

THE MEDIATING EFFECT OF CUSTOMER SATISFACTION ON THE
RELATIONSHIP BETWEEN DIGITAL BANKING SERVICE QUALITY AND
CUSTOMER LOYALTY

KHATTAB IBRAHIM HADID

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“To Almighty Allah, who gave me strength and wisdom to complete this work,
To my beloved family, my dear mother, wife and my kids”



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ABSTRACT

The prevalent rapid changes in the banking service environment are highly competitive and are compelling these banks to focus on digitization to improve their services and product delivery to satisfy the customer's new needs and expectations. Hence, in alignment with these new needs and expectations, this study has been done to investigate the effect of customer satisfaction on the relationship between digital banking service quality and customer loyalty. The research employed a stratified sample method and generated its data using the quantitative approach. The data were collected via the acquired, developed, and validated questionnaire. A total of 384 customers from five major commercial banks in Malaysia responded to the survey. The data were then analyzed using the Partial Least Square Structural Equation Modelling (PLS-SEM) SmartPLS software. Measurement and structural models were assessed for adequate validity and reliability. The findings revealed that digital banking service quality factors comprising reliability, tangibility, responsiveness assurance, and empathy are all positively related to customer loyalty ($p < 0.05$), with the exception of empathy; and to customer satisfaction at $p < 0.05$ with the exception of responsiveness. Meanwhile, customer satisfaction shows a mediating effect on the relationship between reliability, tangibility, empathy, responsiveness assurance, and customer loyalty. The study concluded that digital banking service quality positively and significantly affects customer satisfaction and loyalty in the commercial banking sector. It implies that digital banking services must have modern and effective equipment for processing data and transactions, and the ease of use needs to be designed and built into the digital banking services systems platforms. In addition, an effective digital banking operations tool in the infrastructure platform for digital banking services is essential to ensure that customers can access them quickly and safely.

ABSTRAK

Perubahan pesat yang lazim berlaku dalam persekitaran perkhidmatan perbankan adalah sangat kompetitif dan memaksa bank-bank ini untuk fokus pada pendigitalan untuk meningkatkan perkhidmatan dan penyampaian produk mereka untuk memenuhi keperluan dan harapan baru pelanggan. Oleh itu, selaras dengan keperluan dan harapan baru ini, kajian ini telah dilakukan untuk menyelidik pengaruh kepuasan pelanggan terhadap hubungan antara kualiti perkhidmatan perbankan digital dan kesetiaan pelanggan. Penyelidikan ini menggunakan kaedah sampel berstrata dan menghasilkan datanya menggunakan pendekatan kuantitatif. Data telah dikumpulkan melalui soal selidik yang diperoleh, dikembangkan, dan disahkan. Sebanyak 384 pelanggan dari lima bank perdagangan utama di Malaysia memberikan respon kepada tinjauan ini. Data kemudiannya dianalisis menggunakan perisian Partial Least Square Structural Equation Modeling (PLS-SEM) SmartPLS. Model pengukuran dan struktur dinilai untuk penentuan kesahihan dan kebolehpercayaan. Hasil kajian ini menunjukkan bahawa faktor kualiti perkhidmatan perbankan digital yang merangkumi kebolehpercayaan, perasaan ketara, jaminan responsif, dan empati semuanya berkait positif dengan kesetiaan pelanggan ($p < 0.05$), kecuali empati; dan kepuasan pelanggan pada $p < 0.05$ dengan pengecualian jaminan responsif. Sementara itu, kepuasan pelanggan menunjukkan kesan mediasi pada hubungan antara kebolehpercayaan, perasaan ketara, empati, jaminan responsif, dan kesetiaan pelanggan. Kajian ini menyimpulkan bahawa kualiti perkhidmatan perbankan digital secara positif dan signifikan mempengaruhi kepuasan dan kesetiaan pelanggan dalam sektor perbankan komersial. Ini menunjukkan bahawa perkhidmatan perbankan digital harus mempunyai peralatan moden dan berkesan untuk memproses data dan transaksi, dan kemudahan penggunaan perlu dirancang dan diintegrasikan ke dalam platform sistem perkhidmatan perbankan digital. Tambahan, alat operasi perbankan digital yang berkesan dalam platform infrastruktur adalah perlu untuk perkhidmatan perbankan digital untuk memastikan bahawa capaian dapat dibuat dengan cepat dan selamat.

