CUSTOMER'S LOYALTY OF INDONESIA CELLULAR OPERATORS: ROLES OF USER EXPERIENCE, SATISFACTION, SWITCHING BARRIERS, AND CORPORATE IMAGE

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UNIVERSITI SAINS MALAYSIA

2019

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by

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**Thesis submitted in fulfilment of the requirements
for the degree of
Doctor of Philosophy**

August 2019

ACKNOWLEDGEMENT

In the name of ALLAH SWT, most gracious, most merciful. All praise is to ALLAH SWT, the lord of the world who gave me the strength and courage to complete this thesis. May the peace and blessings of ALLAH SWT be upon our beloved Prophet Muhammad SAW, his household, companions, and those who follow him in the righteousness until the day of judgment.

The honour gratitude is rendered to my supervisor, Dr. Zurina Mohaidin for her encouragement in producing this thesis. It is honoured to be under her guidance. I am constantly amazed at her knowledge and her willingness to share her time and expertise. Dr. Zurina Mohaidin has assisted and supported me in every possible way throughout this journey. I owe her more than I can adequately express and offer her my warmest appreciation and deepest thanks.

My sincere thank you also dedicated to Prof. Dr. Rushami Zien Yusoff, Assoc. Prof. Dr. Salmi Mohd Isa, and Assoc. Prof. Dr. Ellisha Nasruddin as my examiners who provided me a lot of suggestions to revise my thesis, without their precious supports, it would not be possible to conduct this excellent research. I would also like to extend my appreciation to Professor Dr. Azlan Amran, Dean of Graduate School of Business (GSB), for the kind support. I am also thankful to the staff members in GSB who were helped me during my research.

I would like to acknowledge Telkom University, Telkom Foundation, Dr. Jafar Sembiring, and Dr. Dodie Tricahyono for giving me the opportunity to embark this journey and funding this research under the Ph.D Scholarship. My appreciation goes to everybody in Indonesia who helped me in making this research happen and who took part in this study.

TABLE OF CONTENTS

CHAPTER 2 - LITERATURE REVIEW

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

APJII	Asosisasi Penyelenggara Jasa Internet Indonesia
ARPU	Average Revenue Per User
ATSI	Asosiasi Penyelenggara Telekomunikasi Seluruh Indonesia
BTS	Base Transceiver Station
CB-SEM	Covariance-Based Structural Equation Modeling
CDMA	Code Division for Multiple Access
GSM	Global System for Mobile Communication
ICT	Information and Communication Technology
IDC	International Data Corporation
IPMA	Importance and Performance Matrix Analysis
IPTV	Internet Protocol Television
LTE	Long Term Evolution
MMA	Mobile Marketing Association
PLS	Partial Least Square
SEM	Structural Equation Modeling
SIM	Subscriber Identity Module
SMS	Short Message Service
UU	Undang-undang
VB-SEM	Variance-Based Structural Equation Modeling

LIST OF APPENDICES

xvii

KESETIAAN PELANGGAN TERHADAP PENGENDALI SELULAR INDONESIA: PERANAN PENGALAMAN PENGGUNA, KEPUASAN, HALANGAN BERALIH, DAN IMEJ KORPORAT

ABSTRAK

Industri Telekomunikasi di Indonesia telah berkembang dengan pesat sejak penerbitan peraturan kerajaan mengenai perubahan persaingan menjadi oligopoli. Peningkatan bilangan pelanggan yang stagnan seiring dengan peningkatan pelanggan untuk menghentikan langganan, mengurangkan pertumbuhan bilangan pelanggan, dan purata keuntungan per pengguna yang rendah menunjukkan penurunan kesetiaan. Kajian ini membina satu rangka penyelidikan bagi meramal potensi kesetiaan terhadap pengendali selular. Penyelidikan ini dibina berdasarkan kajian yang menyeluruh, melibatkan kajian pemerhatian, serta mengambil kira pendapat pakar daripada kalangan ahli akademik dan praktikal pengendali selular. Teori Tahapan Kognisi-kepada-Tindakan Kesetiaan menyokong rangka penyelidikan yang dibina. Kajian ini memberi tumpuan pengalaman pengguna yang meliputi lima dimensi iaitu fungsi, sosial, kewangan, amanah, dan tanggapan terhadap kualiti perkhidmatan sebagai pembolehubah tidak bersandar. Pembolehubah imej korporat dianggap sebagai pembolehubah sederhana, pembolehubah kepuasan dan halangan beralih dianggap sebagai pembolehubah pengantara, sedangkan pembolehubah kesetiaan ialah pembolehubah bersandar. Pendekatan kuantitatif melalui kajian soal selidik telah dilakukan untuk mengumpul data utama di tiga bahagian di Indonesia. Seramai 400 pengguna pengendali selular terlibat dalam kajian ini dikumpul melalui kajian selidik dalam talian internet. Rangka kerja penyelidikan diuji menggunakan

