CUSTOMERS SATISFACTION IN INTERNET BANKING: A REVIEW (2008–2017)

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ABSTRACT

This paper presents a systematic review of the literature of 44 research articles published customers' satisfaction in Internet banking between (2008 and 2017). This review aims to address this gap in the literature by identifying the antecedents predicting customer satisfaction in Internet banking literature. Achieving our aims will bring together fragmented literature to serve as a foundation for research into customer satisfaction in Internet banking involving the use of Internet banking and other related digital platforms such as the mobile-banking. The results show that Asian countries recorded the highest number of publications. Also, we identified limited research from specific regions. For example, we could not identify any peer-reviewed articles from some of the European countries such as Sweden, The Netherlands, Germany, Belgium, Denmark, and Norway. Also, there are limited studies identified from the Middle East. And even countries that have well-developed e-commerce systems from the Middle East and Africa such as Egypt, the United Arab Emirates, Lebanon, Israel, and South Africa have no published papers. Secondly, the study identified SERVEQUAL & e-SERVEQUAL as the main theoretical framework. Third, the result shows that the main predictors of satisfaction in Internet banking are service quality, information quality, and product quality. Finally, this study confirmed the mediating role of customer satisfaction on customer loyalty toward those banks offering the Internet banking service. A comprehensive list of references is presented, along with an agenda for future research to cover the identified gaps.

KEYWORDS

Internet Banking, e-Commerce, e-Satisfaction, Customer Satisfaction

1. INTRODUCTION

The concept of customer satisfaction has grown in popularity in the past two decades in banking and marketing management literature. The concept has been empirically examined as a consequence and an antecedent of other marketing related variables of interest. As an antecedent, customer satisfaction has been used to predict customer loyalty, customer retention and attitude in the Internet banking literature (Amin, 2016; Khan, Rahman & Fatma, 2016; Jovović, Femić-Radosavović & Ipovina-Božović, 2017).

The use of Internet banking has placed additional responsibilities on users to transact with the service (Lassar, Manolis & Lassar, 2005). Also, due to the technological development of e-commerce, new features in Internet banking services and several challenges have emerged, e.g. trust elements, security issues, convenience, and technological challenges acceptance (Vivi & Novita, 2017; Jahan & Khan, 2018). These challenges make it essential for banks to track customers' satisfaction to maintain and develop their websites based on their customers' needs and expectations. Given the importance of customer satisfaction and its positive effects on customer loyalty, customer retention, and word-of-mouth behavior, researchers need to revisit definitions and conceptualization of previously identified relational antecedents in a technological context to capture changes in customer relationships and behavior (Hong & Wang, 2009). Review of literature shows that researchers have failed to provide a comprehensive overview of the concept of customer satisfaction in the context of Internet banking.

Thus, this study aims to address this gap in the literature by identifying the antecedents predicting customer satisfaction in the Internet banking literature. That will bring together fragmented literature to serve as a foundation for research into customer satisfaction in Internet banking involving the use the internet platforms from the personal computer to mobile phone. Thus, the main research questions this paper seek to address are:

1. What are the main antecedents of customers' satisfaction in Internet banking?
2. What are the theoretical developments related to customers' satisfaction in Internet banking?

The rest of the paper is organized as follow. First, the paper presents previous review studies on Internet banking context. After, it presents used method to collect related articles. Next, it discusses the main findings of these papers focusing on; journal and year of publication, the nationality of the research sample, the theoretical framework used, and antecedents measured and main findings. Finally, overall conclusions are drawn to present main gaps in present knowledge, with an outline for future research agenda to gain a deeper understanding of the current knowledge.

2. RELATED LITERATURE

Few studies provide a review of Internet banking. However, previous reviews focused on different aspects of that research context. For example, Goudarzi et al. (2013) provide an overview of the extant research into the relationships between trust and Internet banking adoption as perceived by banks' customers. They covered empirical studies on the factors of trust and the adoption of Internet banking. Another review by Hanafizadeh, Keating, and Khedmatgozar (2014) focused on Internet banking adoption. Their findings revealed that interest in the topic of Internet banking adoption had grown significantly. Similarly, a systematic literature review by Keskar and Pandey (2018) identify relevant works in Internet banking between 2002 and 2016. Their findings indicate that issues such as cyber-security, trust, and web-design and their effects on customer loyalty, customer retention, and customer satisfaction have not been investigated in depth. The major limitation of the study is that the authors failed to present the antecedents of customer satisfaction in the Internet banking literature. Thus, this literature review aims to fill this gap in our current knowledge about the antecedents predicting customer satisfaction in Internet banking.

3. RESEARCH METHOD

This review investigates customer satisfaction in Internet banking from a multidisciplinary perspective. In regard, we selected peer-reviewed articles from 9 bibliographic databases (ACM Digital Library, Emerald, IEEE Xplore, Sage journals online, Science Direct, Scopus, Taylor & Francis online, Web of Science, and Wiley online library). Peer-reviewed journals were considered based on their knowledge validity and their highest impact on the research field (Podsakoff et al., 2005).

