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CROSS COUNTRY ANALYSIS OF ONLINE BANKING SERVICE QUALITY IN SOUTH AFRICA AND INDONESIA

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Abstract

Since the introduction of automatic teller machines, the online banking industry have evolved rapidly in order to stay abreast of today's digital savvy customers. By keeping up to date with changes in the external environment as well as consumer needs can elevate the competitive advantage of banks. With that in mind, banks need to ensure that the service quality of the online banking services meets the expectations of its customers. The objective of the study is to evaluate and investigate the online banking customers' perceptions of the service quality of banks in South Africa (SA) and Indonesia (INA). A survey was conducted among more than 300 respondents from both countries. The results revealed that within the eight dimensions of online banking service quality, each of the countries have different experiences when it comes to "high tech" versus "high touch". The study has also found significant differences between the perceptions of both SA and INA's banking customers. By understanding the perceptions of online banking customers in two developing countries can assist financial institutions with the development of new services or technologies that will enhance the online banking experience.

Keywords: Service Quality, Online Banking, Service Marketing, South Africa, Indonesia

JEL Classifications: D1, M3, F6

1. Introduction

Due to the offering of monetary and financial services, the banking industry can be regarded as one of the most important services rendered within a country. Bearing in mind the fair amount of competition in the banking sector, banks ultimately strive in providing better and faster services in order to increase its market share. In addition, in a highly competitive banking environment, it

is often difficult to achieve product differentiation, as bank offerings are similar. According to Rouf *et al.* (2018) the key objective of organizations is to maximize profits and to minimize costs. Maximized profit, can be obtained through increased sales volumes with decreased costs. Increasing sales can be achieved through ensuring a positive service experience which in turn will lead to a favorable perception. This positive perception may lead to customer loyalty, endorsement and repeat receive services. These days, banks understand the importance of service quality, seeing that customer satisfaction, loyalty and a larger market share can be obtained through it. Moghavvemi and Lee (2018) argue that in the banking industry, it is difficult to achieve product differentiation therefore, banks use service quality to set them apart from one another. Ayo (2018) agrees with Moghavvemi and Lee (2018) and argues that superior service quality is an important facet of the banking industry, as it results in customer satisfaction and loyalty. Shayestehfar and Yazdami (2019) came to the conclusion that by providing high quality services to customers, the banks competitive advantage can increase. With that said banks need to, evaluate their service quality on a regular basis and respond to their customers' needs in a timely fashion. This study investigates the service quality in the online banking industry of Indonesia and South Africa.

Based on the preceding contextual background and the literature review that follows, this study aimed to meet the following research objective: to evaluate the perception of customers on the online banking service quality of banks, and to investigate whether there are differences of perception between SA and INA customers on online banking services. The remainder of the article provides the theoretical framework guiding the research, the methods used to design the study, and the results. In conclusion, practical managerial implications and recommendations for future research in some areas is provided.

2. Literature

2.1 Background of online banking

Over the years, a number of changes took place in the South African banking industry such as the regulatory environment, the product offerings and the number of financial institutions. This resulted in a greater level of competition amongst private banks, targeting the low income customers and the previously unbanked market (The Banking Association South Africa, 2014). The growth in the financial services industry led to a market place without boundaries, seeing that unexpected players emerged in the market. The increase of non-traditional banking methods and new entrants who are exploring new opportunities led to the various changes within the financial industry of South Africa (Price Waterhouse & Coopers, 2017). Similarly, in Indonesia, the importance of digital banking solutions along with low cost operation models moved to the top of the priority list for the financial services industry (McKinsey, 2019). In response to the new development, two of the Indonesian banking industry regulator has created six strategic policies that are set to include the leveling, efficiency and competitiveness of the financial service industry. In addition, the aspects concerning innovations and the technological development of financial products are included in the policies of the regulator (OJK, 2018).

