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The impact of e-banking service quality on the sustainable customer satisfaction: Evidence from the Saudi Arabia commercial banking sector

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A B S T R A C T

The banking sector around the globe has witnessed a huge development in its services and products. The electronic banking services are considered as a competitive advantage for the banking sector. The purpose of this paper is to evaluate the effectiveness of e-banking service quality on customer satisfaction in the context of Saudi Arabian commercial banks. Both quantitative and qualitative research methods were used in the study. A sample of 308 customers from the banking sector participated in this study. The researchers have developed a self-structured questionnaire to collect the relevant data. In addition, secondary data was gathered from published sources, including websites, journal papers, and publications of the chosen commercial banks. The findings of this study show that the eight service quality dimensions; reliability, transactional efficiency, customer support, service security, ease of use, performance, satisfaction with service quality and service content have a significant impact on the level of user's satisfaction with e-banking in the Saudi Arabian commercial banks.

1. Introduction

Depending on their comprehension and use of the term, various researchers have defined electronic banking in various ways. The phrase “e-banking”, also known as “online banking”, refers to the modern financial system (Chaimaa, Najib, & Rachid, 2021). E-banking is the practice of carrying out banking operations via the internet, such as money transfers, bill payments, checking and savings account balance checks, mortgage payments, the purchase of securities and CDs, etc.

E-banking services were introduced by Saudi Arabia's commercial banks as a means of assuring service excellence by lowering costs, waiting times, and errors while boosting client happiness. Even so, there aren't many studies available in Saudi Arabia that cover the whole range of E-effects of banking on consumer satisfaction. So, further research is still needed to fully comprehend how the quality of the E-banking services affects consumer satisfaction in the Kingdom of Saudi Arabia. The major goal of this study is to determine the aspects of electronic banking services that have an impact on Saudi Arabia's commercial banking sector's customer satisfaction. This study aims to demonstrate how customer happiness in Saudi Arabia is influenced by the quality of e-banking.

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The finding of this study will be extremely useful to the management of Saudi Arabia's commercial banks, as they will aid in identifying the majority of the bank's issues as well as customers' complaints. This will go along the way toward assisting banks in achieving their stated and desired goals, as well as increasing shareholder wealth in the long run. Moreover, the study will assist bank executives and policy makers to understand electronic banking as a product of electronic commerce in order to make strategic decisions, allowing the banks clients to have an enabling environment when utilizing their e-banking services.

2. Literature Review

2.1 The electronic banking service and internet banking

Electronic banking technology is considered as one of the most important innovations that affect people as well as business life. During 1970, self-service technologies were used in the finance sector when the Automated Teller Machine was used by many banks (Hoehle, Scornavacca, & Huff, 2012). This leads to a new opportunity for the development and growth of e-commerce as well as e-banking (Ngai & Gunasekaran, 2007). E-banking services are banking services delivered over the internet (Abdulhadi & Ahmad, 2021). Electronic services have become the main pillar for Saudi banks because of their ability to improve speed, performance, and productivity. This concept has gained more strength especially with the induction of the young leadership in KSA (Thompson, 2017).

Banks used to solely offer checking accounts as part of their online services, but more recently the whole spectrum of banking services has been added. In today's world, almost all services that are available over the phone or at a branch can also be accessed online. Technology advancements enable banks to provide "branch-based" services online in addition to others. E-banking broadly speaking refers to the use of technology to carry out banking transactions efficiently (Ghali, 2021). Delivering high-quality services can help banks keep their customers by ensuring that they are happy with the services and products they offer. Understanding the online service quality dimensions is necessary for providing high-quality online services. This is crucial, and efforts must be made to raise the caliber of online services in order to acquire a competitive edge (Bakri, 2017). Companies that have had experience and success with providing e-services are beginning to understand that, in addition to having a website and having a low price, the quality of the electronic service is a crucial success or failure component. According to A. Alghamdi, Elbeltagi, Elsetouhi, and Yacine Haddoud (2018), one of the reasons for the increased relevance of e-services quality is that clients can compare various service offerings online much more easily than they can through traditional channels. Customers of online services therefore have higher expectations for the quality of the services than those of traditional providers.