PLS-SEM. Penemuan dan keputusan kajian menunjukkan bahawa: Pertama, pengalaman pengguna secara langsung mempengaruhi kesetiaan terhadap pengendali selular. Kedua, imej korporat ternyata menguatkan kesan pengalaman pengguna terhadap halangan beralih dan kesan seterusnya terhadap kesetiaan, yang menunjukkan bahawa imej korporat yang baik dapat meningkatkan kesetiaan pelanggan. Ketiga, kepuasan dan halangan beralih menjadi penghubung diantara pengalaman pengguna dan kesetiaan. Ini bermakna jika pengguna melihat bahawa pengalamannya baik sewaktu menggunakan pengendali mereka, maka mereka akan merasa puas dan setia dengan pengendali semasa. Selaras dengan keadaan ini, apabila terdapat terlalu banyak halangan dalam beralih kepada pengendali lain, dan jika pengguna percaya mereka mendapat nilai wang darinya, mereka juga akan tetap setia. Secara hakiki, kajian ini telah mendapati bahawa ada hubungan diantara lima dimensi pengalaman pengguna terhadap kesetiaan pengendali selular, gabungan hubungan pengantaraan kepuasan dan halangan beralih terhadap kesetiaan, peranan sederhana imej korporat memberi kesan kepada kekuatan hubungan antara pengalaman pengguna dan halangan beralih. Rangka kerja penyelidikan konseptual yang dicadangkan dalam kajian ini boleh dibezakan antara pengguna yang melihat imej korporat yang tinggi dan pengguna yang melihat imej korporat yang rendah; mereka juga boleh dibezakan antara pengguna pra bayar dan pengguna pasca bayar dalam konteks pengendali selular.

CUSTOMER'S LOYALTY OF INDONESIA CELLULAR OPERATORS: ROLES OF USER EXPERIENCE, SATISFACTION, SWITCHING BARRIERS, AND CORPORATE IMAGE

ABSTRACT

The telecommunications industry in Indonesia has grown rapidly since the issuance of the government regulation regarding the change of competition became an oligopoly. The increasing number of subscribers is getting stagnant along with the increasing high churn rate, decreasing customer growth and low average revenue per user that indicates a decline in loyalty. The present study developed a conceptual research framework for potential predictors of loyalty to cellular operators. The research framework was developed in light of an extensive literature review and expert opinions from academicians and practitioners. Cognition-to-action loyalty phase framework supports the established framework. The present study takes into consideration the cellular operator's five dimensions of user experience, namely functionality, social, monetary, trustworthiness, and perceived service quality as independent variables. The variable of corporate image was considered as a moderating variable, the variables of satisfaction and switching barriers were considered as mediating variables, whereas the variable of loyalty was a dependent variable. A quantitative approach through a survey questionnaire was used to collect primary data in the three parts of Indonesia. Out of 400 cellular operator users surveyed in this study were collected through internet survey. The research framework was tested using PLS-SEM. The findings and results show that, First, user experience directly influences loyalty. Second, corporate image is revealed to

strengthen the effect of user experience on switching barriers and subsequent impact on loyalty, which indicates that a good corporate image can increase customer loyalty. Third, satisfaction and switching barriers mediate the relationship between user experience and loyalty. This implies that if users perceive a good experience with their operators, they will satisfied and loyal to the current operator. In line with this situation, if there are too many barriers to switch to other operators and they believe getting value for money, they will remain loyal. The contribution of this study lies in the fact that the path between the five dimensions of user experience to loyalty of cellular operator, the combination with the mediator of satisfaction and switching barriers to loyalty, the moderating role of corporate image which affects the direction of and strengthens the relationship between user experience and switching barriers. The conceptual research framework proposed in this study can be differentiated between users who perceived corporate image is high and those who perceived corporate image is low; they also can be differentiated between pre-paid and post-paid users in the context of cellular operators.

Chapter 1

Introduction

1.1 Introduction

The phenomenon of industrial development in Indonesia has grown rapidly and has led to competition among companies aimed at gaining a bigger market share and profits by penetrating markets to attract new customers and developing the ability to maintain customer loyalty. Building customer loyalty is one of the most important tasks for telecom companies operating in a market that is gradually becoming saturated (Hwang & Kim, 2018). In addition, competition leads to customers becoming more critical in terms of the products and services they use, thereby further encouraging companies to retain their existing customers (Hermawati, 2013).

Practitioners and academicians believe that loyalty is the most important factor in maintaining the existence of a company. The ability to retain existing users and strengthen loyalty appears to be critical in gaining competitive advantage (Gerpott, Rams, & Schindler, 2001; Lopez-Miguens & Vazquez, 2017). In recent years, academic research has supported factors that are able to increase and maintain loyalty. Oliver (1999) described that if a company can satisfy the needs of its customers better than its competitors, it will be easier for that company to create customer loyalty.

The positive affect of customer satisfaction on customer loyalty have been demonstrated by several previous studies, which means the higher the satisfaction, the higher the loyalty (Adeleke & Aminu, 2012; Ayodele & Esiti, 2016; Deng, Lu, Kwok, & Zhang, 2010; Fornell, 1992; Kim, Siew, Younghoon, & Park, 2016).

Kotler & Keller (2012, 2016) stated that satisfaction refers to the summary psychological state that occurs when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience; hence, the customer experience has a positive effect on satisfaction and loyalty. Since they pertain to the time and psychological effort involved in facing the uncertainty of dealing with a new service provider, switching costs can be a barrier to changing service providers and can thus also be a mechanism for improving customer loyalty (Dick & Basu, 1994). It is believed that the customer experience and corporate image can increase loyalty. As such, if a customer has a good experience and image of a provider, they will be encouraged to continue using that provider (Andreassen & Lindestad, 1998; Boohene & Agyapong, 2011; Fishbein & Ajzen, 1975).

Lau and Lee (1999) stated that customers will take into account the opinions of others with regard to the image of a good; as such, the positive opinions of other customers will make them feel more secure when using the products or services of the company in question. Although they may not acquire sufficient information from the company directly, the process of information gathering can start from advertising in such a way that it will affect the process of image formation of the company (Aydin, Ozer, & Arasil, 2005).