The leading banks in both countries' are currently investing many resources in digital banking in order to fulfill customers demand and needs. Banks in the financial industry of South Africa namely, Barclays Africa, Standard Bank, Nedbank and FirstRand are finding new ways such as digital transformation and data mining to enable them to develop solutions to better serve their retail customers and to stay relevant in the growing financial market (Price Waterhouse & Coopers, 2017). Internet banking was first introduced in South Africa in 1996, but since then this service has evolved rapidly. ABSA Bank was the first to offer online services, followed by Nedcor, Standard Bank, FNB and Mercantile Bank that followed soon after (Redlinghuis and Rensleigh, 2010). The adoption of online banking by customers of both countries are increasing rapidly, seeing that consumers are attracted to the convenience, safety and lower costs of online banking. McKinsey (2019) indicated that Indonesia has the highest adoption for digital banking in Asia. In the same light, a study of South African customers indicates that banking on the internet has become a mainstream activity for early adopters while laggards still prefer a visit to a branch (Alfreds, 2015). Brand South Africa (2016) agrees with Alfreds (2015) and states that although

the online banking sector in South Africa is growing, many South Africans still prefer over the counter transactions at a branch. Alfreds (2015) further states that the majority of South Africans are of the opinion that traditional face to face transactions are safer than online banking. Online banking eases banking transactions for customers, by offering customers new improved services that limits the need to visit a bank branch (Hernandez-Murillo *et al.* 2012). This is especially true in the case of South Africa where some customers of the bank are located in very remote areas where banks are kilometers away– assuming that these customers have online access. Online banking has become very convenient as customers can do their banking at any time of the day and every day of the week thus making online banking very beneficiary to both banks and their customers (Wu, 2005). Sankari *et al.* (2015) agree with Wu (2005) and mention that online banking customers are not restricted by time nor the day of the week, as they are eligible to transact twenty-four hours a day and seven days a week. Wu (2005) and Yaseen and Qirem (2018) indicate that cost saving, the reaching of new customer segments through global access and enhancing customer service and satisfaction are some of the benefits that banks can attain by implementing online banking. Benefits that online banking holds for customers include a wide range of services that are not offered at branches and sometimes low or free transactional costs (Sankari *et al.* 2015).

The changes in both the external environment as well as customer behavior has led to the closing of many bank branches, making way for the investment of new online solutions (Evans, 2019). On average, customers visit a branch once or twice a year where in comparison they access their online banking account at least once per day. Evans (2019) indicated that the future of online banking will include exciting new possibilities such as applications that will assist in splitting a bill when out with friends, managing banking through social media and many more. Massive increase in data breaches might occur with time, but banks are spending millions in preventing such breaches. Although customers are becoming more tech-savvy, scammers still try their luck in gaining illegal access to accounts. Due to the increase in fraudulent activities, banks have put various measures in place that will limit these actions in the future (Evans, 2019).

2.2. Service quality and online banking

What is service quality? Service quality is defined by Gronroos (1984) as a global consumer judgement or attitude relating to service and resulting from consumer comparisons of their expectations and perceptions of actual service performance. Service quality is sometimes not objectively measured according to some technical standards but rather subjectively felt by customers and measured relative to customer-determined standards. Parasuraman *et al.* (1988) define customer satisfaction as an expectation-perceived service gap. Ayo (2018) contends that the gap between the organization performance and the performance expectations from customers is a function of customers' satisfaction. The author explains that customer satisfaction has a strong upward influence on an organization's financial gain and that higher customer satisfaction levels that are derived from superior services offered result in increased customer loyalty. The SERVQUAL model focuses on the gaps perceived at mainly five different constructs (reliability, tangibility, assurance, empathy, responsiveness), the current study focuses on a slightly different angle that is more technological advance.