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LIST OF SYMBOLS

Symbol - Description



LIST OF ABBREVIATIONS

| Apprevation | - | Description |
|-------------|---|---------------------------------|
| DBSQ | | Digital banking service quality |
| CS | | Customer satisfaction |
| CL | | Customer loyalty |
| R | | Reliability |
| T | | Tangibility |
| E | | Empathy |
| Re | | Responsiveness |
| A | | Assurance |
| IS | | Innovator service |
| SEM | | Structural Equation Modelling |
| CR | | Composite reliability |
| AVE | | Average Variance Extracted |



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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter provides an overview of the research by presenting the background study, problem statement, research questions, research objectives, the scope of the study, the significance of the study and its contributions. A hint on the organisation of this thesis and definitions of key terms used in the study are also presented.

1.2 Background of Study

The banking industry in Malaysia has demonstrated strong foundations as the government reinforces strict controls through the central bank. The development is seen in the banking industry from the last few decades, regardless of the financial variations in the economic world. No doubt, the banking industry is the most strenuous and thriving segment of the economy. In Malaysia, there are 27 commercial banks (8 local and 19 foreign banks), 18 Islamic and 11 conventional banks (BNM, 2017). The 2008 global financial crisis had little effect on the financial sector because of strict administrative prerequisites and banking reforms implemented in the last two decades (Nazir *et al.*, 2012; Phulpoto *et al.*, 2012). Malaysia has been viewed as a leader and trailblazer in the banking industry (Khan and Bhatti, 2008). It is regarded as one of the best economies in terms of advancement as acknowledged based on the budgetary framework and regular banking (Haneef, 2001; Haniffa and Hudaib, 2010; Zaher and Hassan, 2001). The Malaysian banking framework is chiefly determined by a solid capital base and government support which has helped the commercial banks to withstand the financial crisis of 2008 (Abdulle and Kassim, 2012).

The number of articles published in diaries and meeting digital banking procedures has increased significantly in recent years. The banking sector devoted

efforts to enhance service quality and approaches to satisfy existing customers while targeting new ones and ensuring improved service quality, customer satisfaction, and customer loyalty (Pakurár *et al.*, 2019). In addition, it has been identified that particular areas of increased research attention are customer conduct, service quality, and some aspects of performance. Likewise, some areas have witnessed little or no research attention. Examples of such include consequences of digital banking on customer satisfaction and dependability and customer satisfaction and reliability. It is proposed that more research attention should be devoted to these areas to identify their potentials in finer details.

Satisfaction entails an innovative approach to achieving improved service quality in banks to advance a genuinely customer-centred service and culture. Measuring customer satisfaction offers a quick and vital way to understand customers' inclinations and desires. Thus, a bank's performance might be assessed in relation to its satisfaction and loyalty measurements as this demonstrates how reliable or feeble the banking service is (Mihelis *et al.*, 2001).

Studies on the relationship between service quality and customer satisfaction concentrated on countries like the USA, England, India, United Arab Emirates (Angur *et al.*, 1999; Jamal and Nasser, 2002; Yavas *et al.*, 1997). Thus, there is a scarcity of research on managing digital banking service quality issues on Malaysia commercial banks. Evaluating service quality level and understanding how various dimensions impact overall service quality would ultimately enable the banking institutions to efficiently design the service delivery process. While many service quality attributes may influence a customer's perception to a certain extent (Ashfaq and Irum, 2020).

