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Impact of Cloud Services and Services Quality on Competitive Service Quality of Islamic Banks: Moderating role of consumer e-learning

Impacto de los servicios en nube y de la calidad de los servicios en la calidad competitiva de los servicios de los bancos islámicos: Moderating role of consumer e-learning

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ABSTRACT

Introduction: the main aim of the current study is to explore the moderating impact of consumer e-learning on the relationship between cloud services, service quality, and competitive service quality in Islamic banks. With the growing reliance on digital banking and cloud technologies, understanding how e-learning can enhance the effectiveness of these services and improve consumer perception is crucial. The research focuses on examining these variables in the context of Islamic banking, where service quality is often directly linked to customer satisfaction and competitive advantage.
Method: to achieve the study's goal, data was collected from e-banking consumers using a structured survey. The researchers applied Structural Equation Modeling (SEM) using AMOS software to analyze the relationships between cloud services, service quality, and competitive service quality, while also examining the moderating role of consumer e-learning. The data sample was obtained from banking consumers in a single country, which may limit the generalizability of the findings.
Results: the results of the study indicated that: Cloud services have a significant positive impact on competitive service quality, Service quality has a significant positive impact on competitive service quality, the study's primary contribution was the confirmation of the moderating effect of consumer e-learning. E-learning in the context of consumer education was found to enhance the relationship between cloud services, service quality, and competitive service quality, making it a key factor for improving customer experiences.
Conclusions: the study underscores the importance of consumer e-learning in enhancing the quality and competitiveness of cloud services in Islamic banks. However, certain limitations exist, such as the small sample size and the study being confined to only one country. To build on these findings, future research is recommended to include a larger sample size from diverse geographical regions and consider conducting longitudinal studies to assess the pre- and post-learning effects of consumer education on service quality and competitiveness.

Keywords*: Cloud Services; Service Quality; Competitive Service Quality; Islamic Banks; Jordan.*

RESUMEN

Introducción: el objetivo principal del presente estudio es explorar el impacto moderador del e-learning del consumidor en la relación entre los servicios en la nube, la calidad del servicio y la calidad del servicio competitivo en los bancos islámicos. Con la creciente dependencia de la banca digital y las tecnologías en la nube, es crucial comprender cómo el e-learning puede aumentar la eficacia de estos servicios y mejorar la percepción del consumidor. La investigación se centra en examinar estas variables en el contexto de la banca islámica, donde la calidad del servicio suele estar directamente relacionada con la satisfacción del cliente y la ventaja competitiva.

Método: para alcanzar el objetivo del estudio, se recopilaron datos de consumidores de banca electrónica mediante una encuesta estructurada. Los investigadores aplicaron el Modelo de Ecuaciones Estructurales (SEM) utilizando el software AMOS para analizar las relaciones entre los servicios en la nube, la calidad del servicio y la calidad del servicio competitivo, examinando también el papel moderador del aprendizaje electrónico de los consumidores. La muestra de datos se obtuvo de consumidores de servicios bancarios de un único país, lo que puede limitar la generalizabilidad de las conclusiones.

Resultados: los resultados del estudio indicaron que: Los servicios en la nube tienen un impacto positivo significativo en la calidad del servicio competitivo, La calidad del servicio tiene un impacto positivo significativo en la calidad del servicio competitivo, La principal contribución del estudio fue la confirmación del efecto moderador del e-learning del consumidor. Se constató que el e-learning en el contexto de la educación del consumidor mejora la relación entre los servicios en nube, la calidad del servicio y la calidad del servicio competitivo, lo que lo convierte en un factor clave para mejorar las experiencias de los clientes.

Conclusiones: el estudio subraya la importancia del e-learning del consumidor para mejorar la calidad y la competitividad de los servicios en nube en los bancos islámicos. No obstante, existen ciertas limitaciones, como el reducido tamaño de la muestra y el hecho de que el estudio se circunscriba a un solo país. Para aprovechar estas conclusiones, se recomienda que en futuras investigaciones se incluya una muestra más amplia de diversas regiones geográficas y se considere la posibilidad de realizar estudios longitudinales para evaluar los efectos previos y posteriores a la formación de los consumidores sobre la calidad y la competitividad de los servicios.

Palabras clave: Servicios en la Nube; Calidad de Servicio; Calidad de Servicio cCompetitiva; Bancos Islámicos; Jordania.

INTRODUCTION

In the current technological era because of rapid growth in information technology, banking consumers are capable of connecting with banks through mobile and internet banking. E-banking adopting has several necessities; such as: creates an experience which is necessary for the loyalty intentions of consumers (Alnsour, 2022). However, the main concern is the availability of hardware and software and systems that can process financial information (Alghadi, 2024). In simple words, utilizing modern tools of information technology for provision of an optimal combination of overall banking activities as per the needs of consumers is e-banking (Sathiyavany & Shivany, 2018), The most common concern of the experts in this regard is make hardware and software compatible for the integrated use of all activities of the consumers (Alalwan, Dwivedi, Rana, & Algharabat, 2018).

The most commonly products of e-banking include electronic wallet, electronic cashless currency, electronics cheques and pay orders, various kinds of cards including, credit, ATM, and debit or Point of Sales (POS) (Felix, 2018; Komulainen & Saraniemi, 2019). Besides software and hardware, the requirements of e-banking also include legal, cultural, relationship management systems, and human resource management (Azizan, Mellon, Ramli, & Yusup, 2018; Asif, Asad, Bhutta, & Khan, 2021). However, in the developing countries like Jordan, traditional banking channels are still the most commonly used methodology for the banking activities (Alnsour, 2020). Especially after COVID-19 majority of the countries have made significant investments in e-banking system development, public education generally, and towards e-banking use in particular (Alenezi, 2020; Kashif, et al., 2020; Fadhel, Aljalahma, Almuhanadi, Asad, & Sheikh, 2022).

