additionally, they discovered that overall, customer behavior is correlated with the quality of electronic services.

Furthermore, [14] discovered that consumer satisfaction is impacted by the security, ease, and speed of access to mobile banking services. Nonetheless, [15] claimed the consumer happiness is unaffected by how simple mobile banking services are. According to the definition given above, there are varying views on the kinds of technology-based services—aspects that affect client happiness, including security, online effectiveness, and ease of use.

### B. How effectively an e-service meets client expectations has a big impact on its quality.

Perceived needs of the client, according to [16] and [17] the criteria or beliefs that are used to assess whether a service satisfies the demands of the customer. According to [18] and [19], high-quality electronic services include post-interaction services as well as all stages of the customer's involvement with the website. The general assessment of clients in a virtual

setting is a crucial component of the quality of electronic services, according to [20]. [21], [22], [23], and [24] assert that the expectation of the client has a significant impact on the quality of electronic services. Customers perceive electronic services to be extremely good when they meet or beyond their expectations. Consequently, meeting consumer expectations is essential to delivering top-notch electronic services.

### C. The Impact of Religious Belief on Electronic Service Quality

Reference [25] explained that religious, moral, and ethical principles that are studied, believed, understood, and practiced by adherents of the faith in the performance of worship and rituals, thus becoming a responsibility that must be carried out in daily life. Then [26] added religiosity is a form of internalization of religious values within the individual, where acceptance of religious teachings is reflected in beliefs, speech, and concrete actions in daily life. Meanwhile, according to [27], religiosity reflects an individual's level of faith and adherence to religious teachings and rituals, both in their vertical relationship with God and their horizontal relationship with others, as an effort to seek the meaning of life. Therefore, religiosity reflects an individual's perception of religion that shapes how they understand and practice religious teachings. In general, religiosity refers to the level of commitment, belief, and religious practices of an individual towards widely recognized religious principles, including belief in religious teachings, participation in religious rituals, and adherence to religious moral and ethical norms.

Meanwhile, [28] proposed that a customer's degree of religion influences improvements in the quality of electronic services. In a similar vein, [29], [30], and [31] believed that religion has an impact on customer behavior and service quality. Furthermore, [32] asserted that religiosity regulates the connection between consumers and their degree of contentment. Also, [33] emphasized that the level of service quality significantly affects how consumers perceive the value they get. Furthermore, according to [34], religion affects the quality of services. Thus, according to [30], Religion may affect how customer satisfaction and service excellence are related. Thus, it is evident that religion has a substantial influence on service quality.

## III. RESEARCH METHOD

The focus of this research is on e-services quality offered by Islamic banks. The rationale for choosing this research subject includes the following points:

- 1) The growing advancement of information technology and the internet has driven a transformation in service delivery methods, shifting from conventional to electronic formats. This shift is also reinforced by the 2012 government regulation on public service standards.
- 2) Since numerous models for evaluating e-service quality have been developed, it is essential to identify the most appropriate model specifically suited to the context of *Sharia-compliant banking services*.

In this study, The Comprehensive Review of Literature Technique is applied. All research that is pertinent to the research question, the phenomenon being studied, and the topic

of focus is found, evaluated, and interpreted using the SLR method [35]. The SLR process includes several steps, including searching literature, establishing inclusion and exclusion criteria, extracting data, and analyzing the results to discuss how the research topic was formulated.

The flow diagram in Fig. 1 shows how the PRISMA technique was used to perform the SLR procedure.