Therefore, this study fills this void and summarises the relationship between digital banking, service quality, satisfaction and loyalty in Malaysian banks. In the present Malaysian banking domain, banks are considered one of the top deliverers of quality service to customers and a key to progress and survival. This study's findings will form an essential knowledge-base on methods for improving service quality for improved customer satisfaction and loyalty.

The increasingly competitive business environment and changes in customer preferences require the bank management team to define, implement and monitor proactively marketing strategies designed based on continuous evaluation of its services' quality. This is advocated at all organisational levels of a bank; making it

crucial to improved service quality and banks' survival in the financial (Tadic *et al.*, 2018). Commercial banks still need to build a good service culture by enhancing the performance of their workforce, through various programs that improve their capacities to deal with customers as well as their insight on banking products and frameworks. Commercial banks need to establish their structures on a solid foundation to survive in the present day. This involves providing a conducive working environment, programmed machine line with computerised data framework, advance programming and equipment, and so on, to facilitate operational and administrative effectiveness and cordial customer relations (Amin, 2016).

Commercial banks ought to progressively take measures that ensure the utilisation of the most recent banking innovative advancements, such as enabling customers to apply banking services via web banking mode, a routine for the customers. Although some of the previously mentioned practices have been put in place by several banks, they should be thoroughly utilised by the banks to encourage increased customer adoption of technology and improve their judgment (Magotra, 2018). In fact, in contrast to other budgetary organisations, commercial banks should completely agree to the enactment of these practices (Aisyah, 2018). The quality of services offered by commercial banks should likewise be parallel to commercial standards and qualities. Thus, contrary to the regular estimation of service quality, this study gives insights into the quality service of banks.

Customer loyalty in the financial sector is important because it enables better economic and financial returns to institutions. Given its relevance, this phenomenon should be well understood (Lewis and Soureli, 2006; Baumann *et al.*, 2011). Loyalty can be defined as a form of customer commitment to buying or using a particular product or service which results in the repetitive purchase and maintenance preference for a specific supplier or service provider through time despite the prevalence of situational influences and competitive efforts that have potential to cause a change or switch in behaviour (Oliver, 2010; Yin and Matthews, 2016). Thus, it is relevant for companies to discriminate loyal customers from unreliable ones to identify strategies and services to be rendered to them (Liang *et al.*, 2009).

The cognitive-affect-conation pattern model framework proposed in (Nien -Te *et al.*, 2011) suggested that the customer be loyal at every stage of the proposed model (cognitive loyalty-affective loyalty-conative loyalty-action loyalty). The first phase,

cognitive loyalty, results from the earlier or specific comprehension or current experienced-based information. Customer loyalty at this stage is an apparent nature. The strength of loyalty at this phase is weightless because it is just a mere performance. The second phase, which is effective loyalty, is formed based on affection. During this period, a fondness or attitude towards the brand starts to develop by accumulating satisfactory usage experience. This reveals the pleasure of satisfaction and fulfilment customer derives.

The third phase is the conative loyalty or conative (behavioural intention) phase. Loyalty during this period is due to repeated events of satisfaction or pleasure with respect to the services. Conation can be defined as a product or service commitment to repurchase or repeat the use of a service. The fourth and last phase of customer loyalty is action loyalty. During this phase, customer loyalty emerges out of prior intentions. Action loyalty phase depicts the motivating intention that results from the previous phases of loyalty, which transforms into the willingness to take action (Hafeez and Muhammad, 2012).

Hence, customer loyalty is also connected and related to one another and is considered an essential tool for marketing strategy. Customer loyalty also depends upon the satisfaction of the customers. To gain any customer's loyalty, organisations must focus on the demands of their targeted customers and satisfy their needs (Tariq, 2020).