To ensure the relevance of the articles in the study of consumers' satisfaction in Internet banking. We used a combination of 12 keywords. Which means, each of the selected articles is required to contain one of the following combinations of keywords in both the title and the abstract:

1. *Internet Banking* AND *Customer Satisfaction*.
2. *Internet Banking* AND *Consumer Satisfaction*.
3. *Internet Banking* AND *User Satisfaction*.
4. *Online Banking* AND *Customer Satisfaction*.
5. *Online Banking* AND *Consumer Satisfaction*.
6. *Online banking* AND *User Satisfaction*.
7. *Electronic banking* AND *Customer Satisfaction*.
8. *Electronic banking* AND *Consumer Satisfaction*.
9. *Electronic Banking* AND *User Satisfaction*.
10. *e-Banking* AND *Customer Satisfaction*.
11. *e-banking* AND *Consumer Satisfaction*.
12. *e-banking* AND *User Satisfaction*.

Also, the search of the articles was limited to journals in the English language between 2008 and 2017. The rationale is to capture the latest change in investigating the antecedents of customer satisfaction in Internet banking. We excluded 2018 so that we can analyze the yearly trend from 2008-2017, as the research was carried out in September 2018.

The first search generated 176 articles, which were further limited to those directly focus on investigating online customer satisfaction in Internet banking, and other themes of Internet banking research such as service quality, perceived risk, and trust were excluded from this review if the since it was not related to customer satisfaction. Finally, we included 44 articles that investigated the antecedents of customer satisfaction in Internet banking.

4. DESCRIPTIVE FINDINGS OF THE STUDY

4.1 Journal and Year of Publication

The name of the journal in which each article was published is coded to provide an understanding of which journals have published more related articles (the prevalence of Internet banking-related research). Also, the year of publication of each paper is coded to determine which journals have published more related articles and how much focus has been assigned to the research focus (yearly trend). This assist in identifying the trend in publication over the years.

Figure 1, shows that the highest number of publications was recorded between 2013 and 2014, and continue to decline until 2017. The decline may be attributed to difficulties researchers face in getting into contact with the financial institutions to get approval to carry such research with their customers. Also, bank consumers are mostly refusing to disclose their related financial information as confirmed by Carignani and Gemmo (2018).

Figure 1. Number of articles published per year

Looking at the journal outlets (Table 1), the 44 articles were published in 33 journals. 10 articles (22,7 %) of the total were journals specialized in banking, and financial institutions journals, 5 articles (11,4%) were computer and e-commerce journals, and 29 articles (65,9 %) of the collected articles were published by other different management and marketing disciplines such as management science, marketing, human behavior, and life science.

Regarding the total publications for each journal, seven journals published two or more articles between 2008 and 2017, the rest published one article each (Table 1). Those journals published 2 and more articles are:

1. International Journal of Bank Marketing (6 articles).
2. Journal of banking and commerce (2 articles).
3. Industrial Management & Data System (2 articles).
4. Procedia Economics and Finance (2 articles).
5. Procedia - Social and Behavioral Sciences (2 articles).
6. Total Quality Management (2 articles).
7. Total Quality Management & Business Excellence (2 articles).

Table 1. Journal Outlets per years and amount of publication

Journal		Total
1. Annals of Management Science	2014 (1)	1
2. Asia Pacific Journal of Multidisciplinary Research	2015 (1)	1
3. Communications of the ACM	2008 (1)	1
4. Computers in Human Behavior	2010 (1)	1
5. Decision	2014 (1)	1
6. e-Service Journal	2011 (1)	1
7. Expert Journal of Marketing	2017 (1)	1
8. Global Business Review	2013 (1)	1
9. Industrial Management & Data Systems	2011 (1), 2013 (1)	2
10. International Journal of Bank Marketing	2013 (2), 2015 (1), 2016 (2), 2017 (1)	6
11. International Journal of Marketing & Business Communication	2012 (1)	1
12. International Journal of Marketing Studies	2011 (1)	1
13. International Journal of Scientific Management and Development	2014 (1)	1
14. Research	2012 (1)	1
15. Journal of Central Banking Theory and Practice	2017 (1)	1
16. Journal of Banking and Commerce	2009 (1), 2014 (1)	2
17. Journal of Islamic Marketing	2010 (1)	1
18. Journal of Marketing Development and Competitiveness	2014 (1)	1
19. Life Science Journal	2012 (1)	1
20. Management & Marketing. Challenges for the Knowledge Society	2015 (1)	1
21. Management Science Letters	2013 (1)	1
22. Management theory and studies for rural business and infrastructure development	2011 (1)	1
23. Marketing Intelligence & Planning	2009 (1)	1
24. Online Information Review	2014 (1)	1
25. Perspectives of Innovations, Economics & Business	2010 (1)	1
26. Procedia - Social and Behavioral Sciences	2012 (1), 2013 (1)	2
27. Procedia Economics and Finance	2016 (2)	2
28. Qualitative Research in Financial Markets	2015 (1)	1
29. The Asian Journal of Technology Management	2016 (1)	1
30. The IUP Journal of Marketing Management	2009 (1)	1
31. Total Quality Management	2009 (1), 2013 (1)	2
32. Total Quality Management & Business Excellence	2012 (1), 2015 (1)	2
33. Vision	2015 (1)	1