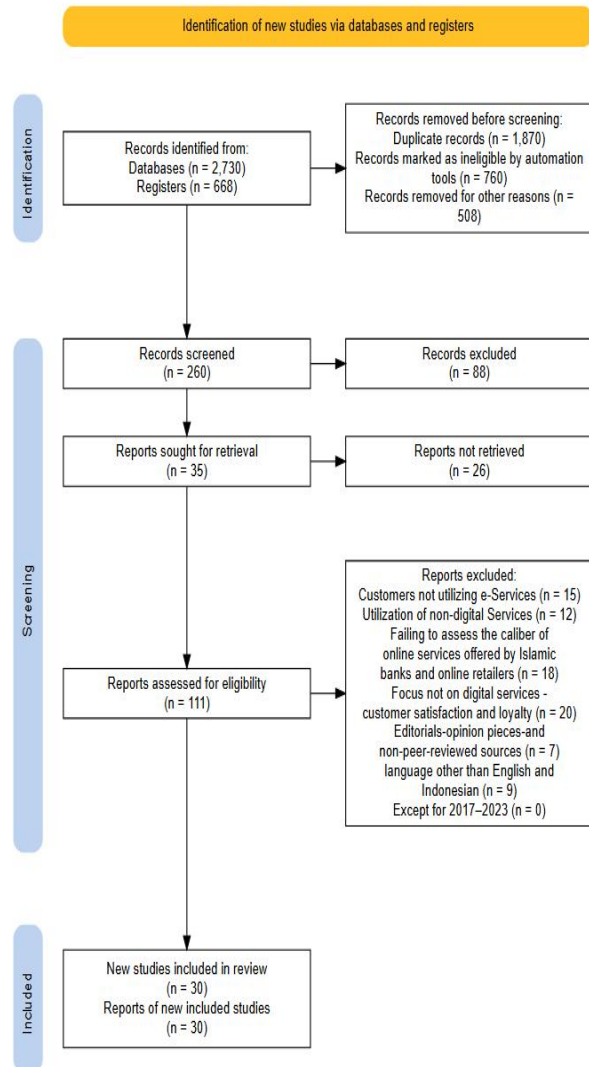


Fig.1. PRISMA flow diagram.

#### IV. RESULT

The systematic literature review's conclusions about the quality of electronic services in mobile banking use at Islamic banks are presented here.

##### A. Research Question

Research questions (RQ) are created to maintain the focus of the review. The PICOC[35] criteria are used to design the RQ, as described in Table 1.

Table 1.  
PICOC

Criteria	Description
Population	e-services, e-services quality
Intervention	Model, dimensions, factors
Comparison	Quality of electronic services on non-Islamic banks and e-commerce sites
Outcomes	Factors and structural elements that influence e-service quality requirements
Context	Islamic Bank, Consumer Retention and Consumer contentment

This research question has been designed in accordance with the demands of the chosen topic:

- 1) RQ1. Which elements of Islamic banks' client pleasure and loyalty are most influenced by the caliber of their electronic services?
- 2) RQ2. How do the quality aspects of e-services affect customers' propensity to utilize Syariah mobile banking consistently?
- 3) RQ3. Does the link between customer happiness and e-banking services quality affect consumers' decisions to stick with those services because of religious factors?

##### B. Search Process

The steps in the search process include selecting a digital library, formulating a search term, conducting a pilot search, refining the search term, and obtaining an initial list of primary studies from the digital library that matches the search term. Prior to starting the search, a suitable selection of databases must be made to increase the likelihood of finding highly relevant articles. The most renowned literature databases in the field are analyzed to identify the most diverse research. A broad perspective is necessary to cover the literature more extensively. The following is a list of the desired digital databases:

- Science Direct (<https://www.sciencedirect.com>)
- Scopus (<https://www.scopus.com>)
- Google scholar (<https://scholar.google.com/>)
- Research gate (<https://www.researchgate.net/>)

The following steps are used to create a search string:

- Choose search phrases from PICOC, particularly those related to population and intervention.
- Determine search phrases based on the inquiry.
- Look for search phrases in pertinent abstracts, titles, and keywords.
- Determine the search phrases' synonyms, alternate spellings, and antonyms.
- Use the Boolean AND and OR operators along with the indicated search keywords to create a search string.

This is the search term that was applied:

*e-Service Quality AND Bank AND Loyalty OR Customer Satisfaction*

Because changing the search term will greatly increase the amount of irrelevant research, the original search string was kept.

Each database's unique requirements are then considered while modifying the search term. Abstracts, titles, and keywords provide the basis for database searches. The search is restricted to the years 2017–2023. include two different kinds of publications: conference proceedings and journal pieces. The search is restricted to English-language publications.

### C. Inclusion and Exclusion Criteria

Table 2 presents the inclusion and exclusion criteria applied in selecting the primary studies.