Despite the efforts it has been observed that potential users are hardly utilizing e-banking despite the accessibility, which created a major question for the banks and their efforts and investment (Asad, Ahmad, Haider, & Salman, 2018). Hence, it has become very critical to identify those factors that influence the capability and likeness of consumers towards usage of e-banking services for improving the marketing techniques (Alalwan, Dwivedi, Rana, & Algharabat, 2018). Additionally, since the effectiveness of cloud service adoption is fundamentally influenced by customers' opinions toward using them (Jnr, Majid, & Romli, 2018), it is therefore, necessary to understand those factors that have a significant impact over Utilizing electronic banking (Shankar & Jebarajakirthy, 2019) in the turbulent market environment (Asad, Asif, Bakar, & Altaf, 2021) to engage banking consumers in e-banking (Yasin, Liébana-Cabanillas, Porcu, & Kayed, 2020).

Furthermore, in the current competitive environment consumers services provided through innovation (Khan, Asad, Khan, Asif, & Aftab, 2021) are the result of marketing activities (Na, Kang, & Jeong, 2019). Hence banking employees are facing more challenging tasks of developing strategies for dealing and promoting e-banking (Chauhan, Yadav, & Choudhary, 2019). Retaining the existing consumers and shifting their behavior towards e-banking for gaining competitive service quality needs recognition of cloud services (Singh, Tanwar, & Srivastava, 2018). Identifying the moderating effect of consumer e-learning in the e-banking industry as well as clarifying the effects of cloud services and service quality on competitive service quality requires a current

study. (Li, Lu, Hou, Cui, & Darbandi, 2021). Thus, the following are the study's primary goals:

- Analyzing the influence of cloud services on competitive service quality.
- Analysing the influence of services quality on competitive service quality.
- Investigating how consumer e-learning impacts how cloud services and competitive service quality are linked.
- Investigating how consumer e-learning impacts how services quality and competitive service quality are linked.

LITERATURE AND THEORETICAL SUPPORT

Procedures that are followed by the consumers for making banking transactions electronically are termed as cloud services (Sathiyavany & Shivany, 2018). Cloud services include any kind of banking service that eliminates the physical presence of consumer at bank (Li, Lu, Hou, Cui, & Darbandi, 2021). For completing banking transactions several communication devices like; mobile phones, laptops, ATMs and, points of sales influence competing styles of banking (Zemrane, Baddi, & Hasbi, 2019). In the rest of the literature, the authors have initially reviewed the related literature and, based on the same hypothesis and framework has been developed.

Competitive Service Quality

The Level of service quality offered by the bank in comparison with other rivals operating in the market is considered competitive service quality which is usually measured by Seroquel instruments. Consumers also analyze the competitive service quality which can be seen in terms of their satisfaction level; hence, entropy methodology is used to quantify competitiveness (Asad, Asif, Khan, Allam, & Satar, 2022). The significance of every attribute's entropy reveals the comparative value of the trait for competitive service quality (Wang, Garg, & Li, 2021).

Similarly to this, Cloud service providers assess the value of their solutions using specific criteria based on managerial and technical service quality features. These measurements also show competitive service quality. (Lang, Wiesche, & Krcmar, 2018). Additionally, customer happiness should be the main emphasis of any program to increase service quality as well as a way to set the company's services apart from those of its rivals (Kim, Lee, & Yun, 2004; Damer, Al-Znaimat, Asad, & Almansour, 2021; Alnsour, 2022; Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022). Finally, the moderating of consumer e-learning have a relationship between cloud services, services quality and competitive services quality (Lin, 2011; Li, Lu, Hou, Cui, & Darbandi, 2021).

Cloud Services

One of the topics being addressed in IT circles right now is the use of cloud services and replacing out-of-date software with these new technologies, (Cai, et al., 2019; Cearnău, 2018). Cloud computing refers to an enormous, virtualized resource pool that may be dynamically altered to offer flexible services over the internet (Moreno-Vozmediano, Montero, & Llorente, 2012; Zanni, Forsstrom, Jennehag, & Bellavista, 2018; Kadir, Hamzah, & Hassan, 2020). It has the potential to boost efficacies, improve defect forbearance ability, enhance corporate nimbleness, and decrease costs (Hirzalla, 2010; Alkhuzaie & Asad, 2018; Rezaeipanah, Mojarad, & Fakhari, 2022) by using hardware and software with the help of networking (Malik, Wani, & Rashid, 2018; Bilal & Sulaiman, 2021).

Such resources include applications, software platforms, or virtual appliances (Mavridis & Karatza, 2019; Zhou, Wang, Chen, Li, & Chen, 2020). In this way several procedures are performed using data servers (Jeevitha & Athisha, 2021) which helps in maintaining big data (Kritikos, Magoutis, Papoutsakis, & Ioannidis, 2019; Ullah, et al., 2021; Hammami, Ahmed, Johny, & Sulaiman, 2021) which can be used for bringing innovation in services (Asad, Shabbir, Salman, Haider, & Ahmad, 2018) for achieving competitive service quality. Users can connect to those data sets and can avail the services at any time (Asif, Asad, Kashif, & Haq, 2021). Cloud database helps in supplying secure access to consumers (Kritikos, Magoutis, Papoutsakis, & Ioannidis, 2019; Qalati, Ostic, Sulaiman, Gopang, & Khan, 2022).the two important characteristics of cloud services are the visualization of resources and ease of use (Hanjaya, Kenny, & Gunawan, 2019).