Arcand *et al.* (2017) argue that the application of SERVQUAL was mainly conducted in traditional settings such as branch-based banking as well as current in-bank services. Both branch-based and in-bank services are characterized by personal interaction between customers and employees of the bank. The majority of service quality dimensions have been developed to capture the interpersonal nature of service encounters of the traditional service renderers during the transaction process. Various researchers realized that the initial SERVQUAL tool was not adequate to justify measurement of virtual environments where customers mainly interact with technology and the absence of interpersonal interactions. Authors and researchers such as Sadeghi and Hanzae (2010); Butt and Aftab (2013); Hussien and Aziz (2013); Yaseen and Qirem (2018) and Arcand *et al.* (2017) realized the importance of the shift from a traditional service approach of banking to virtual approach and studied the effect of service quality on online banking. The banking industry around the globe was drastically changed by the internet and digital

technologies. Hussien and Aziz (2013) point out that service quality has a positive influence on the financial performance of a company as well as a significant impact on customer satisfaction that influences financial performance. Therefore, banks should move to an e-service quality focused approach in order to retain their customers in the e-environment. Santos (2003) proposed new dimensions for measuring e-service quality as opposed to the traditional SERVQUAL approach. This approach includes the measurement of aspects such as ease of use, appearance, linkage structure, content efficiency, reliability, communication, security, incentive and customer support. Hussien and Aziz (2013) included the following constructs to measure service quality in online banking: usability, reliability, responsiveness, privacy, incentives, fulfillment, efficiency, assurance and empathy.

The rapid adoption of digital and networking technologies enabled banks to deliver services electronically at a lower cost, increased quality and interacting more efficiently with clients and other stakeholders, assuming that the technologies are optimally utilized (Yaseen and Qirem, 2018). Hussien and Aziz (2013) indicate that in order to satisfy and retain customers in the e-commerce environment, the financial sector should focus on e-service quality. Consequently, banks embarked on a strategy to compete in expanding their branch networks and providing a selection of alternative delivery channels such as call centers, mobile banking and online banking including the use of ATM's. Arcand *et al.* (2017) contend that the quality of a website as the technical interface is very important as it replaces human interaction. This is referred to as self- service technology as the service is actually delivered by technology. This fact necessitated the need for defining e-service quality that includes online banking. Butt and Aftab (2013) defined e-service quality as the consumer's overall evaluation and judgement of the excellence and the quality of the e-service offerings in the virtual marketplace.

Various scholars investigated the determination of service quality in the banking sector (Ayo, 2018; Moghavvemi and Lee, 2018; Al-jazzazi and Sultan, 2017; Rouf *et al.* 2018; Shayestehfar and Yazdami, 2019; Yaseen and Qirem, 2018). According to Rouf *et al.* (2018), the importance of service quality for the achievement of businesses has been substantiated in the literature through a plethora of studies. As indicated above, various scholars provided valuable insights into the measurement of service quality using methods such as SERVQUAL and SERVPERF. These methods aim to measure service quality that directly influences customer satisfaction. Arcand *et al.* (2017) argue that the adoption of mobile telephones, spread rapidly to a mass of consumers, which influenced the banking industry heavily. In fact, mobile banking has grown rapidly as a result of the increased number of mobile devices equipped with an internet connection which compliment automated banking machines and internet banking. The challenge is that mobile banking features enhanced flexibility, ubiquity and connectivity and comes replete with proactive capabilities for customizing the offer and seizing the social potential of such devices. Arcand *et al.* (2017) argue that in order to engage and to retain online banking customers, banks need to develop effective and appropriate strategies such as emphasizing and promoting the benefits and value of online banking services.

The current study aims to investigate service quality of online banking services in both South Africa and Indonesia. Shayestehfar and Yazdami (2019) argue that due to the rapid changes in technology and customer behavior, the importance of service quality in the banking services, are now more important than ever. To operate effectively, bank managers need to understand what customers want and how they assess the service quality of the bank (Rouf *et al.* 2018). Ayo (2018) mentioned that organizations such as the banking sector deal with customers on a daily basis and therefore have made it a routine task to survey customers on the service quality experienced. The author continues by stating that previously, service rendering organizations in general did not regard good service quality as very important in ensuring a sustainable competitive advantage over counterparts. Angelova and Zekeri (2011) mention that more recently service organizations engaged in the delivery of good service quality provision to customers as a major means of maintaining their relevance and consequently for the assurance of customer satisfaction. Ayo (2018) points out that although service quality has been investigated in electronic environments and came up with interesting results, e-banking received less attention. However, Butt and Aftab (2013) are of the opinion that when it comes to integrating modern technology into the business process, information technology in general and the internet, the

banking industry, take the lead. It thus demonstrates the importance of an investigation into this technologically advanced service.