Table 2.  
Table of Inclusions and Exclusions

Category	Inclusion	Exclusion
Population	e-Services are used by customers	Customers not utilizing e-Services
Intervention	Using Online Services	Utilization of non-digital Services
Outcomes	Assessing the quality of electronic services in e-commerce and Islamic financial institutions	failing to assess the caliber of online services offered by Islamic banks and online retailers
Context	Digital Services, customer satisfaction, customer loyalty	focus not on digital services, customer satisfaction, and loyalty
	Research reports, proceedings, and papers published in scientific journals	Editorials, opinion pieces, and non-peer-reviewed sources
Language	English or Indonesian article	An article written in a language other than English and Indonesian
Year of Publication	2017–2023	Except for 2017–2023

### D. Extraction of Data

The literature search procedure, which used basic studies as predefined search criteria, yielded 3,398 article documents from the database by looking for literature from 2017 to 2023. After filtering linked papers based on titles and abstracts as potential research candidates, the second procedure identified 111 article documents. In the end, 30 article papers that were carefully examined for their content were chosen as study candidates and used to respond to the enquiries.

Table 3.  
The Quantity of Articles in a Certain Source

Source	Discovered an article	Candidate Article	Specific Articles
Science Direct	168	29	3
Scopus	400	26	12
google scholar	2730	38	8

ResearchGate	100	18	7
Total	3398	111	30

Determining the strength of the conclusions reached and guiding the interpretation of synthesis findings are two uses for quality assessment of studies and assessments. Data synthesis is to collect information from chosen studies to address the research topic. Even if a single piece of evidence might not be very powerful, a collection of them might strengthen the argument. In this review, both quantitative and qualitative data were gathered. Data extracts pertaining to diverse research issues are synthesized using a variety of techniques. Narrative synthesis techniques are typically employed. The way the data is tabulated aligns with the questions. The distribution of software defect prediction techniques and their accuracy data are also shown more effectively with the use of several visualization tools, such as tables, pie charts, and bar charts. The following questions from the quality evaluation criteria will be used to evaluate the data found in this study:

QA 1. Did the article appear in any conferences or journals between 2017 and 2023?

QA 2. Is the e-services' quality mentioned in the journal or proceedings article?

QA 3. Is client contentment, loyalty, as well as e-services qualities mentioned in the journal or proceedings article?

Each of the questions above will have an answer score derived from the article.

- Y (Yes): for the topics and techniques covered in the journal article between 2017 and 2023, and
- N (No): for problems and non-written techniques.

### E. Quality Assessment

The process of gathering research data is called data collecting. Both primary and secondary data were collected for this investigation.

#### 1) Primary Data

Primary data is information that has been gathered for purposes through surveys, interviews, and observations. Journals from Science Direct, Scopus, Google Scholar, and ResearchGate served as the main source of data for this study for the following reasons:

- Fully equipped amenities.
- Because the year range may be changed to suit the demands of the researcher, the data is simple to find.
- The data that is shown can be changed to suit requirements.

#### 2) Secondary Data

Secondary data is used to supplement primary information; if the original information is simply an abstract, additional information is required to complete the primary information. Google is used to generate secondary data. Several steps were taken to acquire data for the study, including:

- An observation  
This step involves gathering data by directly seeing four sources: <https://www.sciencedirect.com>, <https://www.scopus.com>, <https://scholar.google.com>, and <https://www.researchgate.net/>.
- Literature review

This phase involves doing SLR Method data review research on the publications sourced from the four previously stated sources.

- Record-keeping  
It is the phase in which Mendeley and Zotero store the gathered data.

These are the procedures for gathering data, which were gathered from observation to documentation using the <https://www.sciencedirect.com> source.

1. Start by going to <https://www.sciencedirect.com>.
2. Type "e-Services Quality" into the search bar.
3. Select the years 2017–2023 under the Filter by Year option to identify the source years for the "e-Services Quality" concern.
4. Select research Article from the Filter by Article Type menu, and then Open Access from the Access Type menu. Titles, publications, years of publication, open access, research articles, and author names will appear after selecting Search. As seen in Fig. 2, the Science Direct search method yielded 168 papers.