Companies generally attempt to establish a transitional barrier by making customers feel reluctant or that they are losing something if they decide to switch to other products. Furthermore, the relationship between perceived justice and recovery satisfaction in the distributive and interactional justice dimensions was moderated by corporate image (Nikbin, Ismail, Marimuthu, & Jalalkamali, 2010).

Nowadays, Information and Communications Technology (ICT) is a tool that cannot be separated from public life and has become one of the essential elements to support daily activities, such as the ability to communicate without the limitations of distance and time, being able to obtain the latest information and working to support business activities (Rayana, 2015). Therefore, data service and Internet access are widely chosen for use by customers. In the era of globalisation, advances in ICT have changed the way people look at both the environment around them and the wider world; it raises the intensity of competition through the use of more advanced ICT (Rachmawati & Mohaidin, 2017; Sitinjak, 2005).

Since the Indonesian Government has changed the pattern of management in the telecommunications sector from a monopoly to oligopolistic competition through law or undang-undang (UU) No. 36 of 1999 on Telecommunications, the Indonesian telecommunications industry has experienced rapid growth (Kemkominfo, 1999). Additionally, this growth has been accelerated by advances in communication technology using the radio frequency spectrum as an alternative means of telecommunications, which had previously relied only on cable and satellite networks (Sugesti, 2012).

Cellular operators are among the fastest-growing companies in Indonesia telecommunications sector (Rayana, 2018). This points to a growing demand for telecommunications technology in terms of both quality and quantity, which is leading to competition in the telecommunications industry becoming more stringent (Mahe, 2007). This condition is also giving rise to a price war between cellular operators that offer the same communication products and services, such as Internet access, data service, Short Message Service (SMS), and voice calls (Hasan & Afifah, 2007).

1.2 Background of the Study

Competition in the mobile business is growing rapidly in Indonesia, and the impact is an increasing interest in and demand for mobile phones. This demand is not only for Subscriber Identity Module (SIM) cards but also for data service and internet access, which continues to increase significantly. This competitive state of the market helps to ensure customers have a variety of options and alternatives when seeking to purchase their desired products or services (Kotler & Keller, 2012, 2016).

Each telecommunications company is therefore presented with an opportunity to maximise their competitive advantage in terms of providing excellent service to both new and existing customers in order to enhance their customers' loyalty and make as much profit as possible (Kotler & Armstrong, 2016).

According to the Media Works and Mobile Marketing Association (MMA) (as cited in Nurfarhana, 2012), among the Asia Pacific countries, Indonesia is one of the countries with remarkably high growth in mobile cellular usage, with a trend of up to 93.16% since 2000. This trend is in line with a prediction from market research agency International Data Corporation (IDC), which stated that from 2016, China, India, and Indonesia would lead the growth of mobile cellular within a period of five years (Nurfarhana, 2012). This condition is still ongoing until 2018, Indonesia is in the rank of 3rd with the most cellular users in Asia Pacific and in the rank of 6th with the most cellular users in the world (Galih, 2018).

Compared to the development of fixed-wire telephones, which after decades have stagnated at around 9.4 million landlines, over a period of less than 20 years the teledensity of telecommunications in Indonesia has increased significantly, reaching more than 310 million telephone connections, dominated by fixed wireless connections but mainly by mobile phone connections (Rizal, 2015).

Cellular business continues to grow through new innovations and adaptations to changing market demands and customer preferences. Although the growth of voice calls and SMS has begun to slacken over the last few years, at the same time there has been stronger growth in data communication services and mobile Internet access (Utoyo, 2015).

1.2.1 Overview of Mobile Phone Users in Indonesia

The number of mobile phone users in Indonesia has grown remarkably since 2013, and marketers predict that the rapid increase will continue until 2018 (Statista, 2016). The growth of utilisation patterns of mobile phone users in Indonesia can be seen in Figure 1.1.

The statistic in Figure 1.1 shows the total number of Indonesian mobile phone users between the year of 2013 and 2018, with a subscriber growth rate of 56%. The data taken every fourth quarter of the year (namely December 2013, December 2014, December 2015, December 2016, December 2017, December 2018). In 2018, Indonesian mobile phone users number was forecasted to increase to around 184 million users, with a subscriber growth rate of 6.17 % over that of 2017. As the fourth most populous country in the world, Indonesia is a large and fast-growing market for mobile technologies. According to forecasts, mobile phone ownerships in Indonesia will double from 10% to 56% between 2013 and 2017 (Statista, 2018). It can be said that the mobile phone has now become a necessity that cannot be separated from the lives of Indonesian people.
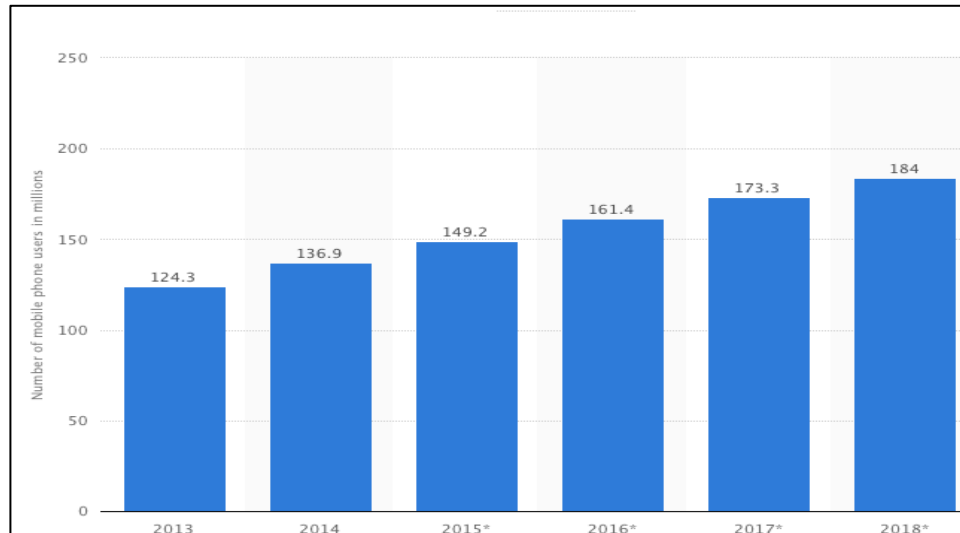
Figure 1.1: Mobile Phone Users in Indonesia 2013-2018