Service Quality

The variation between what customers expect from banks' services and those expectations are recognized as service quality. (Prasadh, 2018). When the bank's actual performance exceeds expectations, the quality of services as recognized will be deemed to be above satisfactory (Fauzi & Suryani, 2018; Chethiyar, Asad, Kamaluddin, Ali, & Sulaiman, 2019). Various studies have found a significant relationship between consumer satisfaction with e-banking and the quality of the services provided (Abror, Patrisia, Engriani, Susi Evanita, & Dastgir, 2019; Fida, Ahmed, Al-Balushi, & Singh, 2020). This requires successful implementation of system's service quality which ensures speed, security and best quality (Ghafoor, Kong, Rawat, Hosseini, & Sadiq, 2018) which affirmatively influence satisfaction level of consumer (Amir & Asad, 2018).

Service quality, especially for the e-banking consumers mostly covers cost-effectiveness (Khalil, Asad, &

Khan, 2018), which means that the services are provided at minimum cost or free of cost, user friendliness which means that service is flexible in time and place which attract the consumer by providing an attractive platform (Al-Emadi, Ahmed, Kassim, & Razzaque, 2021), and finally the bank uses information and communication technologies to provide technical support. User support and management support are two aspects of technical support (Zheng, Hatakka, Sahay, & Andersson, 2018; Beckers, et al., 2018). Here the term user support means technical support provided by the system (Taherdoost, 2018).

Consumers E-Learning

Consumer's e-learning ensures the continuation of the consumer with the bank because of the various levels of e- learning experience. Service quality and competitive service quality have a substantial association according to consumers' e- learning (Li, Lu, Hou, Cui, & Darbandi, 2021). Likewise, consumer's e-learning can be considered as a major enabler that strengthen the significance of quality service. The determining factor of successful consumers e-learning is vital for identifying instructional strategies (Riphah, Ali, Danish, & Sulaiman, 2022). Researchers have analyzed consumers e-learning execution and acceptance, whereas various studies have addressed e -learning success from numerous perceptions of cloud services and service quality over competitive service quality (Li, Lu, Hou, Cui, & Darbandi, 2021; Tarhini, Hone, & Liu, 2014; Hussein & Hilmi, 2020).

RELATED WORK AND HYPOTHESIS DEVELOPMENT

The researchers conducted in- depth review of the prior literature regarding competitive service quality with reference to Islamic banks and electronic banking transactions (Rahi, Ghani, & Ngah, 2020; Singh & Srivastava, 2020). Prior researchers have conducted in- depth analyses and the results of majority of the studies revealed that those consumers who are more knowledgeable are using the e-products and services that are offered. However the literature regarding cloud services is limited and the awareness of cloud services that can motivate the consumers to use their services which can have a significantly affect over competitive service quality is even scarce.

Fauzi and Suryani (2018) identified the influence of quality on the usage of cloud services. Similarly, Vinoth, et al., (2022) examined and identified those factors which are compulsory for influencing cloud services adoption in the banking industry. The findings revealed that cost (Abedifar, Giudici, & Hashem, 2017), ease of use as per the consumers (Giudici & Shapley-Lorenz, 2021), trust (Valle, Fantazzini, & Giudici, 2008), and viewpoints of the consumers towards cloud significantly influence adoption of cloud services (Dawson & Thomson, 2018).

Similarly, Kadir, Hamzah, and Hassan (2020) analyzed the influence of ATM reliability, responsiveness, and satisfaction of consumers, over service enhancement factors and found reliability and safety to be the most influential. Likewise, Prasadh (2018) confirmed that positive influence of attitude and perception of consumers over the quality of e-services and e-banking adoption. In the same domain, Shankar and Jebarajakirthy (2019) determined how e-banking affects consumer perform and quality of e-services. Furthermore, Sathiyavany and Shivany (2018) identified the impact of capacity and contentment over loyalty in e-banking services. However, a very important aspect that has been under- researched is consumer learning towards e-banking. Hence, this study explored the moderating role of e-learning to strengthen the link between cloud services, services quality and, consumer satisfaction with e-banking.

Four hypotheses are offered in this study:

H_1: Cloud services have significant effects on competitive service quality.

H_2: Competitive service quality is significantly impacted by service quality.

H_3: Consumer e-learning of users moderates the relationship between Cloud Services and competitive service quality.

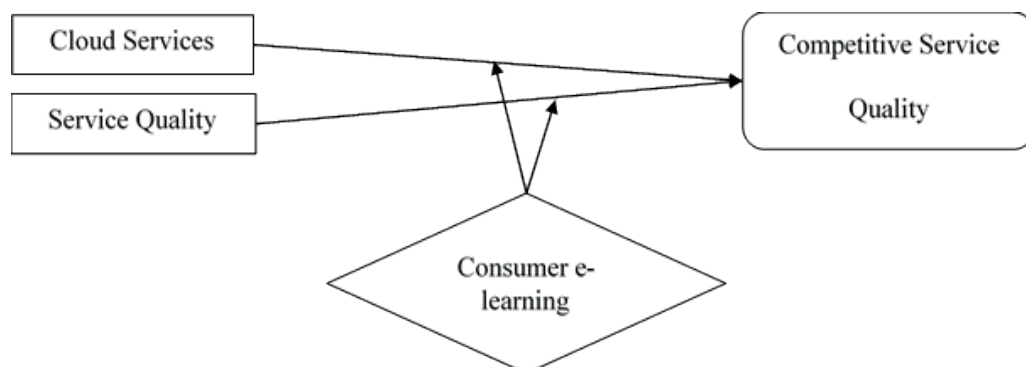H_4: Consumer e-learning of users moderates the relationship between Services Quality and competitive service.