4.2 Nationality of the Research Sample

The articles were coded according to the nationality of the research sample. This helps to identify the most dominant country in this field of research. The 44 articles were produced by research samples from 22 different nationalities (Figure 2). The findings in figure 2 show that Asian samples were the most investigated (32 articles, 72.7 % of the total publications). In the Asian region, India was dominant with 9 articles, that is followed by Iran (6 articles), Taiwan and Malaysia (3 articles each), Indonesia and Pakistan (2 articles each), and Brunei Darussalam, Bangladesh, China, Hong Kong, Philippines, Sri Lanka, and Thailand (1 article each).

Figure 2. Number of publications per frame of sample nationality

After the Asian countries, research samples from European countries came second with eight publications from five countries. Spain 3 articles, followed by Greece 2 articles, and finally one article each from each of Latvia, Montenegro, and Portugal. Finally, the Middle East came last with two articles, one from Kuwait and one from Saudi Arabian.

4.3 Theoretical Framework

One objective of this study is to examine the theoretical developments in the literature that investigated the Internet banking customer satisfaction. 33 articles out of the 44 articles reviewed in this study used an explicit theoretical framework to test customer satisfaction. The remaining 11 articles provided no clear theories in their study.

In determining the theories used in this reviewed articles (see Table 2), we found that (28 articles=63%) used SERVQUAL or the extended electronic service quality approaches (e-SERVEQUAL) as the theoretical framework. Two articles used the Technology acceptance model (TAM), and the last two articles used the customer satisfaction index (CSI) and end-user computing satisfaction (EUCS). These findings show that e-SERVEQUAL is the most dominant theory in this field of research.

Table 2. Used Theoretical Frameworks

SERVEQUAL & e-SERVEQUAL	Khurana, 2009; Riquelme, Mekkaoui & Rios, 2009; Rod, Ashill, Shao & Carruthers, 2009; Sadeghi & Hanzaee, 2010; Santouridis , Trivellas & Reklitis, 2009; Ahmad & Al-Zu'bi, 2011; Rullis & Sloka, 2011; Honore Petnji Yaya, Marimon & Casadesus, 2011; Rahimi, Bidmeshk & Mirzaalian, 2012; Rajpara & Mistry, 2012; Zavareha et al., 2012; Ariff, Yun, Zakruan & Ismail, 2013; Butt & Aftab, 2013; Darvish et al., 2013; Liébana-Cabanillas, Muñoz-Leiva, & Rejón-Guardia, 2013; Petnji Yaya, Marimon & Casadesus, 2013; Kampakaki & Papathanasiou, 2014; Roche, 2014; Liang & Pei-Ching, 2015; Raza, Jawaid & Hassan, 2015; Sikdar, Kumar & Makkad, 2015; Amin, 2016; Asad, Mohajerani & Nourseresh, 2016; Assegaff, 2016; Ling, Ferna, Boona & Huat, 2016; Krisnanto, 2017.
Technology acceptance model (TAM)	Liao & Cheung, 2008; George & Kumar, 2013.
Customer satisfaction index (CSI)	Khan, Rahman & Fatma, 2016.
The end-user computing satisfaction (EUCS)	Chen, Hsiao & Hwang, 2012.

4.4 Methods Used

With regards to the research methods, all the articles reviewed used a quantitative research approach to investigate customer satisfaction in the Internet banking sector.

4.5 Antecedents of Customer satisfaction in Internet Banking

After reviewing the 44 articles identified in this study, we found out that the researchers have investigated 77 different antecedents. 51 out of the 77 antecedents were tested once, and 16 were tested repeatedly by several researchers who indicate the relevance of the antecedents to customers' satisfaction in Internet banking research (see table 2). Therefore, the repeated antecedents were put into three main categories: (1) service quality (2) information quality and (3) product quality. Besides, 12 articles empirically confirmed the mediating role of customer satisfaction on customer loyalty toward bank offers their Internet banking service (see table 3). Similarly, the findings confirmed the mediating role of trust in customers' satisfaction. However, some contradictory findings were identified, for instance, Yoon, (2010) found that ease of use (EOU) had no

significant influence on customer satisfaction in Internet banking as perceived by Chinese Internet banking users. Also, George and Kumar (2014) found that efficiency and website attribute dimensions did not affect Indian customers' satisfaction from the Internet banking service. Finally, we identified that the recent direction of studies on Internet banking is directed toward the effect of brand personality on customer satisfaction as explored by Ong, Nguyen & Alwi (2017).