The need of providing high-quality e-services has been acknowledged by many businesses (Muzafar & Jhanjhi, 2020), but there is still confusion about how to define, identify, and assess the quality of online services. Traditional services can be measured using a variety of models and techniques, but research on the quality of services provided online is scarce (Alalwan, Baabdullah, Rana, Tamilmani, & Dwivedi, 2018). In recent years, there have been two distinct methods for researching e-services. According to the first strategy, e-service quality should be studied using the already-developed service quality theory. The other strategy proposes the creation of new e-service categories and the study of e-service quality through empirical research. The Saudi Arabian Central Bank authorized commercial banks to provide their clients with Internet banking services in June 2000. The banking industry has evolved as a result of internet banking, which is expanding faster than other e-commerce industries and offers interaction, convenience, low cost, time savings, and a high degree of personalization.

A system known as online banking allows users to conduct financial transactions from their homes via the internet (Sasono et al., 2021). Internet banking has made it possible to conduct standard banking transactions such as accessing savings accounts anytime, keeping track of their account balance, getting e-statements, paying bills online, shopping online, transferring funds, and much more in a matter of clicks and minutes. Internet banking allows individuals and organizations to access bank services without the simple dependence over the bank's physical location or premises. The success of internet banking benefits end customers by enabling quick access to information and increasing customer satisfaction. It also benefits Saudi Arabian banks by achieving increased efficiency and improved productivity. The use of internet banking is expanding in the monarchy.

2.2 The Automated Teller Machine

A computerized telecommunications device known as an automated teller machine (ATM) allows customers of a financial institution to conduct financial transactions in public without the assistance of a human clerk or bank teller (Abdullai & Nyaoga, 2017). A computer terminal that is activated by a magnetically encoded card and enables users to perform operations that they typically perform in teller windows, such as withdrawals, deposits, money transfers between bank accounts, bill payments, statement printing, and other operations, is known as an ATM. Madani and Faleel (2021). This electronic banking device is used by banks in all the worlds and particularly in Saudi Arabia to acquire a competitive advantage. During banking hours, the combination of technology and human tellers allows the bank to be more productive. It also saves time in customer

service delivery because clients do not have to stand up in banking halls, and this time may be invested in more productive activities (Abor, 2005; Wachira, 2013).

The Mobile Banking

By the year 2030, Saudi Arabia wants to become a cashless society. As a result, almost every bank doing business in the Kingdom offers digital banking services in the form of a Smartphone app. In fact, it anticipates that over the course of the next ten years, 70% of all payments in the Kingdom will be digital, as opposed to only 18% in 2017.
Customers can conduct both basic (such as balance checks and fund transfers) and more complex (such as stock trading and portfolio management services) banking activities using mobile devices thanks to mobile banking (Anyasi & Otubu, 2009; Barnes & Corbitt, 2003; Laukkanen & Lauronen, 2005). Today, customers in Saudi Arabia can utilize mobile banking to conduct a variety of different transactions (Keskin, Caramancion, Tatar, Raza, & Tatar, 2021).

The Mobile Banking

Banks in Saudi Arabia offer financial intermediation, consulting, and agency services that are evolving over time. Services differ from products in that they are intangible because they cannot be seen, touched, or felt; they are perishable because we cannot keep them; they are indivisible because they are linked to a service provider; and they are insubstantial because of heterogeneity. In comparison to physical products, researchers claim that it is more difficult to quantify the quality of services (Albarq, 2023; Johnson & Nilsson, 2003; R. L. Johnson, Tsiros, & Lancioni, 1995; Lehtinen & Lehtinen, 1991). Customers are more likely to purchase things when they are physically present because of their aesthetic qualities. The fact that we cannot see, touch, or feel services makes them intangible. The main factor influencing consumer satisfaction and purchasing intention in the industrial and service sectors is quality improvement (Taylor & Baker, 1994).

The phrase “service quality” can also be defined as “fulfilling the expectations and needs of the customers in accordance with their perceptions”, and it can be assessed using ten key criteria: “communication”, “credibility”, “security”, “tangibles”, “reliability”, “responsiveness”, “competence”, “courtesy”, “understanding”, and “access” (Berry, Parasuraman, & Zeithaml, 1988). As a result, Saudi Arabian businesses must work to enhance their offerings to satisfy the needs and preferences of their patrons. Customer happiness and behavioral intent, which in turn contribute to an organization's profitability, are both commonly accepted as being dependent on service quality (Olorunniwo, Hsu, & Udo, 2006; Qin & Prybutok, 2009; Wang & Lo, 2002). It has been discovered that businesses' ability to acquire competitiveness, company development, and growth in the highly competitive marketplace depends critically on both the quality of their services and how satisfied their customers are with them.