Figure 1. Research Framework

METHOD

Data from bank customers were collected with the aim of demonstrating the relationship between exogenous and endogenous variables in the current study. Questioner was adopted from the previous studies in this field of study. Questioner contained five sections: first one demographic profile (gender, age, income, and education). The second section is items related to cloud services which were adopted from Cearnău (2018) and third section contains items related to services quality Shankar and Jebarajakirthy (2019), fourth section contains items related to consumer E-learning and the items were adopted from Alenezi (2020), last section contains related to competitive services quality were adopted from (Alghadi 2024; Li, Lu, Hou, Cui, and Darbandi 2021).

The study's sampling frame comprised the respondent who are the users of e-services, one thousands of users of e-banking were chosen on randomly basis. Therefore, the sample size of this population was determined to be 278 (Krejcie & Morgan, 1970), 400 questionnaires being distributed to (people in sampling). Thirty of these were not delivered, and 94 were not complete (missing responses). Thus 276 responses in all, representing a 69 % rate of response, —were used for the ensuing study.

The sample size was adequate, and the number of responses was comparable to other studies done in the same field before. Based on Quinlan, Zikmund, Babin, Carr, and Griffin (2018), 70 % and over is excellent, 60 % is good, and 50 % is adequate. Table 1 provides a summary of the response rates.

Table 1. Summary of Respondents	
Questionnaire administered	400
Undelivered	30
Uncompleted	94
Number of responses	276
Response rate (276/400)	69 %

Table 2 reveals that 159 responders (57,6 %) were female and 117 (42,4 %) were male. In the meantime, 44,6 % of participants were aged between 41 and 60. 36,2 % of participants reported monthly earnings of 1 000-2 000 JD. 37,3 % of participants held a bachelor's degree, while 6,5 % of participants had a PhD.

Table 2. Results of Demographic Characteristics			
Item	Characteristic	Frequency	Percentage (%)
Gender	Male	117	42,4
	Female	159	57,6
	Total	267	100,0
Age (years)	Less than 20	22	8,0
	20-40	95	34,4
	41-60	123	44,6
	More than 60	36	13,0
	Total	267	100,0
Income (JD)	Less than 1 000	85	30,8
	1 000-2 000	100	36,2
	2 000-3 000	68	24,6
	More than 3 000	23	8,3
	Total	267	100,0
Education	High school	87	31,5
	Bachelor	103	37,3
	Master	68	24,6
	PhD	18	6,5
	Total	276	100,0

This study going to illustrates the mediation of consumer E-learning in the connection between each independent variable and dependent variable. So the hypotheses developed according to figure 1 were:

H_1: Cloud services have significant effects on competitive services quality.

H$_2$: Services quality has significant on competitive services quality.

H$_3$: Consumer E-learning has a mediator effect on the relation between cloud services and competitive services quality.

H$_4$: Consumer E-learning has a mediator effect on the relation between services quality and competitive services quality.in order to test the hypotheses raised in the study, Structural equation modelling has been applied initial step to ensure the outer model. While analysing the outer model, the first step is the conduct the measurement model which is mentioned below in figure 2.
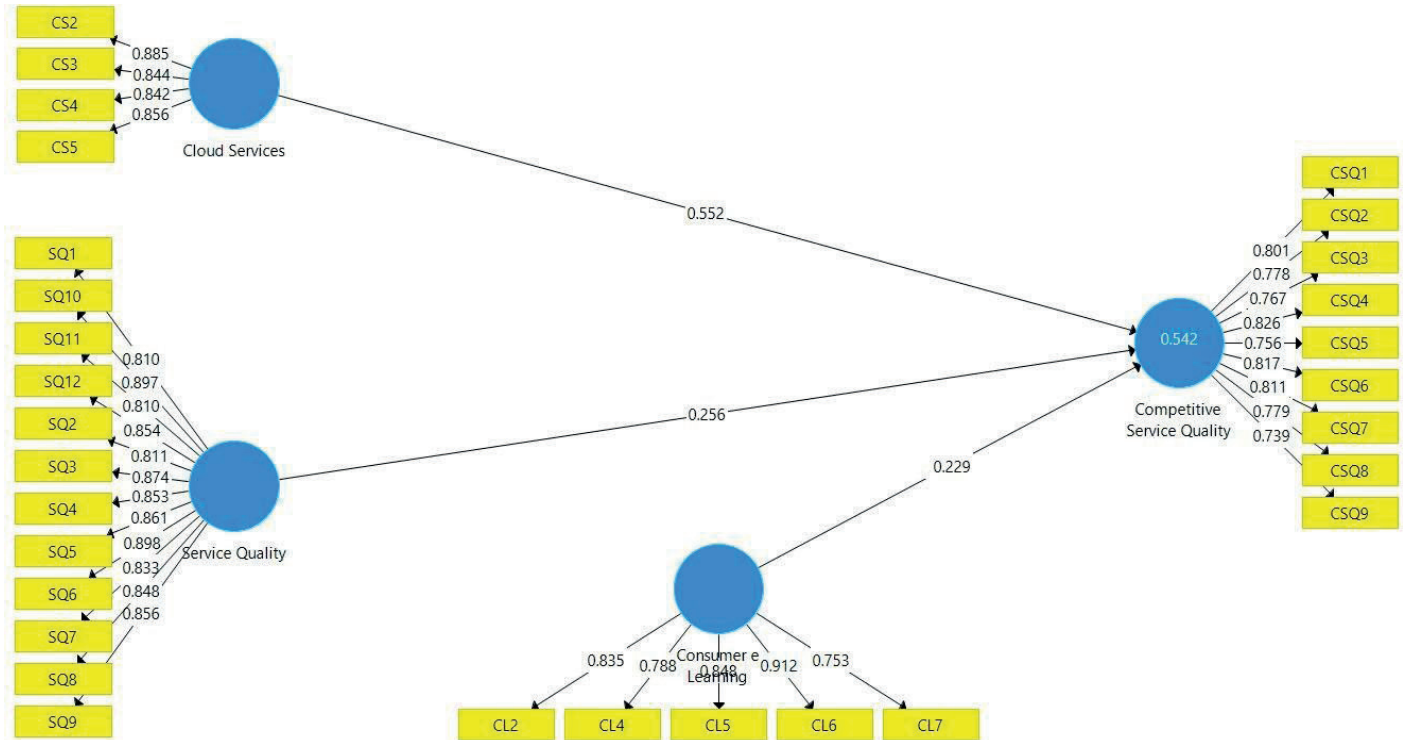