Souce: Number of mobile phone users in Indonesia from 2013 to 2018

(Statista, 2018)

The growth of utilisation patterns of mobile phones based on the age and gender of users can be seen in Figure 1. 2. Asosisasi Penyelenggara Jasa Internet Indonesia (APJII) conducted the survey towards 143,26 million users and the result showed that almost half of the total mobile phone users in Indonesia were people in the age group of 19-34 (49.52%). While the second largest number of users was 35-54 years old (29.55%), the third was 13-18 years old (16.68%), and the last are users over 54 years old (4.24%) (APJII, 2018). Furthermore, there are 69,67 million male users (52.5%) and 63,03 million female users (47.5%). Hence, it can be deduced the differences between male and female users were not significant.

Indonesian Mobile Phone Users 2018

	13-18	19-34	35-54	>54	Male	Female
▪ Indonesian Mobile Users 2018 (%)	16,68	49,52	29,55	4,24	52,5	47,5
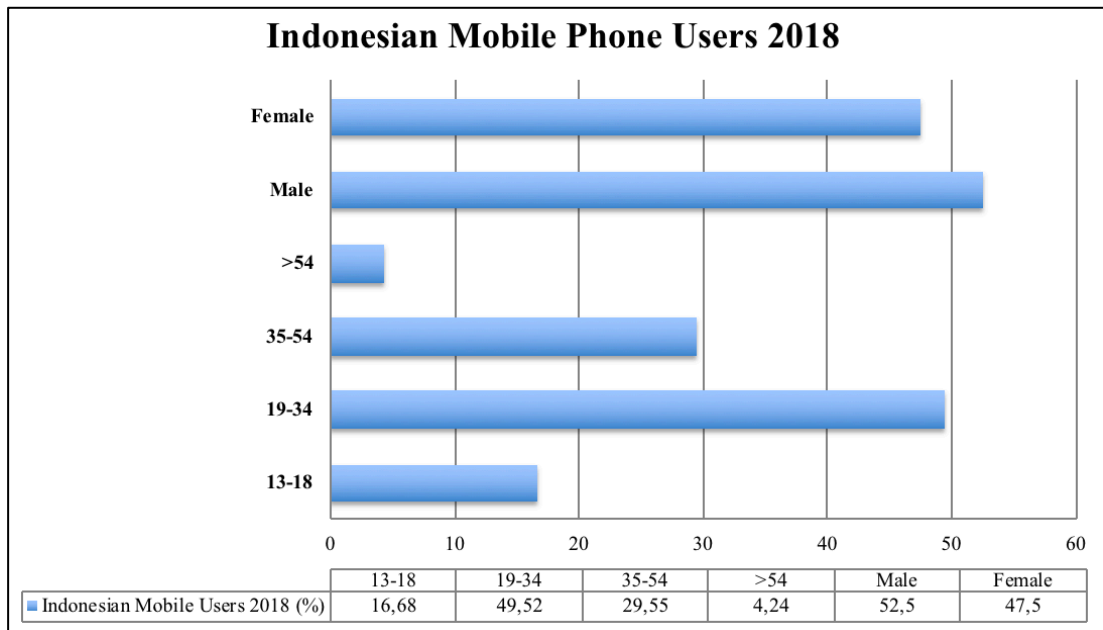
Figure 1.2: Indonesian Mobile Phone Users 2018
Source: Pengguna dan Perilaku Internet Indonesia (APJII, 2018)

Rizal (2015) reported that Ericsson Consumer Lab conducted a survey with 2,053 respondents from nine provinces in Indonesia (namely North Sumatera, Riau Island, Daerah Khusus Ibukota (DKI) Jakarta, Banten, West Java, Central Java, East Java, East Kalimantan, and South Sulawesi), the result of which indicated that 53% of the respondents chose to use more than one SIM card (namely multiple SIM cards) due to the cheaper price. Other triggers were their eagerness to take advantage of the voice call price from the same operator, interest in promotions (namely especially for starter pack promotion) and the cheaper price of data service-internet access.

In accordance with Kotler and Keller (2016), individual characteristics are divided into demographic, geographic, and psychographic. Manurung (2009) obtained the Indonesian individual characteristics of mobile phone use, and these are given as follows: First, Demographic - there is no age border among mobile phone users because cellular operators offer two types of SIM card (namely post-paid and pre-paid cards).