3. Methodology

To achieve the objectives of the study, a quantitative research approach was followed through the use of questionnaires. Since it is difficult to determine the total population of bank customers who adopt online banking in both countries, a non-probability sampling method has been used. The criteria of respondents are bank customers that fall between the ages of 20 years and older and who have been actively using online banking for all transactions. An equal number of sample elements, namely 171 respondents were selected in both South Africa, Tshwane region and Indonesia, Jakarta region. The data collection was completed by the end of the second semester in 2019. A motivation why the two countries were chosen is due to the fact that South Africa and Indonesia have a similar score in the Digital Evolution Index (Chakravorti *et al.* 2017). With the same drivers of growth in digitalization, it will be interesting to know the effect on services of the banking industry in both countries and whether there is any difference of perceptions regarding online banking that the customers experience.

This study adopted the eight dimensions of service quality as identified by Kenova and Jonasson (2006). The dimensions include: efficiency, fulfillment, system, privacy, assurance and trust, site aesthetic, responsiveness and contact. These dimensions were converted into 21 main questions which were measured on a 7 point Likert scale. Before the interview process commenced, the respondents were requested to respond to questions related to their banking behavior and demographics.

The data gathered for this study were analyzed by means of the SPSS software package. The data analysis includes descriptive statistics, independent t-tests and the comparison of means. The analysis were conducted for both countries' set of samples in order to determine each dimension of the online banking service quality. The results are presented and discussed based on the study's objectives. First the basic descriptive statistics of the samples for the eight dimensions of online banking service quality is described. Secondly, the analysis of the independent sample test which determines whether there are differences between South African and Indonesian respondents on their perception of the eight dimensions of online banking service quality are discussed.

4. Findings

4.1. Customers' perception of online banking service quality in each country

The study evaluates the perception of the bank's customers by analyzing the mean value of the eight dimensions of online banking service quality within the respective set of SA and INA samples (Table 1).

In the SA sample ($n = 171$), the banks received the highest score for efficiency ($M = 6.00$, $SD = 0.95$). Efficiency is a measure of how well a system is performing for a particular service offering. This dimension translates to accessibility and ease of navigating the bank's website and the relative time and efficiency in completing transactions through the bank's website. The findings imply that the customers experienced SA banks as fast and convenient in providing online banking services.

The lowest score for SA banks were perceived in the contact dimension ($M = 5.25$, $SD = 1.38$). It suggests that on a scale of 7, respondents "somewhat agree" to the statements representing the contact dimension. This can be an area for improvement for SA banks as the dimension has indicated that the banks' ability for being in touch with its customers was less than expected.

Table 1. Descriptive statistic: South Africa and Indonesia

Dimensions, Countries	N	Mean	Std. Deviation	Standard Error Mean	
Efficiency	South Africa	171	6.00	0.95	0.07
	Indonesia	171	5.71	0.91	0.07
Fulfillment	South Africa	171	5.76	0.89	0.07
	Indonesia	171	5.42	1.00	0.08
System	South Africa	171	5.66	1.09	0.08
	Indonesia	171	5.50	1.06	0.08
Privacy	South Africa	171	5.87	1.13	0.09
	Indonesia	171	5.68	1.05	0.08
Assurance/Trust	South Africa	171	5.39	0.90	0.07
	Indonesia	171	5.05	0.86	0.07
Site/Aesthetic	South Africa	171	5.80	1.06	0.08
	Indonesia	171	5.59	1.11	0.08
Responsiveness	South Africa	171	5.51	1.33	0.10
	Indonesia	171	5.69	0.78	0.06
Contact	South Africa	171	5.25	1.38	0.11
	Indonesia	171	5.74	0.83	0.06

On the contrary, in the INA sample set ($n = 171$), the highest mean score was the contact dimension ($M = 5.74$, $SD = 0.83$). It implies that Indonesian customers agreed that their banks have done a good job in terms of reaching out to the customers. However, the lowest average score was for assurance and trust ($M = 5.05$, $SD = 0.86$), suggesting that the industry needs to improve on the safety and security aspect of their online banking in order to gain confidence from the customers.