Figure 2. Measurement Model

In the measurement model initially, item loadings have been calculated. The calculated values for the item loadings are mentioned in table 3.

Table 3. Item Loadings				
Items	Cloud Services	Competitive Service Quality	Consumer e learning	Service Quality
CL2			0,835	
CL4			0,788	
CL5			0,848	
CL6			0,912	
CL7			0,753	
CS2	0,885			
CS3	0,844			
CS4	0,842			
CS5	0,856			
CSQ1		0,801		
CSQ2		0,778		
CSQ3		0,767		
CSQ4		0,826		
CSQ5		0,756		
CSQ6		0,817		

CSQ7	0,811	
CSQ8	0,779	
CSQ9	0,739	
SQ1		0,810
SQ2		0,811
SQ3		0,874
SQ4		0,853
SQ5		0,861
SQ6		0,898
SQ7		0,833
SQ8		0,848
SQ9		0,856
SQ10		0,897
SQ11		0,810
SQ12		0,854

The cutoff value for item loading is 0,70, any item having loading value below 0,7 should be eliminated from the model. After eliminating the items having loading value below 0,7, sufficient quantity of items were left as the removed items were less than 10 %. Afterwards, the following step was to measure the reliability and validity of the instrument which was done by analyzing Cronbach's alpha, Composite reliability and Average Variance Extracted. The calculated values for construct reliability and validity are listed in the table 4.

Table 4. Construct Reliability and Validity

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Cloud Services	0,880	0,917	0,735
Competitive Service Quality	0,923	0,936	0,619
Consumer e learning	0,911	0,916	0,687
Service Quality	0,956	0,969	0,724

The cut off value for Cronbach's alpha, Average Variance Extracted and composite reliability are 0,7, 0,5 and 0,7. The constructions are credible for further investigation because the calculated values are above the threshold level. The last step for ensuring the outer model is to analyse the discriminant validity which is mentioned in table 5.

Table 5. Discriminant Validity

Constructs	Cloud Services	Competitive Service Quality	Consumer e learning	Service Quality
Cloud Services	0,857			
Competitive Service Quality	0,706	0,787		
Consumer e learning	0,195	0,072	0,829	
Service Quality	0,626	0,602	0,025	0,851

The discriminant validity is ensured by checking that each construct's square root is greater than any other value's which can be seen in table 5. After ensuring the external validity of the model inner model has been analysed initially by checking the direct effects of cloud services and service quality. For the inner model original sample size has been used with a bootstrapping sample of 5000. The path coefficients for the direct effects can be seen in figure 3.