1.3 Problem Statement

The monumental transformation brought by emerging technologies has put the banking sector in the difficulty of adapting to the new and emerging changes while at the same time satisfying their clients without losing their loyalty. In Malaysia, the challenges faced by financial institutions, especially in the banking sector, have resulted in the additional burden of developing various strategies to attract customers and also under increasing pressure to keep their customers (Ibrahim *et al.*, 2019). At the Asian Banking and Finance Retail Banking Forum 2017, it was reported that customers preferred flexible trendy digital platforms where transactions are easily performed between the different banking institutions to give a good return of investment. Concerning this, Malaysian banks' digital platform has identified customer

loyalty as a matter of concern as the yield is still not far from the expected return (Haron, Abdul Subar and Ibrahim, 2019).

Muthonia and Otieno (2014) advocated that banking services and products differentiation are crucial to gaining competitive advantage and sustaining customer loyalty. This is essentially by offering unique, suitable goods and services that meet customers' expectations and desires. Few studies have researched the different perceptions of customers on service quality, especially on the delivery of digital banking service quality among Malaysia Commercial Bank (Ali and Naeem, 2019); Amin, 2016; Ariff *et al.*, 2013). A critical review of related literature by Amin (2016); Krisnanto, (2018) iterated the need to investigate further and assess service quality, including reliability, assurance, tangibles, empathy and responsiveness, and type of service delivery would lead to higher customer satisfaction in the banking service sector. This it is important for commercial banks to improve service quality in order to generate competitive advantage and to be able to maintain it over time Shankar and Jebarajakirthy, (2019).

Banks in Malaysia have been in the digital banking business, using mobile banking, internet banking, online banking, and automated banking to satisfy the demand of their respective clients. However, there are concerns over the ever-changing business environment and varying customer demands (Haron, Abdul Subar, and Ibrahim, 2020). Several studies in Malaysia have considered the relationship between digital banking and customer satisfaction or loyalty independently in relation to the roles played in the success of service delivery (Moghavvemi *et al.*, 2018; Amin, 2016). According to Amin (2016), Bank Negara Malaysia report 2014 shows that the number of internet banking stood at 52.9% over 15.9 million. Consequently, there is a need to explore how digital service quality affects customer satisfaction and loyalty to improve bank digitization strategies and processes.

Loyal customers are producing satisfying quality customer services that resulted in increased revenue and sales of an organisation (Shamsudin, *et al.*, 2019). Loyal customers show their loyalty by the repeated purchase of the same organization's services and products (Xie, Poon and Zhang, 2017). This repetitious buying from the same organisation leads to increased sales (Yu and Yuan, 2019). Adams *et al.* (2019) stated that the importance of customer loyalty is that it is capable of giving an organisation a competitive edge over competitors in the same industry

and market. Thus, banks must be creative in developing and maintaining long-term relationships with existing customers while attracting new customers for long-term corporate sustainability and success. Therefore, understanding the factors that affect customer loyalty is imperative as this could significantly help banks design better strategy to sustain today's' challenging business environment (Rahman *et al.*, 2020).

While the effect of service quality on client satisfaction and client loyalty has been discussed separately in related studies by Aisyah (2018), studies on how computerised banking service quality affect customers have primarily been lacking. Very few relevant studies have considered the relationship between digital banking service, customer loyalty and customer satisfaction (Kim and Park 2019; Huma *et al.*, 2019). This is mainly because services rendered via digital banking is an emerging area. Hence, the differences in customer expectations have become a key area of research as digital banking keeps evolving. Sceptic customers have been mainly cautious, given the preponderance of fraudulent activities by bank fraudsters; thus, customers are reserved in terms of satisfaction and loyalty to their banks' digital services. As such, to enhanced customer satisfaction and loyalty, banks in Malaysia are committing resources in the areas of digital banking (Haron *et al.* 2020).

Bank chiefs ought to build their banking services alone, and they need to consider the ideal approach to guarantee customer satisfaction (Yilmaz, 2018). Better banking services enhances customer satisfaction and thereby building a strong relationship between banks and their customers (Suhaimi and Hassan, 2018; George and Kumar, 2014). Thus, observed that quality of service is very important in separating between the banks. Banks seeking to maximize profitability have come to realize that good quality helps a bank obtain and keep customers satisfaction and poor quality will cause customers to leave a bank (Jaafar and Tasmin, 2018). A satisfied customer may attract other customers and this increases performance of banks. Hence, this study has been conducted to investigate customer satisfaction's mediating effect on the relationship between digital banking service quality and customer loyalty.