Table 3. The most repeated antecedents while testing customer satisfaction in Internet banking service

Tested Antecedents	Description	Publications
Service Quality Variables		
Accessibility/Ease of use/ Usability/ Website navigability/ Availability/ Procedural fairness	Refers to user-friendliness while using the IB services. Also, to all those factors related to the ability to get on the site easily and moving quickly back and forth through the Web-page when needed (Krishnamurthy, 2005)	Liao & Cheung, 2008; Khurana, 2009; Yoon, 2010; Sadeghi & Hanzaee, 2010; Ahmad & Al-Zu'bi, 2011; Seyal & Rahim, 2011; Rullis & Sloka, 2011; Honore Petnji Yaya, Marimon & Casadesus, 2011; Chen, Hsiao & Hwang, 2012; Zavareha et al., 2012; Rajpara & Mistry, 2012; Hasan et al., 2013; George & Kumar, 2013; Liébana-Cabanillas, Muñoz-Leiva, & Rejón-Guardia, 2013; Marakarkandy & Yajnik, 2013; Petnji Yaya, Marimon & Casadesus, 2013; Mojares, 2014; George & Kumar, 2015; Sikdar, Kumar & Makkad, 2015; Asad, Mohajerani & Nourseresh, 2016.
Assurance/ Trust	That involves the confidence that the customer feels in dealing with the website (Krishnamurthy, 2005).	Santouridis, Rivellas & Reklitis, 2009; Chen, Hsiao & Hwang, 2012; Ariff, Yun, Zakruan & Ismail, 2013; Mohsin Butt & Aftab, 2013; Liébana-Cabanillas, Muñoz-Leiva, & Rejón-Guardia, 2013; Heidari, Mousakhani & Rashidi, 2014; Kampakaki & Papathanasiou, 2014; Roche, 2014; Raza, Jawaid & Hassan, 2015; Sikdar, Kumar & Makkad, 2015;
Empathy	The provision of caring and providing individualized attention to the customers (Santouridis, Rivellas & Reklitis, 2009).	Santouridis, Rivellas & Reklitis, 2009; Heidari, Mousakhani & Rashidi, 2014; Kampakaki & Papathanasiou, 2014; Roche, 2014; Raza, Jawaid & Hassan, 2015.
Fulfillment	It is the extent to which the IB promise about order delivery and item availability are fulfilled (Parasuraman et al. 2005).	Rahimi, Bidmeshk & Mirzaalian, 2012; Zavareha et al., 2012; Zakruan & Ismail, 2013; George & Kumar, 2014; Ariff, Yun, Amin, 2016; Asad, Mohajerani & Nourseresh, 2016.
Reliability of the service	Referring to the consistency of performance, including punctuality and precision concerning information and invoicing procedures, and doing what the organization promised to do (Bergman and Klefsjö, 2010).	Liao & Cheung, 2008; Khurana, 2009; Santouridis, Rivellas & Reklitis, 2009; Rullis & Sloka, 2011; Rahimi, Bidmeshk & Mirzaalian, 2012; Rajpara & Mistry, 2012; Zavareha et al., 2012; Heidari, Mousakhani & Rashidi, 2014; Kampakaki & Papathanasiou, 2014; Roche, 2014; George & Kumar, 2014; Raza, Jawaid & Hassan, 2015; Asad, Mohajerani & Nourseresh, 2016;
Responsiveness/ Contact responsiveness/ Complaint management/ Assistance/ Communication/ Support/ Problem handling	Refers to the willingness and ability of the service provider to meet and adapt to customer needs, for example, a service provider may be willing to deliver outside of normal delivery times and perhaps may have systems for responding to customer complaints on the same day (Lancaster & Massingham, 2011).	Liao & Cheung, 2008; Khurana, 2009; Santouridis, Rivellas & Reklitis, 2009; Yoon, 2010; Rajpara & Mistry, 2012; Ariff, Yun, Zakruan & Ismail, 2013; Hasan et al., 2013; Honore Petnji Yaya, Marimon & Casadesus, 2013; George & Kumar, 2014; Heidari, Mousakhani & Rashidi, 2014; Kampakaki & Papathanasiou, 2014; Louriero, Kaufmann & Rabino, 2014; Roche, 2014; Unyathanakorn & Rompho, 2014; Raza, Jawaid & Hassan, 2015; Asad, Mohajerani & Nourseresh, 2016;
Tangibles	In service quality, it refers to the appearance of physical facilities, equipment, personnel and communicational equipment (Parasuraman, 1988).	Heidari, Mousakhani & Rashidi, 2014; Kampakaki & Papathanasiou, 2014.