4.2. Independent sample test

One of main aims of this study is to investigate whether there are differences of perception between SA & INA bank customers on online banking services dimensions. The study conducted an independent sample t-test to identify significant differences between the mean two samples. The result is in Table 2.

The study found that there are significant differences between SA and INA in four dimensions of online service quality, namely efficiency, fulfillment, assurance & trust, and contact. Efficiency is defined as how well a system is performing for a particular service. Five aspects were measured for this construct namely, ability to access a bank's website quickly; fast to complete a transaction through the website; easy using of a bank's website and ease of following the instructions on the internet banking website. In the dimension of efficiency, the data showed that SA banks are significantly perceived better than INA ($t(340) = 2.80$, $p = 0.01$).

Fulfillment is defined as the act or process of handling, executing and delivering of a product or service to a customer. In the questionnaire, this dimension was measured with four questions. The first question is to measure the fulfillment of a bank's promise to solve a query by a certain time. Another question measures the accuracy of the bank's online transaction and the services delivered through the bank's website. The last question measured, whether the bank's site makes accurate promises about the services delivered. In the dimension of *fulfillment* the data showed that SA banks are significantly perceived better than INA ($t(335) = 3.30$, $p = 0.00$).

Assurance and trust refers to the safety and security of customer transactions with the bank, which creates customer confidence. Aspects measured are confidence in the bank's technological services; bank's name is well known for reputation and preference of personal banking over and above online banking. In the dimension of *assurance and trust* the data showed that SA banks are significantly perceived better than INA ($t(340) = 3.50$, $p = 0.00$).

Table 2. Independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Efficiency	Equal variances assumed	1.01	0.32	2.80	340.00	0.01	0.28	0.10	0.08	0.48
	Equal variances not assumed			2.80	339.55	0.01	0.28	0.10	0.08	0.48
Fulfillment	Equal variances assumed	6.21	0.01	3.30	340.00	0.00	0.34	0.10	0.14	0.54
	Equal variances not assumed			3.30	335.00	0.00	0.34	0.10	0.14	0.54
System	Equal variances assumed	0.00	1.00	1.38	340.00	0.17	0.16	0.12	-0.07	0.39
	Equal variances not assumed			1.38	339.75	0.17	0.16	0.12	-0.07	0.39
Privacy	Equal variances assumed	0.65	0.42	1.56	340.00	0.12	0.18	0.12	-0.05	0.42
	Equal variances not assumed			1.56	337.84	0.12	0.18	0.12	-0.05	0.42
Assurance & Trust	Equal variances assumed	0.59	0.44	3.50	340.00	0.00	0.33	0.10	0.15	0.52
	Equal variances not assumed			3.50	339.27	0.00	0.33	0.10	0.15	0.52
Site Aesthetic	Equal variances assumed	4.90	0.03	1.78	339.00	0.08	0.21	0.12	-0.02	0.44
	Equal variances not assumed			1.78	338.41	0.08	0.21	0.12	-0.02	0.44
Responsiveness	Equal variances assumed	28.71	0.00	-1.56	340.00	0.12	-0.18	0.12	-0.41	0.05
	Equal variances not assumed			-1.56	275.11	0.12	-0.18	0.12	-0.42	0.05
Contact	Equal variances assumed	31.28	0.00	-3.98	340.00	0.00	-0.49	0.12	-0.73	-0.25
	Equal variances not assumed			-3.98	278.48	0.00	-0.49	0.12	-0.73	-0.25

Contact dimension translates to the banks' ability to reach out or be in touch with its customers. The result indicated that INA bank's customers' service consultants are easily accessible by telephone. Customers also perceived that the website always has customer service representatives available online when they need help. In the dimension of *contact* the data showed that INA banks are significantly perceived better than SA ($t(278) = 3.98, p = 0.00$).