The t statistics are measured by applying bootstrapping for which the results can be seen in figure 4.
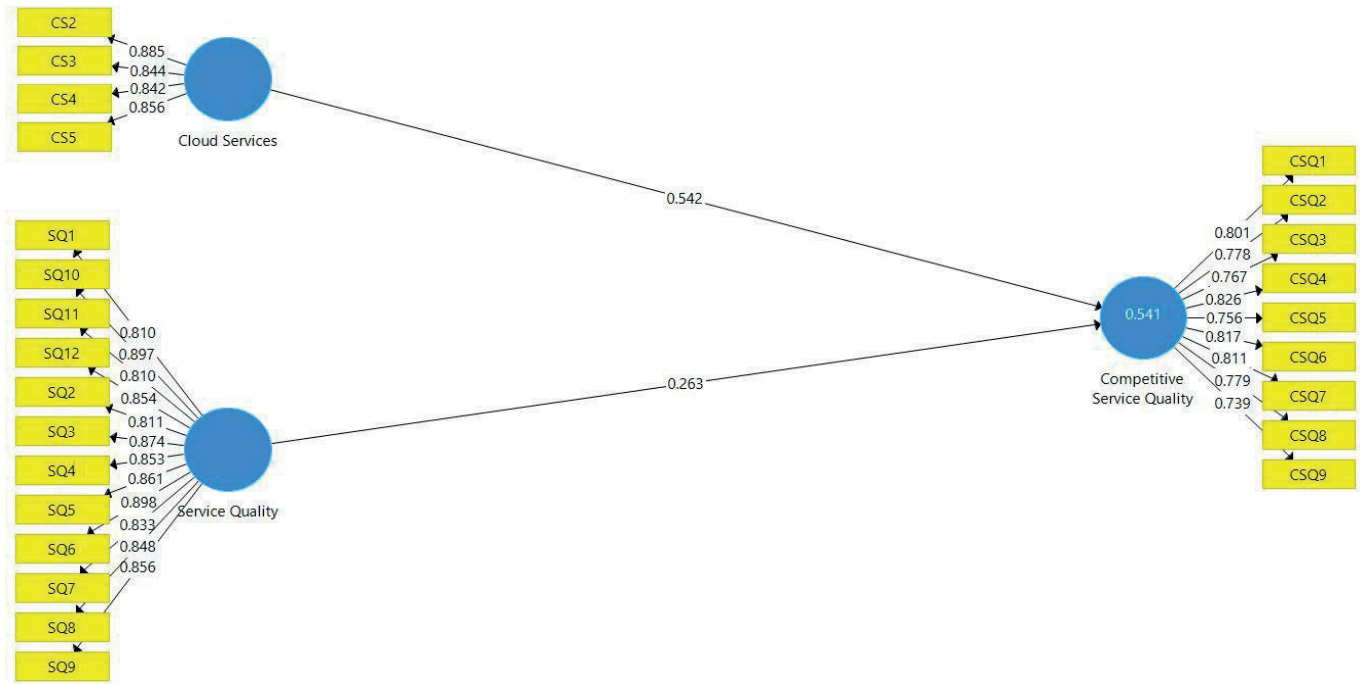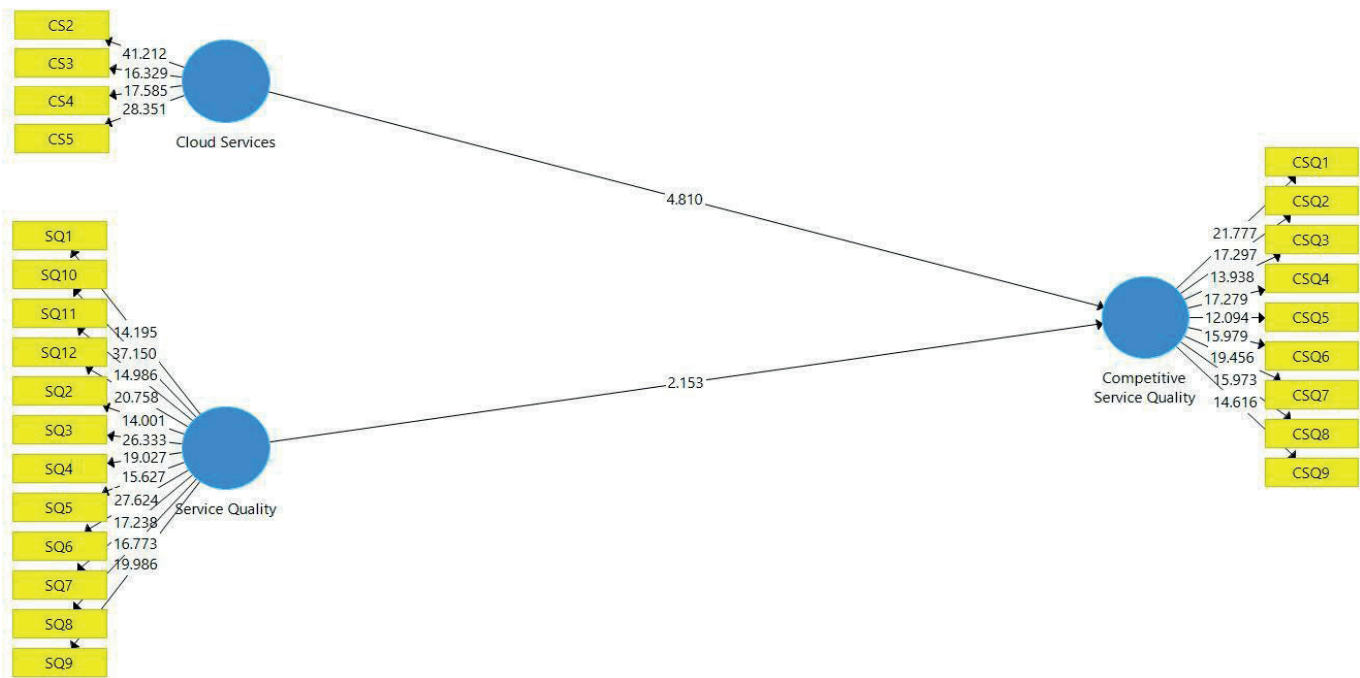
Figure 3. Direct Effects PLS Algorithms

Figure 4. Direct Effects Bootstrapping

Both the variables have sown significant effect over the dependent variable which is competitive service quality. The findings can be well understood in the table 6.