Any good or service's capacity to live up to consumer expectations and needs, such as a certain set of features, traits, or qualities, is referred to as quality. In today's cutthroat business market, firms must be able to meet or exceed client expectations to expand and remain viable (Hanaysha, Al-Shaikh, Joghee, & Alzoubi, 2022; Trivedi, Trivedi, & Goswami, 2018). Companies must learn how to do this. Many studies have discovered a connection between the level of client happiness and the service quality provided by banks. According to reports, quality is seen as a key element in relation to acquiring and keeping customers. Concentrating on service quality results in differentiation, which strengthens the organization's competitive position over time (Sun & Pang, 2017). To create mechanisms to enhance or sustain the level of service they offer to their clients, it is crucial for a business to clearly understand the customer's perceptions of service quality (Mmutle & Shonhe, 2017). Customer happiness and service quality have now become crucial factors in any service organization's ability to survive. The level of service received is seen as a key indication of client satisfaction. Due to rising competition, service quality gained appeal among professionals and academics. To achieve a competitive advantage, maintaining long-term relationships with clients is very important. The gap between what customers anticipate from a service before using it and what they think of after using it is referred to as service quality. Regarding relevance and how they affect a customer's level of satisfaction, quality elements differ from one another. It was discovered that some actions, such quickening information processing, had made customers happy. Like this, discontent decreased as equipment reliability increased. Yet, it was noted that customers' comparisons of their expectations for a service interaction with their views of the encounter determine service quality (Mmutle & Shonhe, 2017).

Today, it may be widely acknowledged that intense competition in terms of both quantity and quality makes it very challenging for a business to set itself apart from its rivals. Academics and professionals have paid a lot of attention to service quality, which is described in service marketing literature as the customer's overall opinion of a service. The foundation for measuring service quality is the customer's expectation since quality is high when performance meets or exceeds expectations, and quality is low when performance falls short of expectations (Akbaba, 2006). According to Grönroos (1984), perceived service is the result of how the consumer perceives the service aspects, which can be both technical and functional in character. It is crucial to recognize that service quality is not only evaluated in terms of the final product but also in terms of how it is provided throughout the service process and how it ultimately affects consumer views. According to Albarq (2021), Maddern, Maull, Smart, and Baker (2007), Yoo & Park (2007), and others, service quality is strongly correlated with customer satisfaction, financial performance, manufacturing costs, customer retention, customer loyalty, and the effectiveness of marketing

strategies. Service-related businesses view service quality as a crucial element of their marketing strategy (Samat, Ramayah, & Mat Saad, 2006). Organizations can achieve higher levels of customer satisfaction and service quality through service quality, and they can keep a steady competitive advantage.

2.3 E-banking Service Quality Dimensions

2.3.1 Reliability

The variable of reliability is what is being the major factor that should be found in an organization. It is the capacity of a service organization to perform a service truthfully, which means it should provide the service on time accurately and dependably (Parasuraman, Berry, & Zeithaml, 1991; Yi, 2014). The Saudi government is putting all its efforts into ensuring to provide the reliability factor to the investors, local and international, which are willing to join the digital and E-banking drive of the young leadership of the kingdom. Reliability is a key factor in service quality that can affect customers' satisfaction directly (Famiyeh, Asante-Darko, & Kwarteng, 2018). This is especially with the banking sector operating in Saudi Arabia. It is ensuring customers bring their loyalty towards the system. High reliability will improve the customers' satisfaction (Sullivan, Suddeth, Vardell, & Vojdani, 1996). According to Lone et al. (2017), there is a positive correlation between reliability and customer satisfaction. They also discovered that reliability includes delivering services on time, handling customer service issues with dependability, performing services correctly the first time, and maintaining an error-free record.

H_1: *Reliability associated with E. Banking Services Quality.*

2.3.2 Transactional Efficiency

The capacity of a customer to visit a website, identify the desired product and information associated with it, and check out quickly is known as transactional efficiency (Jehan & Ansari, 2018). The Saudi financial system is putting efforts in improving digital infrastructure. In this regard, it has arranged infrastructure and investment conventions. This practice is underway now on a yearly basis. Moreover, the finance ministry has introduced the Saudi Arabian Riyal Interbank Express (SARIE) system which is all about making the system efficient and effective for the investors, bank itself and the clients (Ali & Salameh, 2023). It is a state-of-the-art payment and settlement system which has connected the overall banking system in KSA for swift operations and their completion. The performance of online banking can also be interpreted in terms of transactional efficiency based on the following factors: current information, response time, download time, comprehensive product information, tutorial/demonstration, and help function (Nochai & Nochai, 2013). Customers' satisfaction is significantly influenced by transactional efficiency, and there is a positive correlation between these two variables. This variable is being strengthened by the SARIE system and will continue to be strengthened by future applications of digital solutions (Sari, Lekidis, & Butun, 2020).