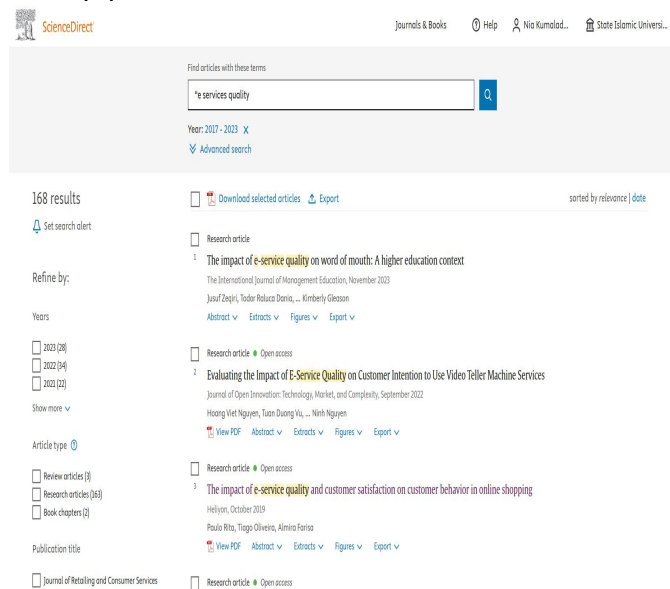


Fig.2. Results for journal searches on the ScienceDirect website using the term "E-Services Quality".

5. Put the terms "e services quality AND bank AND loyalty AND customer satisfaction" into steps two and three again.
6. Select the Research Article filter type under Article and the Open Access type under Article. Titles, publications, years of publication, open access, research articles, and author names will appear after selecting Search. Figure 3 illustrates the 29 journals that the Science Direct search procedure produced.
7. Additionally, the search for data on the websites <https://www.scopus.com>, <https://scholar.google.com/>, and <https://www.researchgate.net/> carries out steps 1–6 of data gathering, from observation to documentation.

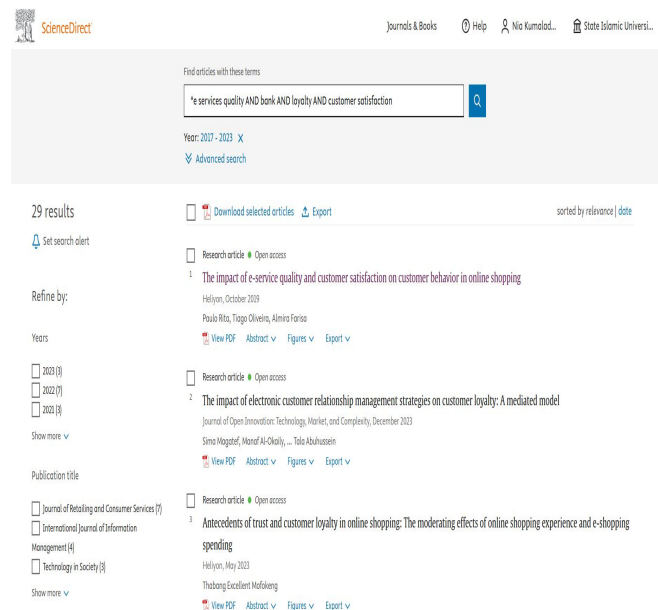


Fig.3. The ScienceDirect website's search results for papers that contain the keywords "e services quality AND bank AND loyalty AND customer satisfaction".

## F. Data Analysis

At this point, an analysis of the data gathered will reveal:

- Important factors influencing the quality of digital services (with reference to RQ1).
- Factors influencing how successful e-services are (with reference to RQ2).
- The impact of religious convictions on the effectiveness of online banking services and customer satisfaction (with reference to RQ3).

## G. Deviation from Protocol

During the investigation, the researcher identified a number of protocol violations that needed to be adjusted

- The presented issue is addressed in this study, which also identifies the critical factors and dimensions affecting the quality of electronic services.
- Journals are gathered to answer and ensure quality and provide the necessary information; and
- The description of the SLR in this research is expanded.

## H. Discussion

Table 4 displays the results of this investigation's search and filtering of publications regarding e-service quality.