Table 6. Direct Effects					
Paths	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/ STDEV)	P Values
Cloud Services -> Competitive Service Quality	0,542	0,557	0,113	4,810	0,000
Service Quality -> Competitive Service Quality	0,263	0,256	0,122	2,153	0,032

Table 6 above shows that cloud services have a significant impact over competitive service quality (ß = 0,542, t = 4,810, p = 0,000). Similarly, service quality has a significant impact over competitive service quality (ß = 0,263, t = 2,153, p = 0,032). After ensuring the direct effects moderating variable which was consumer e learning has been introduced in the model and interaction terms were introduced in the model to test the moderating effect of consumer e learning over the two direct relationships. The findings for the beta values for Moderating effects can be seen in the figure 5 and the t statistics can be seen in figure 6.
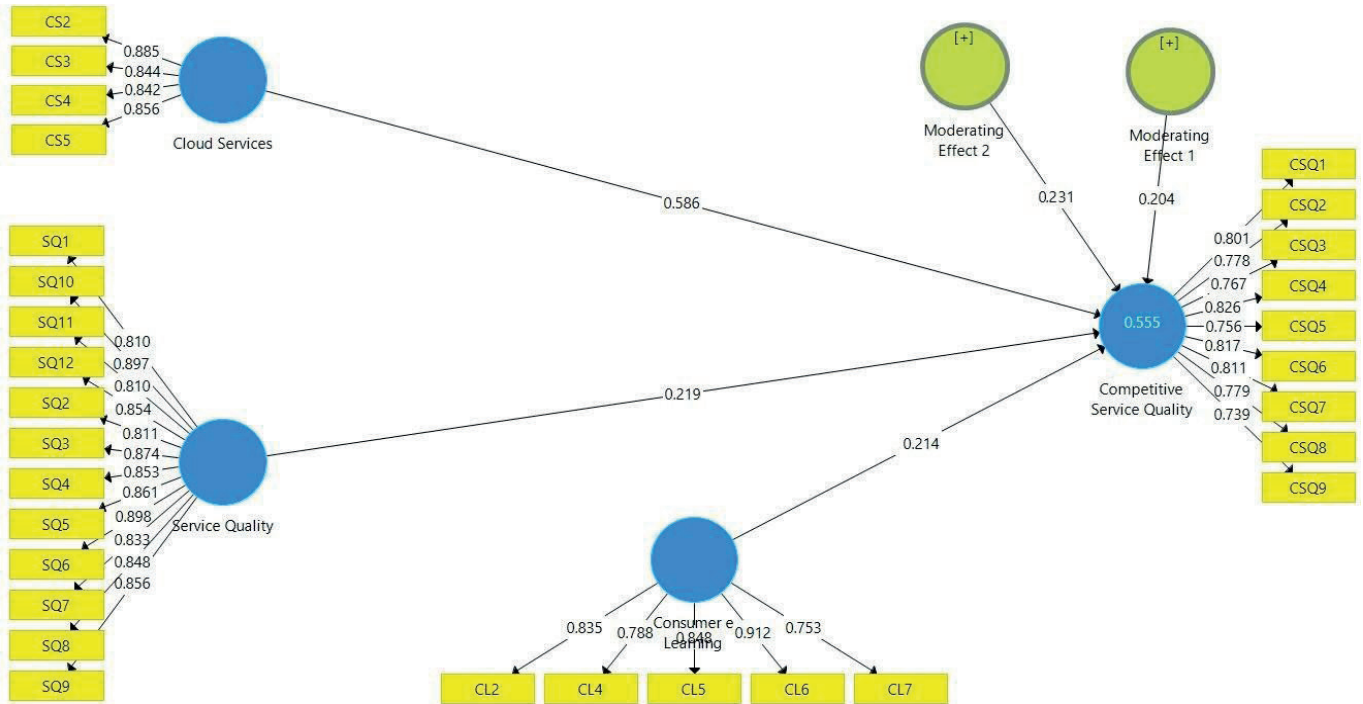

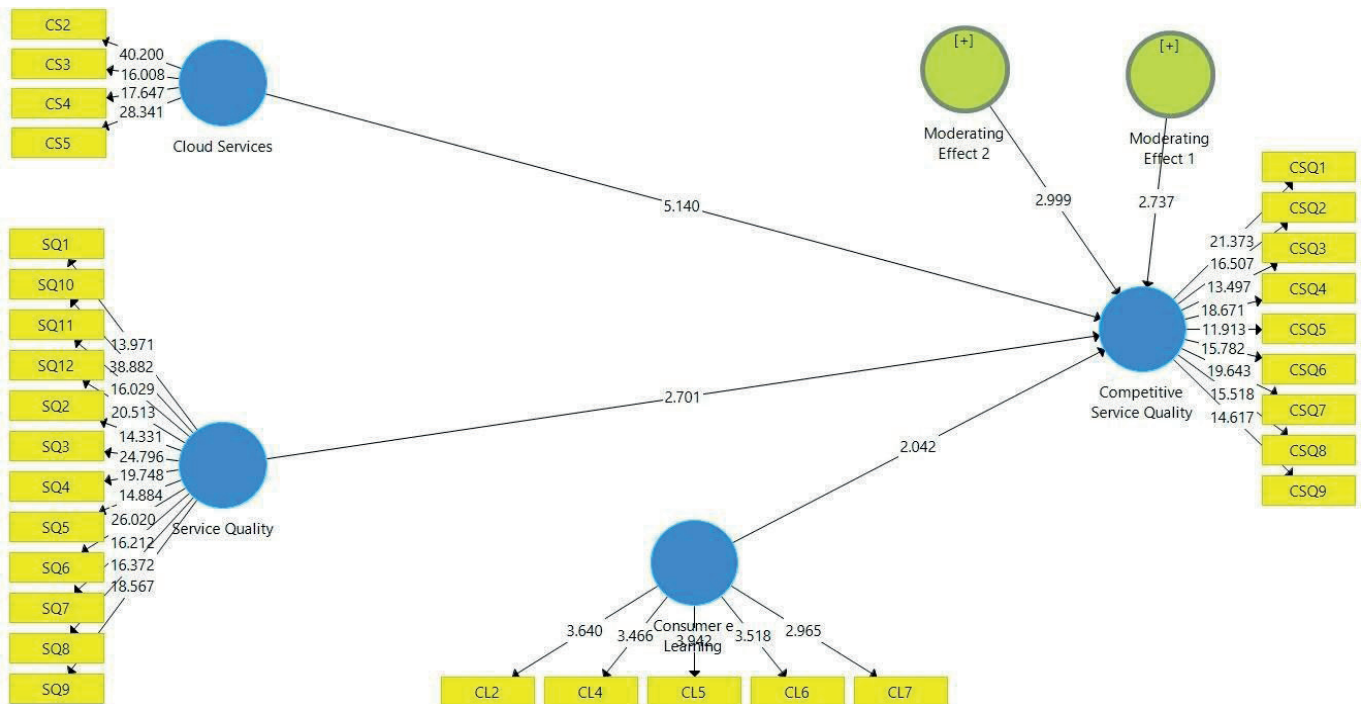**Figure 5.** PLS Algorithms Moderating Effects