H_2: *Transactional Efficiency associated with E. Banking Services Quality.*

2.3.3 Customer Support

Customer support includes both pre-sale and post-sale assistance. In Saudi Arabia, the complaint system in the financial institutions is quite strong (AlGhamdi, Drew, & AlFaraj, 2011). Saudi Central Bank otherwise known as SAMA is a regulating authority which keeps everything in check and ensures customers' concerns are addressed properly (Ajina, 2019). Before customers make judgments, the organization should provide some assistance to entice them and make them feel at ease. After customers buy the services or products, the company should solve the problem that customers meet or respond to customers' questions immediately and according to the problems. Support is vital in the e-banking industry (Toor, Hunain, Hussain, Ali, & Shahid, 2016). Because not everyone is computer savvy, they will require instruction. In addition, even if someone is computer knowledgeable, they may still have difficulties and require assistance, or they might have queries waiting to be answered after using internet services. High client satisfaction will increase with a similar outcome that they support. Customer service and customer satisfaction are positively correlated (Hassan, Nawaz, Lashari, & Zafar, 2015; Susskind, Kacmar, & Borchgrevink, 2003).

H_3: *Customers Support associated with E. Banking Services Quality.*

2.3.4 Service Security

For every business, safety and security are two very important factors (Hilliard & Baloglu, 2008). In the Kingdom of Saudi Arabia, service security is considered a key to success for any financial institution. E-banking is secured with proper and swift encryption methods. Transactions details and personal information are secured in any digital way possible. A sense of security and credibility is conveyed by the providers according to the term "service security" (Akman & Mishra, 2017). All of the components and instruments employed by the reputable national banks display this security element. It involves a system that guarantees the client feels secure in their transactions and is the freedom from risk and uncertainty for the customer. Additionally, it gives customers a feeling of confidentiality by letting them know that their access to the system and any transactions made therein are secret. People feel more at ease using the system because they have the assurance that it is safe from hackers and outside intrusion (Nawrocki, 2011).

H_4: *Service Security associated with E. Banking Services Quality.*

2.3.5 Ease of Use

This variable deals with the ease of using digital means of doing business and conducting transactions. The Kingdom's drive to digital evolution is all about making people familiar with the technology and internet so that they could easily use it (Muzafar & Jhanjhi, 2020). The website's navigational capabilities, such as how the links are structured, whether they are attractively presented, and how easy it is to navigate them, are some of the characteristics that fall under the category of technology usability. The website address was made to be simple to recall. The Saudi financial institutions are also considering other elements, such as how simple the website is to use and how simple the terms of using it are (Mishra & Singh, 2015).

H_5: *Ease of use associated with E. Banking Services Quality.*

2.3.6 Performance

The primary operating characteristic of the product, which is based on a functional requirement, is referred to by this variable. Performance refers to how well each bank's internet banking services and features operate. Researchers claim that the Saudi banking industry's performance efficiency is strengthening. (MU HASSAN, KHAN, AMIN, & KHOKHAR 2018).

H_6: *Performance associated with E. Banking Services Quality.*

2.3.7 Service Content

This variable is about the type of content that the bank is supposed to provide to its client. In KSA, the banks keep on updating their websites with latest messages and statements and even continue to send messages on various social media apps to keep them updated (Baabdullah, Alalwan, Rana, Kizgin, & Patil, 2019). The customers should be updated regularly with content. This is what is happening in Saudi Arabia. For internet banking service, it means the content that banks provide to customers through websites (Abualsauod & Othman, 2020). High value-added content is essential and most of the banks in KSA are very well conscious of this fact.

H_7: *Service Content associated with E. Banking Services Quality.*

2.3.8 Satisfaction with Service Quality

Superior information systems and other marketing services aimed at obtaining consumer satisfaction are the primary elements utilized to assess a website's performance. Customer satisfaction is the evaluation of each experience related to product purchase, while customer-perceived service quality is the assessment or attitude related to service excellence in terms of comparative offerings, it frequently produces positive outcomes, including an increase in customers retention, satisfactory feedback on various online media platforms, and product recommendations to new users (Zeithaml, Berry, & Parasuraman, 1993).