Usefulness	It is the degree to which the Internet banking users believe that using Internet banking would enhance his or her performance (Sadeghi & Hanzae, 2010)	Liao & Cheung, 2008; Sadeghi & Hanzae, 2010; George & Kumar, 2013; Liébana-Cabanillas, Muñoz-Leiva, & Rejón-Guardia, 2013; Maria Correia Loureiro, Rüdiger Kaufmann & Rabino, 2014.
Information System Variables		
Accuracy	Refers to how accurate and complete the online data offered by the bank (Chen, Hsiao & Hwang, 2012)	Riquelme, Mekkaoui & Rios, 2009; Seyal & Rahim, 2011; Chen, Hsiao & Hwang, 2012; Marakarkandy & Yajnik, 2013; Mojares, 2014.
Appearance/ Site organization/ Design/ Layout/ Structure/ Site aesthetics/ Format	Refers to aesthetics features and content as well as the structure of the website. Which are visually appealing, fascinating, and pleasing to the eye (Kassim & Abdullah, 2010)	Sadeghi & Hanzae, 2010; Yoon, 2010; Ahmad & Al-Zu'bi, 2011; Seyal & Rahim, 2011; Chen, Hsiao & Hwang, 2012; Zavareha et al., 2012; Ariff, Yun, Zakruan & Ismail, 2013; Hasan et al., 2013; Marakarkandy & Yajnik, 2013; Amin, 2016; Asad, Mohajerani & Nourseresh, 2016; Ling, Ferna, Boona & Huat, 2016.
Content/ Information quality/ Informational fairness	Refers to the adequacy and accuracy of the Useful information users get when visiting a website (Ladhari, 2010).	Riquelme, Mekkaoui & Rios, 2009; Rod, Ashill, Shao & Carruthers, 2009; Santouridis, Rivellas & Reklitis, 2009; Baskar & Ramesh, 2010; Sadeghi & Hanzae, 2010; Yoon, 2010; Ahmad & Al-Zu'bi, 2011; Seyal & Rahim, 2011; Chen, Hsiao & Hwang, 2012; Zhu & Chen, 2012; Marakarkandy & Yajnik, 2013; Mojares, 2014; Seyal & Rahim, 2011; Chen, Hsiao & Hwang, 2012; Hasan et al., 2013; Marakarkandy & Yajnik, 2013; Assegaff, 2016; Ling, Ferna, Boona & Huat, 2016.
Timelines	It indicates that the web-bank system provides a quick response and up-to-date information (Chen, Hsiao & Hwang, 2012)	Riquelme, Mekkaoui & Rios, 2009; Seyal & Rahim, 2011; Chen, Hsiao & Hwang, 2012; Marakarkandy & Yajnik, 2013.
Product Quality Variables		
Convenience	It involves conducting transactions more easily and efficiently through the bank website (Ling et al., 2016)	Sadeghi & Hanzae, 2010; Ahmad & Al-Zu'bi, 2011; Ling, Ferna, Boona & Huat, 2016.
The efficiency of the website	It involves the speed and functionality of the bank website all the time (Khurana, 2009)	Khurana, 2009; Ahmad & Al-Zu'bi, 2011; Honore Petnji Yaya, Marimon & Casadesus, 2011; Rajpara & Mistry, 2012; Ariff, Yun, Zakruan & Ismail, 2013; Hasan et al., 2013; Petnji Yaya, Marimon & Casadesus, 2013; George & Kumar, 2014; Mojares, 2014; Sikdar, Kumar & Makkad, 2015; Amin, 2016; Asad, Mohajerani & Nourseresh, 2016.
Security /Privacy/ System integrity	That involves the confidence that the customer feels toward the IB and the associated infrastructure ability to protect their personal information during transaction and storage (Kautonen & Karjaluoto, 2008).	Liao & Cheung, 2008; Khurana, 2009; Sadeghi & Hanzae, 2010; Yoon, 2010; Ahmad & Al-Zu'bi, 2011; Honore Petnji Yaya, Marimon & Casadesus, 2011; Rajpara & Mistry, 2012; Rahimi, Bidmeshk & Mirzaalian, 2012; Zavareha et al., 2012; Ariff, Yun, Zakruan & Ismail, 2013; Hasan et al., 2013; Petnji Yaya, Marimon & Casadesus, 2013; George & Kumar, 2014; Mojares, 2014; Roche, 2014; Asad, Mohajerani & Nourseresh, 2016; Ling, Ferna, Boona & Huat, 2016.
Outcomes of Satisfaction		
Loyalty	A deeply held commitment to re-buy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior (Oliver, 1999)	Honore Petnji Yaya, Marimon & Casadesus, 2011; Ahmad & Al-Zu'bi, 2011; Rullis & Sloka, 2011; Mohsin Butt & Aftab, 2013; Ariff, Yun, Zakruan & Ismail, 2013; Petnji Yaya, Marimon & Casadesus, 2013; Heidari, Mousakhani & Rashidi, 2014; Kampakaki & Papathanasiou, 2014; Liang & Pei-Ching, 2015; Amin, 2016; Khan, Rahman & Fatma, 2016; Jovović, Femić-Radosavović & Ipovina-Božović, 2017.

5. CONCLUSIONS AND RESEARCH AGENDA

This study aims to provide a review of the antecedents of customer satisfaction in the Internet banking context. The study identified and grouped the repeated antecedents into three categories: service quality, information quality, and product quality (Figure 3) categories.

Figure 3. A framework of the main antecedents predicting the customers' satisfaction with IB as presented by the reviewed articles.

The nationalities of the research samples of the articles reviewed in this study indicate that most of the articles were from the Asian region. We identified limited research from some of the European countries such as Sweden, The Netherlands, Germany, Belgium, Denmark, and Norway. Besides, there are no studies identified from some countries from the Middle East and African region that have well-developed e-commerce systems. Countries such as the United Arab Emirates, Lebanon, Egypt, Israel, and South Africa have no identified publication to retrieve for the present study.