Figure 6. PLS Bootstrapping Moderating Effects

The moderating effects can be well understood in the table 7.

Table 7. Moderating Effects					
Paths	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Moderating Effect 1	0,204	0,206	0,075	2,737	0,020
Moderating Effect 2	0,231	0,236	0,077	2,999	0,013

Table 7 above shows that the calculated values for the moderating effects are significant. Moderating effect of consumer e services over the relationship between cloud services and competitive services quality is significant (ß = 0,204, t = 2,737, p = 0,020). Likewise, the moderating effect of consumer e services over the relationship between service quality and competitive services quality is also significant (ß = 0,231, t = 2,999, p = 0,013). After ensuring the path coefficients for the direct effects as well as the moderating effects, to further check the predictive relevance of the model, blindfolding technique has been applied to measure construct cross validated redundancy. The findings are mentioned in table 8.

Table 8. Construct Cross Validated Redundancy			
Dependent Variable	SSO	SSE	Q^2(=1-SSE/SSO)
Competitive Service Quality	900,000	604,879	0,328

From table 8 it is confirmed that the model holds significant predictive relevance as the calculated value for Q^2 is more than 0,3.

CONCLUSIONS

Throughout the world service industry is gaining momentum especially, among masters and bachelors, between the age group 20 to 40 years of age group. The technological revolution has significantly altered the mode of delivery of services and the world is moving towards automation. However, people having limited knowledge feel uncomfortable while using automated services among masters and bachelors between the age group 20 to 40 years of age group. In the same, domain one of the service sectors having a significant impact on the life of consumers and the overall economic development is banking sector which has recently seen major technological transformations. Consumers are now encouraged to use e-banking to limit the use of counters for saving costs. Among the technological revolution for improving the quality of services cloud services are now a days considered among the topmost advancements. Using cloud services banks are limiting the physical presence of consumers and accelerating economic activities while improving the safety.

Hence the current study indents to confirm those factors which enhance competitive services qualities for the ultimate satisfaction of the consumers. The researchers developed the framework following a thorough assessment of the literature and utilized the tools previously employed by researchers in lieu of alternative theoretical theories. Results from data gathered from cloud service users supported all of the study's predefined hypotheses. Based on the literature which confirmed that cloud services have a significant impact over competitive service quality. Likewise, service quality itself has a significant positive impact over competitive service quality. The current study's main contribution was to determine how consumer education affected how consumers responded to e-services. The outcomes of the modelling of structural equations revealed that learning of e-services holds a significant moderating role over the meaningful connection between cloud services and competitive service quality Furthermore service quality and competitive service quality. The Flexibility and safety features of cloud services are the key reasons behind the success of e-services. The study findings confirmed that banks should use cloud services as a basis for developing flexible and customized services for consumers. By the use of cloud services, the issue of low security can also be removed.

The primary contribution of the current research was the analysis of moderating role of e-learning of users. Consumer learning plays a significant role over consumer satisfaction which promotes competitive service quality. These findings support the argument that banks need to focus over provision of training to their staff so that they may best guide their consumers regarding the services that banks provide to their customers. Many times the staff itself is unable to explain the utilization of services and the benefits that the consumer can gain from the services and cloud services being provided by banks.

Limitations and Future Directions

Although the study adds significantly to the body of knowledge by confirming the value of modulating the impact of consumer learning in the relationship between cloud services, service quality, and competitive service quality. Yet there are certain limitations that the researcher faced while conducting the study. The first limitation was that the data was collected from one country only, whereas a larger sample from multiple

countries could give a better understanding and may be useful for theoretical development for moderating the role of learning. Secondly, the chances of respondent bias were also there because those respondents who were not user of e-services were reluctant to participate in the study. Thus, the lack of cooperation by the population was another hurdle. The data has been collected in a cross-sectional way, however, to better understand the moderating impact of learning, there is a need to conduct a longitudinal study and pre and post-training analysis need to be conducted over a longer period. Furthermore, in the future, the same model needs to be applied in other countries and a longitudinal study should be conducted. Furthermore, a qualitative study is also recommended to further understand the reasons, other than learning, why some people are reluctant in using e-services.

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FINANCING

CONFLICT OF INTEREST

None.

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