H_8: *Satisfaction with service quality associated with E. Banking Services Quality.*

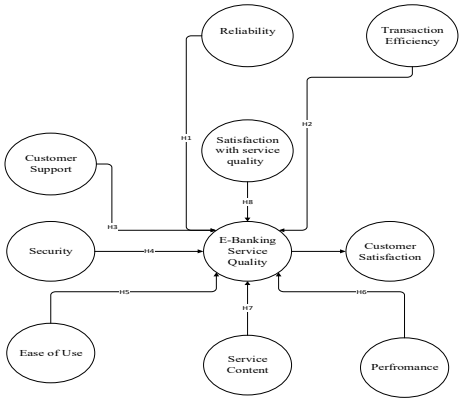

Fig. 1. Conceptual framework and hypotheses

3. Methodology

3.1 Survey Instruments

The study's nature was both descriptive and explanatory in order to solve the problem statement. The descriptive approach was used to determine the relationship between dependent and independent variables, and it is beneficial for independent variables, and it is beneficial for identifying variables and hypothetical constructions. It can also be used to test theory or model indirectly. Explanatory research design was used to determine the cause and effect of Electronic Banking service quality on customer satisfaction, which is appropriate for the study's goal. Explanatory research method is also a good fit to assess the effect of the independent variable (reliability, transactional efficiency, customer support, service security, ease of use,

performance, satisfaction with service quality and service content) on the dependent variable (customer satisfaction). The questionnaire survey approach is used in this investigation. The study's questionnaire has been roughly divided into two pieces. The demographic section and the size of the e-banking services part are two examples. Variables such the respondent's age, gender, income level, occupation, and educational status were questioned within the demographic portion. Eight additional sub-sections have been added to the section on e-banking services. The eight subsections were further divided into the several e-banking service dimensions described in the conceptual framework. These subsections include security, usability, performance, transactional effectiveness, customer support, and satisfaction with the quality of the service. The eight subsections might be used to create a five-point Likert scale on which respondents could rate how much they concur or disagree with specific claims. The "strongly disagree" (1) and "strongly agree" (5) evaluations on the Five-Point Likert scale were applied.

3.2 Data Collection/Sample

This research uses primary data which collected from the Customers of Alrajhi Bank, Alinma Bank, Bank Albilad, Bank Aljazira, Riyad Bank, SABB Bank, Saudi National Bank, and Saudi Investment Bank provided the primary data for this study. Structured questionnaires were used to collect the required data from the sample respondents. Also, the research was aided by the secondary data, which was also used to learn about the outcomes of other field researchers (empirical study). The study's associated ideas, such as definitions of e-banking, its history, and its benefits, would be gathered from these secondary sources, which include library books, journals, business newspapers, and magazines. Saudi Arabians were the respondents selected for this study, and a total of 308 people were included in the sample size. The respondents were from various socioeconomic groups and geographic regions, and they had accounts with a variety of financial institutions, including Riyadh Bank, Alrajhi Bank, Alinma Bank, Bank Albilad, Bank Aljazira, SABB Bank, Saudi National Bank, and Saudi Investment Bank. The sampling method we utilized in this study is "convenient" due to time restrictions. The participants are being given a series of inquiries, and those with accounts in various banks are being distributed. Google forms were created electronically as well, and the provided link was sent over Telegram and WhatsApp. To comprehend the bank's preference, a set of questionnaires is being established and separate participants from distinct ages, genders, qualifications, salaries were asked to label their preference on a 5-point Likert scale (Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree).

4. Results

The demographic analysis in Table 1 shows a descriptive data regarding respondents' gender, age, education level, occupation, monthly income level, frequency of E-banking services usage and the length of E-banking services usage could be analysed as follows.