Focusing on the used theory, researchers mainly used SERVEQUAL & e-SERVEQUAL framework. However, the CSI that is well adapted in organizational and national levels were not adopted in testing the customer satisfaction of Internet banking except for one study from Asia, which aimed at exploring factors affecting customer satisfaction in online banking service in Thailand (Unyathanakorn & Rompho, 2014). According to European Organization for Quality (EOQ) and European Foundation for Quality Management (EFQM), the Extended Performance Satisfaction Index (EPSI), which is known formally as the European Customer Satisfaction Index (ECSI) is an essential tool to test organization performance and the level of customer satisfaction to the offered service (Willemsen, 2010).

Finally, with regards to the research methods, all the research papers reviewed used a quantitative research approach to investigate customer satisfaction in the Internet banking sector. Thus there is a need for qualitative research to acquire deeper knowledge in this field. According to Creswell et al. (2007), the qualitative research approach leads to unearthing useful and interesting findings that may help to develop knowledge regarding the investigated research context.

5.1 Further Research

Research design: In stressing the need for qualitative research, more research should use unstructured interviews to investigate customer satisfaction in Internet banking usage. Combinations of quantitative and qualitative approaches also might effectively enhance the tested of the variables. The recommendation is based on the fact that all the studies used quantitative research approach.

Geographical distribution: Future researchers should conduct more research on customer satisfaction in Internet banking in Africa, the Middle East, and North America and the European countries. That may lead to a global understanding of the predictive factors of customer satisfaction.

Theoretical development: According to the use-diffusion model presented by Shih and Venkatesh (2004), diffusion in adopting new technology will lead to a change in consumers' use-diffusion patterns. That change in use-diffusion patterns will, in turn, change outcomes in the form of perceived impact of the used technology, satisfaction with technology, and more interest in future technologies. Considering the importance of Internet banking, there is a need for researchers to applied different theoretical perspectives such as uses and gratification theory to better explain the elements of customer satisfaction based on their gratifications. With the current development of the Internet banking system around the world, and the users' recent experience in using the Internet banking system. Thus, this study suggests that additional theoretical perspective such as the uses and gratifications theory can enhance our knowledge regarding the main antecedents predicting the customers' satisfaction in Internet banking.

Testing of the conceptual model: Another critical issue in the theoretical framework (Figure 3) developed in this review, future researchers should empirically investigate the influence of the antecedents of customer loyalty through the mediation of satisfaction.

5.2 Limitations of the Study

The focus of this review was on satisfaction in Internet banking. A significant body of literature on service quality, perceived risk, and trust, customer retention, customer convention, customer loyalty was ignored. Some articles on the broader topic of Internet banking were excluded from this study. It must be stressed that Internet banking is only one form of electronic banking, which includes mobile banking and other digital banking platforms. Further research could consider expanding by including other forms of electronic banking.

REFERENCES

- Ahmad, A.M.K. and Al-Zu'bi, H.A., 2011. E-banking functionality and outcomes of customer satisfaction: an empirical investigation. *International Journal of Marketing Studies*, 3(1), pp.50-65.
- Amin, M., 2016. Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International journal of bank marketing*, 34(3), pp.280-306.
- Ariff, M.S.M., Yun, L.O., Zakuan, N. and Ismail, K., 2013. The impacts of service quality and customer satisfaction on customer loyalty in internet banking. *Procedia-Social and Behavioral Sciences*, 81, pp.469-473.
- Asad, M.M., Mohajerani, N.S. and Nourseresh, M., 2016. Prioritizing factors affecting customer satisfaction in the internet banking system based on cause and effect relationships. *Procedia Economics and Finance*, 36, pp.210-219.
- Assegaft, S., 2017. The Effect of Service Quality to Customer Satisfaction by Using Internet Banking Service in Jambi. *JURNAL INTERNASIONAL*, 9(1), pp.21-36.
- Baskar, S. and Ramesh, M., 2010. Linkage between online banking service quality and customers. *Perspectives of Innovations, Economics and Business*, 6(3), pp.45-51.
- Carignani, A. and Gemmo, V., 2018. New Media and Privacy the Privacy Paradox in the Digital World: I Will Not Disclose My Data. Actually, I Will... It Depends. *International Journal of Computer (IJC)*, 27(1), pp.201-212.
- Chen, R.F., Hsiao, J.L. and Hwang, H.G., 2012. Measuring customer satisfaction of Internet banking in Taiwan: scale development and validation. *Total Quality Management & Business Excellence*, 23(7-8), pp.749-767.
- Creswell, J.W., Hanson, W.E., Clark Plano, V.L. and Morales, A., 2007. Qualitative research designs: Selection and implementation. *The counseling psychologist*, 35(2), pp.236-264.
- ECBS, 2018. "Banks in Europe" [www] European Banking Resources, Source: <https://www.ecbs.org/banks/>