7

Users in the age range 10–25 years mostly use pre-paid card as it is cheaper than the post-paid version, they do not have a regular budget for communication purposes, they are unstable and easy to offer cheaper promo packages, they are easily bored and like change cards, they only use the SIM card for data packages so that if the data package runs out immediately discard and buy the new card. While, users over the age of 25 years tend to mostly use post-paid card since they already have detailed and routine post expenses for monthly communication needs, they are not easily affected by other low-cost package promotions because what they get in the postpaid package is enough , they have high prestige because postpaid numbers are unique and exclusive, they are happy to be given priority services.

Nevertheless, this condition can also be reversed because most users in the age range are 10-25 years still in the school level and do not have income yet so that it is still paid by the parents and this condition is facilitated by the operator in the family post-paid package program. Contrary, some users in the age above 25 years who are concerned with promo packages, tend to choose pre-paid card.

Additionally, there is no gender barrier between men and women since they all use a mobile phone as part of their daily activities; Second, Geographic - there is no geographic or regional border and there is no distinction by ethnicity, religion or race in Indonesia since most Indonesian people nowadays use a mobile phone; Third, Psychographic - users tend to switch to other providers if it requires less effort than remaining loyal. Customers tend to seek variety and they are swayed by the substitute provider existence, the effect of social group or community, and the recommendations of peers (Hasan and Afifah, 2007).

1.2.2 Overview of Telecommunications Providers in Indonesia

The scope of the telecommunications provider is to provide services to meet the needs of telecommunications users by using networks. As stated by kemkominfo (1999), Telecommunications services in Indonesia are split into cellular operators, internet service providers, and network providers. Cellular operator is the telephone company that provides mobile network and communication service to the users; starting from giving the SIM Card to get the access towards the service (voice call, SMS, data service and internet access). The cellular operators are separated according to technology, namely Global System for Mobile Communication (GSM) and Code Division for Multiple Access (CDMA).

Astutik and Sulihyantoro (2016) pointed to the fact that there are several telecommunications providers, as follows: GSM-Based Cellular Operators, CDMA-Based Cellular Operators, Internet Service Provider, and Network Provider. There are four cellular operators based on GSM, for instances: First, PT.Telkomsel that provides post-paid card (namely Kartu Halo) and pre-paid card (namely Kartu Simpati and Kartu As); Second, PT. Indosat Ooredoo that provides post-paid card (namely Matrix) and pre-paid (namely Mentari and IM3); Third, PT. XL Axiata that provides post-paid card (namely XL Pasca bayar) and pre-paid card (namely XL Pra bayar); Fourth, PT. Hutchison 3 Indonesia that provides post-paid card (namely 3 or Three Pasca bayar) and pre-paid card (namely 3 or Three Pra bayar).

As stated by Astutik and Sulihyantoro (2016), CDMA-Based Cellular Operators including Smartfren Telecom, Flexi Telkom, Esia, Axis, and Star One. Meanwhile, Flexi Telkom and Esia has been migrated to Kartu As in 2015 that managed by Telkomsel, Axis has been acquired by XL Axiata in 2015, and Star One has been acquired by Indosat Ooredoo in 2015.

There are several internet service providers, such as: Bolt, MNC play, Indihome, Biznet, CBN, My Republic, First Media, Smartfren (managed by Smartfren Telecom), Flash (managed by PT. Telkomsel), IM2 (managed by PT. Indosat Ooredoo), XLGo (managed by PT. XL Axiata). Furthermore, network providers including: First, PT. Telkom Indonesia, Tbk that provides Telkom Indonesia Fixed-phone, BTS (Base Transceiver Station), Sub-marine cable system, and Triple play – Indihome (namely Telephony, Internet, IPTV); Second, PT. Indosat Ooredoo that provides BTS (Base Transceiver Station), Sub-marine cable system, Cellular operator, and Internet service (namely Matrix, Mentari, IM3, IM2).

1.2.3 Overview of Cellular Operators in Indonesia

Arofianto and Krisnadi (2015) outlined how cellular operators in the telecommunications industry need to be concerned with a number of business indicators. These include, among others, market share, number of customers/subscribers, customer growth, churn rate, and average revenue per user (ARPU).

Cellular operators have contributed to the non-tax state budget in Indonesia over the last decades by an amount approximately equal to Rp. 280T. According to data on cellular operators' market share for Q1 of 2015, there were many more users of GSM-based technology than of CDMA-based technology, with market shares of 92% for GSM and 8% for CDMA (Utoyo, 2015). The market share for GSM-cellular operators was dominated by Telkomsel (gained 48%), Indosat Ooredoo (gained 23%), XL Axiata (gained 18%) and Hutchison 3 (gained 11%).

Table 1.1 shows the market growth among the cellular operators in Indonesia for the period 2012–2017. It can be seen that Telkomsel, Indosat Ooredoo, and Hutchison 3 have grown their customer numbers since 2012, but the rate of growth has decreased and is now becoming stagnant, thus indicating issues with customer loyalty and customer churn. Moreover, both XL Axiata's customer numbers and growth have tended to fluctuate from 2012-2015 and stagnant from 2016-2017.

Asosiasi Penyelenggara Telekomunikasi Seluruh Indonesia (ATSI) stated that nowadays the rate of customer churn for cellular operators has reached 20%, which can be assumed to be a high rate of churn (Muchlis, 2017). This serves to indicate that cellular operators need to know the position of their competitors and the estimations of the market share among the companies both today and into the future in order to maintain customer loyalty based on satisfaction and experience (Pramono & Rusdiansyah, 2008). The high churn rate indicates that users are not satisfied with the cellular operator they chose (Pertiwi & Widiyanto, 2015).