1.4 Research Questions

The research questions formulated to guide this study are as follows:

- 1) What are the factors of digital service quality that positively affect customer loyalty in the commercial banking sector?
- 2) What are the factors of digital service quality that positively affects customer satisfaction in the commercial banking sector?
- 3) Is customer satisfaction positively related to customer loyalty in the commercial banking sector?
- 4) Does customer satisfaction affect the relationship between digital banking service quality and customer loyalty in the commercial banking sector?

1.5 Research Objectives

The main objectives of this research are as follows:

- 1) To determine the factors of digital service quality that positively affect customer loyalty in the commercial banking sector.
- 2) To determine the factors of digital service quality that positively affect customer satisfaction in the commercial banking sector.
- 3) To investigate whether customer satisfaction is positively related to customer loyalty in the commercial banking sector.
- 4) To investigate whether customer satisfaction affects the relationship between digital banking service quality and customer loyalty in the commercial banking sector.

1.6 Scope of the Study

This study investigates the effect of digital banking service quality on customer satisfaction of the following large local commercial Malaysian banks; Maybank, CIMB Bank, Muamalat Bank, RHB Bank, and Hong Leong Bank at Taman Universiti, Johor Bahru, Malaysia. The study's general outcome shows the contribution of digital banking service quality to customer satisfaction and loyalty in banks in the state of Johor Bahru. This study focuses specifically on the context of digital banking service

quality, customer satisfaction and customer loyalty in banks, and the outcomes may differ if other financial components or variables are included. Many different variables influence customer satisfaction, such as unwavering quality, substantial-quality, instruction, culture, and authority. This work explores the banking space, as there has been a developing and keen enthusiasm in this area; particularly in the wake of major budgetary breakdown witnessed across the world. The study is a quantitative study carried out through survey questionnaires. The respondent was customers who used the digital services provided by each of the aforelisted Malaysian banks. The objective is to analyse the influence of digital banking services quality on customer satisfaction and loyalty to these Malaysia Banks that offer digital banking services.

1.7 Significance of the study

The importance of this study is summarized as follows:

From an academic perspective, this research serves as a worthy contribution of literature on the different aspects of satisfaction and loyalty of digital banking users. This study will also encourage future researchers to study further digital banking service quality, customer satisfaction, and customer loyalty. Moreover, the results of the study show a positive relationship between the services of digital banking and satisfaction. Further, the results provide insight into banking services on investing in digital banking services to enhance the customers' loyalty and satisfaction. In particular, the study assists the banking sector's management authorities concerning the development of new customer-centric approaches and services. This research also highlights the different aspects of customer satisfaction and loyalty in terms of digital banking that will empower the top management on the development of services. As well as customer equity while bearing in mind that the more the services match the customers' expectations, the more loyal they become to the banks.

1.8 Definition of key terms

Digital banking: Digital banking is the transformation of physical banking wherein customers have to be present in a bank branch for banking transactions like checking account balance, funds transfer, etc. Digital banking also helps customers to save their

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1. Hadid, Khattab & Dr,Siti Omar Sarah & Kim-Soon, Ng & Elmabrok, Ali. The Mediating Role of Customer Satisfaction on the Relation-ship between Digital Service Quality and Customer Loyalty. **Psychology** and Education ISSN: 0033-3077
2. Hadid, Khattab & Kim-Soon, Ng & Elmabrok, Ali. (2020). The Effect of Digital Banking Service Quality on Customer Satisfaction: A Case Study on the Malaysian Banks. *Asian Journal of Applied Science and Technology*. 04. 10.38177/AJAST.2020.4102.
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