Table 4.  
E-Services Quality Model

No	E-Services Quality Model	Total Dimension	Dimension/ Factor	ID Paper
1	Innovation in E Service Quality	6	Usability, design aesthetics, processing speed, interactive responsiveness, customization and personalization	[36]

2	E-Service Quality Model by Zeithmal, et. al	5	Efficiency, reliability, accountability, commitment fulfillment, secrecy Website design, reliability, responsiveness, assurance (security and confidentiality), empathy (personal handling and privacy)	[10], [16]	11	Carter Model	5	Compliance, assurance, responsiveness, tangibles, empathy, reliability	[28]
3	SERVQUAL Model	5		[37], [31]	12	Model of Service Quality for Customer Loyalty and Satisfaction	7	Efficiency, dependability, timeliness, straightforwardness, variety of products, data security, and cost.	[57]
4	E-Service Quality Model by Zeithaml et.al	11	Dependability, timely assistance, accessibility, flexibility, easy-to-use navigation, operational efficacy, credibility, data security, platform aesthetics, and customized user experience	[38]	13	Model of E-Service Quality for Customer Satisfaction	6	Ease of use, reliability, responsiveness, assurance, empathy, tangible	[58]
					14	Model of E-Service Quality for m-Banking Customer Satisfaction	6	Efficiency, reliability, responsiveness, assurance, empathy, tangibles	[59],[60]
5	Esqual	4	Efficiency, system availability, fulfillment, privacy	[38], [39]					
	E-Recs-QUAL	5	Responsiveness, compensation, contact, perceived value, loyalty intentions						
6	Service Quality Model	7	Accessibility, compliance, system availability, privacy, trust, customer satisfaction, loyalty	[40]					
7	The E-Service Quality Aspects and Technology Self-Efficacy Characteristics	3	Computer self-efficacy, internet self-efficacy and information technology self-efficacy	[41]					
8	Web Service Quality	4	Security of website, special deal, convenience of website, booking flexibility (new factor)	[42]					
9	Service Quality Model on Customer Perceived Value and Satisfaction	5	Tangibility, reliability, responsiveness, assurance, empathy	[43], [44], [45], [46], [47], [48], [49], [50], [51], [52], [53], [54], [55]					
10	E-Service Quality Model	4	Website structure, performance, individual needs, and ease of use	[56]					

**RQ1.** Which elements of Islamic banks' client pleasure and loyalty are most influenced by the caliber of their electronic services?

At Islamic banks, the degree of client pleasure and loyalty is strongly influenced by the calibre of digital services. The guarantee of the security of financial and personal data, the speed of transaction processes, the responsiveness to customers' digital demands, and the simplicity of using the bank's websites and application platforms are important influencing factors. Enhancing these elements' quality will boost digital client happiness, which in turn will be a crucial component in building loyalty [59]. Additionally, the degree of client confidence in the digital system enhances the bank-customer connection, particularly when it comes to the experience of using secure, dependable, and user-friendly mobile banking services [55]. To preserve client satisfaction and loyalty in this digital age, Islamic banks must strategically build effective, safe, and user-friendly digital technology.

**RQ2.** How do the quality aspects of e-services affect customers' propensity to utilize Sharia mobile banking consistently?

Customer behaviors about the regular use of sharia mobile banking are significantly influenced by the calibre of electronic services. The e-service quality hypothesis by [10] stated that aspects including simplicity of use, security, system dependability, and efficiency have a big impact on how people see digital services. According to the Value-Percept Disparity concept, client satisfaction will rise when the service can match or even above their expectations. The e-trust theory also highlights how satisfying user experiences and safeguarded data may increase system trust, which in turn promotes steadfast use and loyalty[2]. Perceptions of the convenience and advantages of services also influence favorable attitudes towards the use of technology, particularly mobile banking,



according to the Technology Acceptance Model (TAM) [61]. By combining these four hypotheses, it becomes clear that customer pleasure and trust are two indirect ways that the quality of digital services influences consumer behavior, which in turn increases the likelihood that they will regularly use Sharia mobile banking [56].

Table 4 presents the main conclusions on e-service quality across several dimensions and aspects, based on the analysis of the article and finished study on the topic. It also answers study questions 1 and 2. Zeithaml, Parasuraman, and Malhotra's study concentrated on the quality of e-services in the banking industry [10], [16] pricing transparency, website design, responsiveness, accessibility, flexibility, ease of navigation, efficiency, assurance and confidence, security and privacy, and customization and personalization are among the eleven essential elements they highlighted. Additionally, they added two components of quality in service are quality of electronic services (E-S-Qual) and quality of electronic recovery services (E-RecS-Qual).