Table 1
Demographic Profile of Respondents

Item	Category	Frequency	Percent
Gender	Male	131	42.5
	Female	177	57.5
	Total	308	100
Age	18-25 Years	130	42.2
	26-35 Years	128	41.6
	36-45 Years	34	11.0
	46-55 Years	11	3.6
	55 and above	5	1.6
Education level	High School	48	15.6
	Diploma	31	10.1
	Bachelor	161	52.3
	Master	46	14.9
	PHD	16	5.2
	Other	6	1.9
	Total	308	100.0
Occupation	Unemployed	60	19.5
	Student	86	27.9
	Employee	152	49.4
	Businessman/woman	7	2.3
	Retired	3	1.0
	Total	308	100.0
Monthly Income level	Under 4000 SAR	145	47.1
	4000 SAR – 6000 SAR	46	14.9
	6000 SAR – 8000	35	11.4
	8000 SAR -9000 SAR	20	6.5
	10000 SAR – 15000 SAR	35	11.4
	Above 15000 SAR	27	8.8
	Total	308	100.0
Length of E-banking usage	Less than a year	43	14.0
	Between 1and 3 years	117	38.0
	4-7 years	79	25.6
	More than 8 years	69	22.4
	Total	308	100.0
Frequency of E-banking services usage	Once per month	55	17.9
	Twice per month	49	15.9
	Three times per month	51	16.6
	+4 times per month	153	49.7
	Total	308	100.0

This table reflects maturity as well as diversity of the respondents. According to the preceding table, 131 respondents (42.5% of the total) fell into the male sex category, whereas 177 respondents (57.5%) did not. Consequently, it may be concluded from the foregoing that women made up most responders. Regarding the age of the respondents, 130 (42.2%) were between the ages of 18 and 25, 128 (41.6%) were between the ages of 26 and 35, 34 (11.0%) were between the ages of 36 and 45, 11 (3.6%) were between the ages of 46 and 55, and 5 (1.6%) were over the age of 55. This suggests that younger people utilize online banking more frequently. In addition, the table reveals that 161 (52.3%) of respondents had a bachelor's degree, 48 (15.6%) had a high school diploma, 46 (14.9%) had a master's, 16 (5.2%) had a doctorate, and 6 (5.2%) had chosen a different educational level. So, it can be inferred from the data above that most respondents had bachelor's degrees or higher.

The respondents' occupations show 152 (49.4%) of respondents said they were employed, 86 (27.9%) said they were students, 7 (2.3%) said they were businessmen/businesswomen, 60 (19.5%) said they were unemployed, and 3 (1.0%) said they were retired. Based on the data presented above, it is possible to conclude that the vast majority of respondents were employed. In regard with the income level, 145 (47.1%) of respondents earned less/under 4000 SAR, 46 (14.9) of respondents earned 4000 SAR - 6000 SAR, 35 (11.4%) of respondents earned 6000 SAR - 8000 SAR, 20 (6.5%) of respondents earned 8000 SAR - 9000 SAR, 35 (11.4%) of respondents earned 10000 SAR - 15000 SAR and 27 (8.8%) of respondents earned above 15000 SAR. As for the length of E-banking service usage, 43 (14.0%) of respondents have used e- banking services for less than a year, 117 (38.0%) of respondents have used e- banking services between 1 -3 years, 79 (25.6%) of respondents have used e- banking services for 4-7 years and 69 (22.4%) of respondents have used e- banking services for more than 8 years. Regarding the frequency of E-banking service usage, 55 (17.9%) of respondents were using e- banking services once per month, 49 (15,9%) of respondents were using e- banking services twice per month, 51 (16.6%) of respondents were using e- banking services three times per month and 153 (49.7%) of respondents were using e- banking services more than four times per month.

4.1 Correlations Analysis

The below table shows that all correlation coefficients are significant at the level (0.01), which indicates the internal consistency of all items and the axes as well for the questionnaire.

Table 2
Correlations Coefficient Analysis

Variables	Correlation	Number of Items
Reliability	0.864**	5
Transactions Efficiency	0.889**	4
Ease of Use	0.858**	4
Security	0.888**	7
Customer Support	0.828**	5
Satisfaction with quality of service	0.865**	5
Performance	0.827**	5
Service Content	0.888**	4