5. Discussion and conclusion

There are several important findings of this paper, along with practical implications and a contribution that responds to the objectives of the study. First aim is to evaluate the perception of customers on the online banking service quality of banks. The study concludes that SA banks excel in the dimension of efficiency of being fast and convenient. This aspect indicates its excellence in the technological aspect of the online banking services or 'high tech'. This may imply that the banking industry is supported by highly skilled IT supportive staff that attempt to stay ahead of competitors. Budhwar and Bhatnagar (2007) argue that a good level of supportive staff engagement can lead to high retention and therefore companies like banks must develop a solid talent management strategy to stay abreast of competitors. The research also indicates the importance of understanding customers' needs when it comes to service delivery and product

offerings. Even though “person-related” service characteristics like empathy, politeness, and similarity are important, “offer-related” characteristics like customization, competence, and promptness of the products or service will determine the length of the customers’ relationship with their banks (Gill *et al.* 2006). However, it is perceived low on the contact dimension, which is defined as the ability to engage with the customers or ‘high touch’. This finding does not come as a surprise as proper service quality rendered by especially public enterprises receives a lot of criticism lately due to amongst others poor trained staff members and needs to be further investigated (Berry and Parasuraman, 2004; Joseph, 1996). On the contrary, INA banks perform very well in reaching out directly to their customers or ‘high touch’ in parallel with their online banking services. However, INA bank has low perceptions of assurance and trust which translates to the safety features of technology. Continues investment in attempts to ensure a safe and reliable online banking system should be applied (Lu *et al.* 2010; Yousafzai *et al.* 2005).

The second objective is to investigate whether there are differences of perception between SA and INA customers on online banking services. Significant differences were found in four dimensions of online banking service quality, namely: fulfilment, efficiency, assurance and trust and contact. Additionally, the result suggested that SA is superior in “high tech” while INA excels in “high touch”. The result is a very interesting finding on how both countries approach the service from different emphasis. One approach is focusing on technology and the other still relying on touch points. The practical implication lies on the room for improvement for both countries. Particular variables should be analyzed in detail in terms of performance and corrective measurements should be applied in order to satisfy the particular target audience (Ariff *et al.* 2012; Kumbhar, 2011).

The findings give valuable practical implications for the banking industry in each country. The study found that assurance and trust are the main concern in the Indonesian online banking industry. INA banks are recommended to improve on the safety feature of online banking and master the “high tech” with good response on online requests and problems. SA banks can improve on the “high touch” aspect parallel with their online banking, engaging more with their customers still remains important especially for high-valued customers. The study also contributes academically by enriching studies on the recent technological aspect of the service and banking industry. Furthermore, it is adding to the cross-country analysis literature on fast growing countries of Africa and Asia continents, which is rarely investigated together simultaneously (Alexander *et al.* 2017).

As with any other studies, limitations exist and subject to improvement in future studies. The research population might not be representative enough for each country's online banking population, thus a wider and elaborative study can be conducted in the future. Moreover, the study can also extend the findings to the outcomes construct of Online Banking Dimensions. For example, satisfaction, loyalty etc, to provide confirmation for the end result of an effort to increase online banking service quality. Lastly, the current study is cross-sectional, and there is a need for longitudinal study to observe the evolution of online banking in each country. The contribution of this study stems from the fact that no comparison study was made between these two countries. South Africa and Indonesia have a similar score in the Digital Evolution Index (Chakravorti *et al.* 2017). As mentioned before, with the same drivers of growth in digitalization between the two countries, the study provide the necessary motivation to investigate the effect of services in the banking industry in both countries and whether there is any difference of perceptions regarding online banking that the customers experience.

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