Table 1.1

Market Growths in Cellular Operators

Customer (milliion) Growth (%)	2012	2013	2014	2015	2016	2017
Telkomsel	125	132	141	152	157.4	160,9
Growth (%)	16.94	5.6	6.82	7.80	3.55	2.22
Indosat Ooredoo	58,45	59,60	63	69	80.5	81,6
Growth (%)	13.06	1.97	5.70	9.52	16.66	1.36
XL Axiata	45,80	60,50	59,60	42,04	46	47
Growth (%)	-1.29	32.10	-1.49	-29.5	9.41	2.17
Hutchison 3	26	38	50,16	55,4	55,5	56,5
Growth (%)	40.1	46.15	32	10.45	0.18	1.8

Source: Interkoneksi operator yang sulit konek (Pamungkas, 2017)

Average Revenue Per User (ARPU) is the measurement used primarily by customer communications and networking companies and is defined as the total revenue divided by the number of subscribers (Arofianto & Krisnadi, 2015). For a cellular operator, ARPU includes not only the revenues billed to the customer each month per usage, but also the revenue generated from incoming calls which are payable within the regulatory interconnection regime (Rouse, 2007).

A phenomenon seen among Indonesia cellular operators is increasing customer numbers at the same time as decreasing ARPU. This reflects the tight competition among mobile carriers and the fact that customers have freedom of choice among a number of different operators due to low switching barriers (IndoTelko, 2015a). Another reason is the effect of market expansion (namely in the stage of market penetration, a provider can reach first-priority customers who have a high intention to use the service and are willing to pay a premium price).

In contrast, there will also be different characteristics in the stage of market expansion, in which the aim is to capture non-first-priority users who do not have a high intention to use the service and wish to pay a lower price. On the other hand, ARPU may be increased by prioritising the corporate image from the users' perspective (Arofianto & Krisnadi, 2015).

Recently, efforts to increase ARPU have been conducted by migrating the network generation from 2G to 3G and then to 4G-LTE (Long-Term Evolution) at a frequency of 1.800Mhz. Nevertheless, any increases in ARPU have yet to be significant, and it is necessary to wait for the next four to five years (IndoTelko, 2015a). In addition, Indonesia's ARPU in Q1 of 2017 was around Rp. 32.000 monthly (Annual report, 2017a,b,c; Rouzni, 2017; Tribunbisnis, 2018), although there were variations; for instance, Telkomsel (Rp. 45.000), Indosat Ooredoo (Rp. 25.000), XL

Axiata (Rp. 35.000), and Hutchison 3 (Rp. 24.000). ARPU can be increased as customers recharge their quota for data service, but this is not easily done as it also entails a greater cost to the company in terms of operating a base transceiver station (BTS) (Oodan, Ward, Savolane, Daneshmand, & Hoath, 2009).

In the mobile telecommunications industry, there are five basic parameters that serve as references. These are coverage, network quality, service quality, value-added services, and price (Nurfarhana, 2012; Oodan et al., 2009). Cellular operators need to pay attention to the bandwidth used by customers since the greater the bandwidth, the better the quality of the network.

The elements contained in Telecommunications industry are divided into the following four elements, namely: **First**, **Network** (Broadband Network Generation, such as: 4G LTE, 3GS, 3G, 2G, Edge); **Second**, **Services** (for example: Data Package, SMS, Telephony/Voice call); **Third**, **Applications** (for instance: Instant messaging including Whats' app messenger, Telegram, Blackberry messenger, Line, etc; Productivity including Qur'an, Bible, Adobe acrobat, Faster scan, Microsoft office, Mobile banking, Online shopping, Camera, etc; Content including Maps, Social media, Web browser, Internet search engine, etc); **Fourth**, **Devices** including iPad/Tablet, Mobile phone, Laptop, etc). As stated by Kemkominfo (1999), Cellular operators fall into the category of network and services.

1.3 Problem Statement

Over a period of decades, the telecommunications industry in Indonesia has been growing and changing very rapidly, as seen by the increasing numbers of both cellular operators and users. The development of telecommunications technology has had an enormous influence on the telecommunications service companies in Indonesia. One such advance in telecommunications technology has been the development of cellular or mobile telecommunications. Mobility and the increasing needs of users to communicate anywhere and at any time have served to boost the emergence of cellular-based technology (Diaz, 2017; Rayana, 2018).

The telecommunications industry is one of various industries in Indonesia that has come to be characterised by increasingly tight competition, and it is undeniable that telecommunications has a high impact in terms of supporting the activities of users in performing their daily activities. This phenomenon began with the change of government regulations regarding competition in the telecommunications industry that have involved businesses in numerous different but related fields, namely the operators of BTS, Internet service providers and cellular operators (Hidranto, 2017; Rizal, 2015).

The penetration of cellular services in Indonesia has exceeded the size of the Indonesian population itself. The penetration rate has reached up to 120%, meaning there are many customers using more than one mobile number (namely multiple SIM cards), which may either be from the same operator or from different mobile operators due to the lower prices (IndoTelko, 2015a; Husain, 2018). The phenomenon of customers using more than one cellular operator number cannot be separated from the telecommunications technology development and the smartphone industry growth, in addition to the changes in lifestyle and behaviour of customers in relation to using mobile phones and cellular operator services (Manurung, 2009; Husain, 2018).

Additionally, the increasing number of cellular operators has led to very intense competition among them in order to attract users to their products and services (Kurniawan, 2007). A number of factors need to be considered by cellular operators in Indonesia, as already described in section 1.2.3. These include the fact that the increasing number of users does not necessarily correspond to an increase in user growth and ARPU; the high churn rate due to users leaving one operator and switching to competitors; and the fact that many subscribers become inactive users.