Five criteria are used by Zeithaml, Parasuraman, and Malhotra to evaluate the quality of e-services: tangibles, responsiveness, reliability, assurance, and empathy [10], [16]. Researchers also talk about five important aspects that are strongly related to consumer happiness, loyalty, and trust: tangibles, responsiveness, resilience, assurance, and empathy. Numerous studies related to e-service quality are also conducted in the general and Islamic banking sectors, as well as in other industries with various dimensions. However, the study that is used to investigate the link with e-service quality uses five factors: physical evidence, responsiveness, dependability, assurance, empathy, and customer satisfaction and loyalty focused mostly on banks and syariah. Customer happiness and the quality of e-services are significantly impacted by customer religiosity [31].

**RQ3.** Does the link between customer satisfaction and e-banking services quality affect consumers' decisions to stick with those services because of religious factors?

The relationship between customers' perceived level of happiness and the quality of digital services has a significant impact on their decision to keep using mobile banking services. Religious considerations have a significant role in influencing customer choices and behavior in the field of Islamic banking. The quality of electronic services and the dimension of religiosity not only influence how customers see services but also play a decisive role in their decision-making process, according to a number of earlier research [62], [63]. Digital banking's excellent customer service continuously raises client satisfaction, which in turn encourages patronage of financial institutions[64]. Both traditional and Islamic banking systems have demonstrated the relevance of the relationship pattern between service quality, satisfaction, and loyalty [65]. Both traditional and Islamic banking systems have demonstrated the relevance of the relationship pattern between service quality, satisfaction, and loyalty [66]. However, adherence to Islamic principles offers a substantial extra impact in the setting of

Sharia. Although its influence on the impression of service quality is not always significant, some research suggests that religion can have a direct impact on behavioral intentions and loyalty. Because Islamic e-banking services are in line with their moral and spiritual values, customers who place a high importance on religion are more likely to stick with them than to stop using them for technical reasons. In this instance, trust serves as a crucial link between loyalty and religion. Customers' commitment to keep using the services is strengthened when they feel that the bank's operations are consistent with their religious beliefs. Therefore, a thorough grasp of the connection between digital service quality, customer satisfaction, and religious principles must serve as the foundation for initiatives aimed at fostering loyalty and the ongoing use of Islamic banking services.

## V. CONCLUSION

The following are some inferences that can be made considering the research findings. According to the findings of a SLR of several journals and conferences published between 2017 and 2023, the five primary elements that dominate the e-Services Quality model are assurance, responsiveness, empathy, physical features (tangibles), and dependability. The way that consumers see Islamic mobile banking services is largely influenced by these five criteria. Incorporating these components not only makes the service more convenient to use, but it also helps boost client retention. Therefore, in the Islamic banking context, customer happiness and loyalty levels are significantly influenced by the quality of electronic services.

The study's most prominent domains are also the banking and industrial sectors, especially when it comes to examining the connection between client loyalty and contentment with the calibre of electronic services. According to this study, enhancing the calibre of digital services—particularly those that adhere to Sharia law—is a crucial tactical move that will sustain client involvement and steadily foster enduring loyalty.

Additionally, the aspect of religiosity, which influences customers' decisions to continue using these services because they are perceived as being in line with their spiritual values, strengthens the relationship between customer satisfaction and the quality of e-banking services.

Recognizing this study's several limitations is essential. Since e-service quality is the primary emphasis, other elements like technology, data security, and user experience were not thoroughly examined. Furthermore, most of this study's research still uses the ServQual paradigm, which focuses on five important dimensions: tangibles, responsiveness, reliability, assurance, and empathy.

This model tends to ignore other aspects or revisions that are more pertinent in the digital age. Other sectors, including education, health, and public services, have not gotten much attention since the study objects are still restricted to the banking and industrial sectors, highlighting how e-service quality, customer happiness, and customer loyalty are all related.

Future work must create and examine e-service quality dimension models that better reflect the contemporary digital environment, including interface design, system availability, security and privacy, and personalization. Using cutting-edge technology components like blockchain, chatbots, artificial intelligence (AI), and big data, future studies might examine how e-service quality affects consumer happiness and loyalty.

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