- George, A. and Kumar, G.G., 2013. Antecedents of customer satisfaction in internet banking: Technology acceptance model (TAM) redefined. *Global business review*, 14(4), pp.627-638.
- George, A. and Kumar, G.G., 2014. Impact of service quality dimensions in internet banking on customer satisfaction. *Decision*, 41(1), pp.73-85.
- George, A. and Kumar, G.G., 2015. Validation of a scale for measuring problems in internet banking and their effect on customer satisfaction. *Vision*, 19(4), pp.312-323.
- Goudarzi, S., Ahmad, M.N., Soleymani, S.A. and Mohammadhosseini, N., 2013. Impact of trust on internet banking adoption: a literature review. *Australian Journal of Basic and Applied Sciences*, 7(7), pp.334-347.
- Hanafizadeh, P., Keating, B.W. and Khedmatgozar, H.R., 2014. A systematic review of Internet banking adoption. *Telematics and informatics*, 31(3), pp.492-510.
- Hasan, D., Mohammad, R.M., Mohamad, M.F. and Ali, R.N., 2013. A survey on relationship between customer satisfaction and electronic banking features: A case Study of Tejarat bank in Iran.
- Heidari, H., Mousakhani, M. and Rashidi, H., 2014. The Impact of Traditional and Electronic Service Quality on Customer Satisfaction, Trust and Loyalty in Banking Industry. *International Journal of Scientific Management and Development*, 2(11), pp.614-620.
- Hoehle, H., Scornavacca, E., Huff, S., 2012. Three decades of research on consumer adoption and utilization of electronic banking channels: A literature analysis. *Decision Support Systems* 54, pp. 122–132.
- Hong, S., & Wang, Y. J., 2009. When relationship marketing collides with technology? *Journal of Relationship Marketing*, 8(3), pp. 218–30.
- Honore Petnji Yaya, L., Marimon, F. and Casadesus, M., 2011. Customer's loyalty and perception of ISO 9001 in online banking. *Industrial Management & Data Systems*, 111(8), pp.1194-1213.
- Jahan, K. and Khan, F., 2018. Assessment of the Factors Influencing Online Banking Customer Satisfaction: A Banking Perspective in Bangladesh. *World*, 8(1), pp.142-158.
- Jahankhani, H., Watson, D. L. and Me, G., 2009. *Handbook of electronic security and digital forensics*. Singapore: World Scientific Pub. Co. p.157
- Jovović, M., Femić-Radosavović, B. and Lipovina-Božović, M., 2017. Comparative analysis of results of online and offline customer satisfaction & loyalty surveys in banking services in Montenegro. *Journal of Central Banking Theory and Practice*, 6(2), pp.65-76.
- Kampakaki, M. and Papathanasiou, S., 2016. Electronic–Banking and Customer Satisfaction in Greece. The Case of Piraeus Bank, *Annals of Management Science*, pp. 56-69.
- Keskar, M.Y. and Pandey, N., 2018. Internet banking: a review (2002–2016). *Journal of Internet Commerce*, 17(3), pp.310-323.
- Khan, I., Rahman, Z. and Fatma, M., 2016. The role of customer brand engagement and brand experience in online banking. *International Journal of Bank Marketing*, 34(7), pp.1025-1041.
- Khurana, S., 2009. Managing service quality: an empirical study on internet banking. *IUP Journal of Marketing Management*, 8(3/4), pp.96-113.
- Krisnato, U., 2017. Empirical study on the relationships of internet banking quality, customer value, and customer satisfaction. *Expert Journal of Marketing*, 5(1), pp. 17-27.
- Lassar, W.M., Manolis, C. and Lassar, S.S., 2005. The relationship between consumer innovativeness, personal characteristics, and online banking adoption. *International Journal of Bank Marketing*, 23(2), pp.176-199.
- Liang, C.C. and Pei-Ching, W., 2015. Internet-banking customer analysis based on perceptions of service quality in Taiwan. *Total Quality Management & Business Excellence*, 26(5-6), pp.550-568.
- Liao, Z. and Cheung, M.T., 2008. Measuring consumer satisfaction in internet banking: a core framework. *Communications of the ACM*, 51(4), pp.47-51.
- Liébana-Cabanillas, F., Munoz-Leiva, F. and Rejón-Guardia, F., 2013. The determinants of satisfaction with e-banking. *Industrial Management & Data Systems*, 113(5), pp.750-767.
- Ling, G.M., Fern, Y.S., Boon, L.K. and Huat, T.S., 2016. Understanding customer satisfaction of internet banking: A case study in Malacca. *Procedia Economics and Finance*, 37, pp.80-85.
- Marakarkandy, B. and Yajnik, N., 2013. Re-examining and empirically validating the End User Computing Satisfaction models for satisfaction measurement in the internet banking context. *International Journal of Bank Marketing*, 31(6), pp.440-455.
- Maria Correia Loureiro, S., Rüdiger Kaufmann, H. and Rabino, S., 2014. Intentions to use and recommend to others: An empirical study of online banking practices in Portugal and Austria. *Online Information Review*, 38(2), pp.186-208.
- Mohsin Butt, M. and Aftab, M., 2013. Incorporating attitude towards Halal banking in an integrated service quality, satisfaction, trust and loyalty model in online Islamic banking context. *International Journal of Bank Marketing*, 31(1), pp.6-23.