Based on these phenomena, it is important for cellular operators to investigate the loyalty level beginning with those users who have a good experience, which can lead to satisfaction and loyalty, also noting that loyalty is influenced by high switching barriers and good corporate image (Kotler & Keller, 2012, 2016).

The number of cellular users in Indonesia has continued to increase but there has also been a corresponding downward trend in customer loyalty due to the similarity of products and services offered by each cellular operator. This has led to a price war and encouraged greater levels of customer switching between different operators (namely customer churn; split customer, and switch customer). Telecommunications customers that also known as users, will use more than one SIM card from the same or different operator if they are not satisfied with the one they are using and they find the barriers to switch are low. Market conditions are getting tougher, thereby creating a bad impact for the cellular operator due to the stagnant number of loyal customers.

Declining loyalty among customers may also have other negative impacts on the company, such as decreased market share, increasing costs, and the company suffering losses (Hermawati, 2013). This type of impact has been seen in several market niches and market follower companies that have been acquired by both market leader and market challenger companies. For example, Flexi was acquired by

Telkomsel, Starone was acquired by Indosat Ooredoo, and Axis was acquired by XL Axiata (IndoTelko, 2015a).

In facing the competition between Indonesia cellular operators, in a market with more mobile cellular users but also declining customer growth and ARPU, a company can obtain competitive advantage and retain customer loyalty by observing the users' experience and satisfaction for the products/services provided by their current cellular operator and then enhancing their own positive corporate image in the minds of customers, to gain a higher level of loyalty. The user experience is critical in service businesses as it constitutes not only a means by which to create satisfaction, it can also become a source of competitive advantage and affect a customer's barriers to switching, which consequently has the effect of increasing customer loyalty (Fitzsimmons & Fitzsimmons, 2011).

The occurrence of users dissatisfaction because they felt a discrepancy between the performance and importance of the product or service, thus encouraging them to respond through attitudes, both positive and negative attitudes towards the operators. This is indicated by the increase in churn rate in line with the decrease in customer growth which can be seen in Table 1.1. (Hidayah & Sumiryasih, 2018).

This is in accordance with the characteristics of Indonesian cellular users, who comprise users from all age groups (users at the age of 10–25 years mostly using pre-paid cards, with those aged over 25 years mostly using post-paid cards, although the reverse can also apply). Users prefer to become accepted in their social groups, their like/dislike responses emerging only after they have acquired some evidence and experience of usage, and they also tend to be price sensitive. Users are also more loyal when the barriers to switching to another provider are more difficult than remaining as a loyal customer with their current operator (Manurung, 2009; Rizal, 2015).

The low switching barriers can be seen from the frequent use of users changing cellular numbers or dividing usage with several different operators which will result in a low ARPU as seen in section 1.2.3. Besides that, it is also cause the cellular numbers to be charred. Even though cellular operators have tried to reach the market and reap profits from their customers. Starts by offering economical rates between fellow users, discounting at certain hours of usage until bonus credit and SMS, Ring Back Tones (RBT) for free, community systems with various interesting programs and even cheap internet access (Rayana, 2018). In addition, the obstacles created by these cellular operators are in the hope that customers will be loyal and will not think of moving to another operator (Hartatik & Othman, 2010).

This study following to the context of descriptive theory building, then the intended investigated questions was on whether the loyalty of Indonesia cellular operators users were triggered by how they evaluate loyalty cognitively, then followed by affective evaluation before the process was continued to the conative and action phase of loyalty.

Previous authors considered other factors that influence customer loyalty for telecommunications providers. These are based on user experience and belief, among others are: feature function, signal function, trust, price/monetary, peers/social, and service quality in complaint handling. It is also known that a company can build loyalty by satisfying the needs of users consistently over time (Cerejo, 2012; Oodan et al., 2009).

Customers' satisfaction can be built based on the user experience they gained from the provider regarding the product; as such, it is affirmed that satisfaction is able to mediate the relationship between experience and loyalty (Astutik & Sulihyantoro,

2016; Boohene & Agyapong, 2011; Deng et al., 2010; Setyaningsih, 2014; Sugesti, 2012).

Customer loyalty is expected to arise when the quality of services provided by the cellular operator is good, because the customer not only considers the product to be good in terms of the monetary factor, but also that the product is superior as reflected in the good functionality offered in its features and strong signal, based on their experience. The other important thing that cellular operators must maintain is the quality of the service they provide to customers. In the cellular telecommunications service industry, customers are retained not only by maintaining the quality of service, but also by creating high barriers to switching that result in customers feeling reluctant to switch to other providers. To this end, switching barriers are considered as a mediator between experience and loyalty (Sugesti, 2012).

In accordance with Aydin et al. (2005), loyal customers have a lower tendency to switch providers. A company's technological changes and differentiation strategy can give rise to switching barriers and become an important factor for loyalty. A loyal customer will reduce their search for new providers, increase their response to switching barriers, and provide positive feedback to the company along with the high level of corporate image. As stated by Lukiarti (2014), the relationship between user experience and loyalty is moderated by corporate image. It implies that when users have a good image of the current service provider, this can strengthen their feelings of satisfaction and reluctance to switch, thereby leading them to become loyal to the provider.