Table 3
Correlations between dependent and independent variables

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reliability (1)	Pearson Correlation	1	.738**	.746**	.735**	.726**	.699**	.607**	.719**	.864**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000
	N	308	308	308	308	308	308	308	308	308
Transactions Efficiency (2)	Pearson Correlation	.738**	1	.754**	.726**	.661**	.760**	.777**	.821**	.889**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000
	N	308	308	308	308	308	308	308	308	308
Ease of Use (3)	Pearson Correlation	.746**	.754**	1	.726**	.703**	.688**	.647**	.726**	.858**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	N	308	308	308	308	308	308	308	308	308
Security (4)	Pearson Correlation	.735**	.726**	.726**	1	.703**	.714**	.672**	.717**	.888**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000
	N	308	308	308	308	308	308	308	308	308
Customer Support (5)	Pearson Correlation	.726**	.661**	.703**	.703**	1	.637**	.552**	.692**	.828**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	N	308	308	308	308	308	308	308	308	308
Satisfaction with quality of service (6)	Pearson Correlation	.699**	.760**	.688**	.714**	.637**	1	.729**	.766**	.865**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000
	N	308	308	308	308	308	308	308	308	308
Performance (7)	Pearson Correlation	.607**	.777**	.647**	.672**	.552**	.729**	1	.778**	.827**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	308	308	308	308	308	308	308	308	308
Service Content (8)	Pearson Correlation	.719**	.821**	.726**	.717**	.692**	.766**	.778**	1	.888**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000
	N	308	308	308	308	308	308	308	308	308
ALL Over (9)	Pearson Correlation	.864**	.889**	.858**	.888**	.828**	.865**	.827**	.888**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	308	308	308	308	308	308	308	308	308

**. Correlation is significant at the 0.01 level (2-tailed).

The above table shows the correlation coefficient between dependent variable (Customer Satisfaction) and independent variables Reliability, Transactions Efficiency, Ease of use, Security, Customer Support, Satisfaction with Quality of Service, Performance and Service Content). The result of the connection between customer satisfaction and performance, as shown in the table above, was a positive coefficient of relation of 0.827. This finding demonstrates that service quality has a significant link to customer satisfaction (Nupur, 2010). The correlation coefficient between Customer Satisfaction and Customer Support is positive with a value of 0.828. This result shows that customer support has a significant relationship with customer satisfaction (Grissemann & Stokburger-Sauer, 2012).

Consumer satisfaction and ease of use have a positive association coefficient, with a value of 0.858. This outcome validates earlier research (Zavareh et al., 2012). This finding demonstrates that user friendliness and customer satisfaction are strongly correlated (Mustapha & Obid, 2015). Customer satisfaction and reliability have a positive connection coefficient, with a value of 0.864. This finding demonstrates a strong correlation between dependability and client happiness. Customer satisfaction and reliability have a positive connection coefficient, with a value of 0.864. This suggests that there is an inverse relationship between reliability and customer satisfaction, meaning that as a consumer receives more dependable service, their contentment will rise (Singh & Kaur, 2011). Customer happiness and contentment with the calibre of the service have a positive correlation coefficient of. Customer satisfaction and contentment with the quality of the service have a positive correlation coefficient of 0.865, indicating a significant relationship between them. Security, service content, and transaction efficiency have a substantial and positive link with customer satisfaction, according to the correlation results, with coefficients of 0.888, 0.888, and 0.889, respectively.

5. Discussion and Conclusion

Youth between the ages of 18 and 25 make up the bulk of current e-banking customers when it comes to age groups. The young or the youth are more interested in using technology for banking services than adults or the elderly, hence age is important. This is because young people, by nature, are more open to change and more familiar with modern technologies, particularly when it comes to the usage of the internet in the banking sector. In addition to the foregoing, users of e-banking services typically earned less than 4,000 SAR annually, leading the researcher to assume that these individuals are either still students or recently graduated individuals looking for employment. This serves as yet another indicator for the aforementioned claim regarding age group. The goal of the study is to evaluate how the use of e-banking services affects customer satisfaction in the context of Saudi Arabian commercial banks. Eight dimensions were assessed using mean and standard deviation to gauge how respondents felt about online banking. The bank maintains clear and accurate account records, the bank employs excellent expertise to provide high quality services, the bank's electronic service channels always function regularly, and the e-banking process can solve problems quickly and accurately. These five hypothetical statements were created based on the reliability data. Due to their mean and standard deviation falling between 3.4 and 4.20, they are all relevant for customer satisfaction. Four hypothetical claims were made regarding the efficiency of transactions: using e-banking services will save me time; the service will be delivered quickly; the e-banking system will provide the service correctly the first time; and using e-banking will help me complete all the necessary transactions. Due to their mean and standard deviation falling between 3.4 and 4.20, they are all relevant for customer satisfaction. Four hypothetical statements about ease of use were created, and they are as follows: I discovered that e-banking services are easy to use, it is simple to register with the bank and access its portal through its website, the bank offers immediate assistance to streamline customer operations, and it is simple to find information when using e-banking services. Because the mean and standard deviation are within the range of 3.4 to 4.20, all of them are meaningful for customer satisfaction. Seven hypothetical statements were created regarding service security, including: e-banking services do not allow others to access my accounts; e-banking services offer high protection for my banking transactions; e-banking services offer secure personal privacy; the security devices of the e-banking services protect the data that are sent by me; and e-banking websites do not share my personal information with other parties. Due to their mean and standard deviation falling between 3.4 and 4.20, they are all relevant for customer satisfaction.