- MOJARES, E.K.B., 2014. Customer satisfaction and loyalty among internet banking users of Philippine National Bank in Batangas City. *Asia Pacific Journal of Multidisciplinary Research*, 2(2), pp.41-48.
- Oliver, R.L. (1999), "Whence consumer loyalty?", *Journal of Marketing*, Vol. 63 Special issue, pp. 33-44.
- Ong, K.S., Nguyen, B. and Syed Alwi, S.F., 2017. Consumer-based virtual brand personality (CBVBP), customer satisfaction and brand loyalty in the online banking industry. *International Journal of Bank Marketing*, 35(3), pp.370-390.
- Petnji Yaya, L.H., Marimon, F. and Casadesus, M., 2013. The contest determinant of delight and disappointment: a case study of online banking. *Total Quality Management & Business Excellence*, 24(11-12), pp.1376-1389.
- Podsakoff, P. M., MacKenzie, S. B., Bacharach, D. G. and Podsakoff, N. P. (2005). 'The influence of management journals in the 1980s and 1990s'. *Strategic Management Journal*, Vol. 26, pp. 473-88.
- Rahimi, M., Bidmeshk, O.G. and Mirzaalian, F., 2012. A proposed model of customer e-loyalty measurement in internet banking. *Life Science Journal*, 9(4), pp.2457-2462.
- Rajpara, Y.R. and Mistry, K.D., 2012. Level of Customer Satisfaction While Using Internet Banking: A Study of Anand City. *International Journal of Marketing & Business Communication*, 1(3), pp. 58-65.
- Raza, S.A., Jawaid, S.T. and Hassan, A., 2015. Internet banking and customer satisfaction in Pakistan. *Qualitative Research in Financial Markets*, 7(1), pp.24-36.
- Riquelme, H.E., Mekkaoui, K.A. and Rios, R.E., 1970. Internet banking customer satisfaction and online service attributes. *The Journal of Internet Banking and Commerce*, 14(2), pp.1-6.
- Roche, I.D., 2014. An empirical investigation of internet banking service quality, corporate image and the impact on customer satisfaction; with special reference to Sri Lankan banking sector. *The Journal of Internet Banking and Commerce*, 19(2), pp.1-18.
- Rod, M., Ashill, N.J., Shao, J. and Carruthers, J., 2009. An examination of the relationship between service quality dimensions, overall internet banking service quality and customer satisfaction: A New Zealand study. *Marketing Intelligence & Planning*, 27(1), pp.103-126.
- Rullis, H. and Sloka, B., 2011. Internet banking quality: marketing possibilities and customers' loyalty. *Management Theory and Studies for Rural Business and Infrastructure Development*, 26(2), pp.193-200.
- Sadeghi, T. and Heidarzadeh Hanzaee, K., 2010. Customer satisfaction factors (CSFs) with online banking services in an Islamic country: IR Iran. *Journal of Islamic Marketing*, 1(3), pp.249-267.
- Santouridis, I., Trivellas, P. and Reklitis, P., 2009. Internet service quality and customer satisfaction: Examining internet banking in Greece. *Total Quality Management*, 20(2), pp.223-239.
- Seth, N., Deshmukh S. G. and Vrat P., 2005. Service quality models: a review. *International Journal of Quality & Reliability Management* 22 (9), pp. 913-49.
- Seyal, A.H. and Rahim, M.M., 2011. Customer satisfaction with internet banking in Brunei Darussalam: Evaluating the role of demographic factors. *e-Service Journal: A Journal of Electronic Services in the Public and Private Sectors*, 7(3), pp.47-68.
- Sikdar, P., Kumar, A. and Makkad, M., 2015. Online banking adoption: A factor validation and satisfaction causation study in the context of Indian banking customers. *International Journal of Bank Marketing*, 33(6), pp.760-785.
- Unyathanakorn, K. and Rompho, N., 2014. Factors Affecting Customer Satisfaction in Online Banking Service. *Journal of Marketing Development & Competitiveness*, 8(2).
- Vivi, V. and Novita, N., 2017. A Study of the Factors That Influence the Level of Consumer Satisfaction Towards the Use of Internet Banking. *Jurnal Terapan Manajemen dan Bisnis*, 3(2), pp.87-101.
- Willemsen, D., 2010. *The measurement of customer satisfaction: existing research, comparison of different methods and critical appraisal*. Norderstedt: GRIN Verlag. p. 46
- Yoon, C., 2010. Antecedents of customer satisfaction with online banking in China: The effects of experience. *Computers in Human Behavior*, 26(6), pp.1296-1304.
- Zavareh, F.B., Ariff, M.S.M., Jusoh, A., Zakuan, N., Bahari, A.Z. and Ashourian, M., 2012. E-service quality dimensions and their effects on e-customer satisfaction in internet banking services. *Procedia-social and behavioral sciences*, 40, pp.441-445.
- Zhu, Y.Q. and Chen, H.G., 2012. Service fairness and customer satisfaction in internet banking: Exploring the mediating effects of trust and customer value. *Internet Research*, 22(4), pp.482-498.