Five hypothetical statements regarding customer support were created, and they are, Clear instructions are provided by the e-banking system, and in the event of a problem, I can get in touch with staff right away. If there is a problem, assistance is always available, and staff members can explain the proper steps to take in order to fix the issue. Additionally, e-banking contains a thorough guide to fixing common issues. While the range of the mean and standard deviation ranges from 3.4 to 4.20, all of them are relevant for customer satisfaction.

Regarding performance, five hypothetical statements were created, including: e-banking is convenient, including internet, ATM, POS, and mobile banking; it reduces the number of customers in banking branches; it allows me to complete banking tasks more quickly; I believe using e-banking improves customer service; and it helps to complete banking tasks more cheaply. Due to their mean and standard deviation falling between 4.20 and 5.00, they are all relevant for customer satisfaction.

Four hypothetical claims about the service's content were developed, and they are as follows: e-language banking's is simple to comprehend; its information is consistently up to date; it offers 24-hour service; and it is available in multiple languages. Due to their mean and standard deviation falling between 3.4 and 4.20, they are all relevant for customer satisfaction.

Five hypothetical statements were created in relation to customer satisfaction with the quality of service, including: I prefer using e-banking instead of going into a branch to complete my transaction; I believe I made the right choice to use the e-banking services; I am satisfied with the quality of the bank's e-services; my satisfaction with the e-banking services is high; and the bank offers high-level services to its customers with the intention of satisfying them. Due to their mean and standard deviation falling between 4.20 and 5.00, they are all relevant for customer satisfaction.

The researcher concludes that females utilize e banking more than males based on the findings of the study. Young people were the most frequent users of e banking, followed by the elderly. Furthermore, it was possible to conclude that the middle-income group and employees have been the most regular users of e banking. The dependent variable was found to be well defined by the independent variables. It has been determined that service quality and performance are the most important aspects that influence e-banking customers' satisfaction. As a result, it can be inferred that the quality of e-banking services improves bank efficiency.

Because of the existence of worldwide industry, banks are successfully providing online services in the economy. As a result, in order to gain, banks must offer their e-banking clients the best services. The results of the study demonstrate that the customer satisfaction scale for online banking in Saudi Arabian banks is a reliable indication of customer satisfaction, and the current scale has been verified as a determinant of customer happiness scale.

Limitations & Recommendation Future Research

Even though the customers are to the same parameter, the study's fundamental weakness was an insufficient sample size. The study's sample size was insufficient, making extrapolation of the findings difficult. To establish healthy generalizations from this study, it is necessary to calculate an acceptable sample size that is representative of the study and sufficient for making healthy generalizations. Furthermore, rather than sampling customers from all banks, only a few were chosen for this study, which may influence the findings. The researcher also had to deal with time and resource constraints. The inability of the respondents to complete the questionnaires is another disadvantage of this study. The majority of respondents expressed a lack of interest in completing the questionnaires since they were tedious to read and seemed to take too much time. These three limitations have an impact on how the research was carried out. The amount of research done and the sample size that was chosen were both impacted by time restrictions. The unwillingness and refusal of some sampled respondents to fill out the questionnaires is a significant limitation of this study. Most respondents to this study have little to no awareness of the e-banking service, which is its final restriction. Although this study has been as expensive as it can be, it is still necessary to consider the other aspect of service quality related to internet banking and determine how it affects customer satisfaction. This will make it easier to apply the findings to the economy of Saudi Arabia. The scope of this study was restricted to customer satisfaction and service quality; however, more research is required to determine how customer contentment or discontent affects the switching costs of banks that offer e-banking or the switching intentions of their clients. The relationship between the diversity of e-banking customers and concerns relating to electronic payment, such as funds transfer, security, and bill payment, should be further researched.

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Institutional Review Board Statement

This study received full ethical approval from King Faisal University.

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