Rayana (2018) affirmed that user experience of functionality can be assessed from a network of inadequate coverage, difficulties in the registration process, a not well-integrated function thereby causing delays in several activities. Elpita (2018)

explained that humans as social beings need to communicate to others, so that the influence of peers or community is very high in their lives. One of the problems of user experience in social is the influence of community to use the same operator so that they can be accepted into the community and improve their social status. Various types of providers are intensifying price differentiation and saving rates among fellow users, bonus internet usage at certain hours of credit bonus and also free call bonuses. But at this time the customer has begun to be critical in choosing the product to be used in accordance with the needs and facilities offered, customers will choose from several of these products. this causes the appearance of user perceptions of monetary (Elpita, 2018).

Surjandari and Hamdani (2009) strengthened that trustworthiness is very important in the experience of mobile operators, this can be assessed from their responses based on their experience, such as they believe their operators care about customers, always improve the quality of products and services, their operators are honest and transparent in terms of information. Perceived service quality can be seen from the time to resolve complaints too long, the number of steps to resolve the problem, and the lack of employees to follow up on problem solving. based on a survey conducted by Convergys, it was found that 48% of customers surveyed had experienced poor service to their operators (KompasTekno, 2012).

Based on research conducted by the Frontier Marketing & Research Consultant, Telkomsel was chosen as the most trusted company. This proved that the company which built well corporate image was able to gain the highest market share. moreover companies that had a good image in the customers' mind, were relatively more acceptable to consumer (Movanita, 2019).

Therefore, the purpose of this study is divided into three sections. Firstly, the study intends to examine the effect of user experience on loyalty. Secondly, the mediation effect of satisfaction and switching barriers on the relationship between user experience and loyalty. Thirdly, the moderation effect of corporate image on the relationship among user experience, satisfaction, switching barriers, and loyalty.

This study examines whether loyalty of Indonesia cellular operators is related to variables such as user experience (functionality, social, monetary, trustworthiness, perceived service quality) and corporate image, along with the influences of satisfaction and switching barriers, by providing empirical evidence of the relationship among these variables. The variable of loyalty is reflected by the indicators of loyalty to intention, loyalty to action, and willingness to recommend to others. This is to fill the research gap generated by the fact that many previous studies have only studied up to the intention phase and/or have jumped to the action phase without looking at the intention phase, with only a few researchers having measured loyalty based on intention and action in one variable. Furthermore, this study aims to ensure that certain groups of four cellular operators were adequately represented in research because sampling that is done for the purpose of the limited generalization towards the sample used in this study.

1.4 Research Questions

Pursuant to the problem statement, eight research questions were formulated, as follows:

1. Does user experience (functionality, social, monetary, trustworthiness, perceived service quality) affect on loyalty of Indonesia cellular operators?

2. Does user experience (functionality, social, monetary, trustworthiness, perceived service quality) affect on satisfaction of Indonesia cellular operators?

3. Does satisfaction affect on loyalty of Indonesia cellular operators?

4. Does user experience (functionality, social, monetary, trustworthiness, perceived service quality) affect on switching barriers of Indonesia cellular operators?

5. Do switching barriers affect on loyalty of Indonesia cellular operators?

6. Does corporate image moderate on the relationship among user experience (functionality, social, monetary, trustworthiness, perceived service quality), satisfaction, switching barriers, and loyalty of Indonesia cellular operators?

7. Does satisfaction mediate on the relationship between user experience (functionality, social, monetary, trustworthiness, perceived service quality) and loyalty of Indonesia cellular operators?

8. Do switching barriers mediate on the relationship between user experience (functionality, social, monetary, trustworthiness, perceived service quality) and loyalty of Indonesia cellular operators?

1.5 Research Objectives

The primary objective of this research is to examine the affect of user experience on loyalty with the mediating role of satisfaction and switching barriers along with the moderating role of corporate image. Hence, the objectives of this research are stated below:

1. To examine the affect of user experience (functionality, social, monetary, trustworthiness, perceived service quality) on loyalty of Indonesia cellular operators.

2. To examine the affect of user experience (functionality, social, monetary, trustworthiness, perceived service quality) on satisfaction of Indonesia cellular operators.

3. To examine the affect of satisfaction on loyalty of Indonesia cellular operators.

4. To examine the affect of user experience (functionality, social, monetary, trustworthiness, perceived service quality) on switching barriers of Indonesia cellular operators.

5. To examine the affect of switching barriers on loyalty of Indonesia cellular operators.

6. To examine the moderating affect of corporate image on the relationship among user experience (functionality, social, monetary, trustworthiness, perceived service quality), satisfaction, switching barriers, and loyalty of Indonesia cellular operators.

7. To examine the mediating affect of satisfaction on the relationship between user experience (functionality, social, monetary, trustworthiness, perceived service quality) and loyalty of Indonesia cellular operators.

8. To examine the mediating affect of switching barriers on the relationship between user experience (functionality, social, monetary, trustworthiness, perceived service quality) and loyalty of Indonesia cellular operators.

1.6 Significance of the Study

This study contributes to the theoretical and managerial in Indonesia cellular operators. The conceptualisation of the theoretical framework discussed in chapter two not only looks at the impact of the user experience of products and services towards loyalty, but also investigates the role of satisfaction and switching barriers as mediators, along with the moderating role of corporate image of cellular operators in Indonesia.

1.6.1 Theoretical Contributions

The cognition-to-action loyalty phase framework (Oliver, 1997, 1999) describes consumer behaviour starting from the cognitive phase (namely loyalty to information), affective phase (namely loyalty to a liking), conative phase (namely loyalty to an intention), and action phase (namely loyalty to action inertia).

This study makes several original contributions to the knowledge on the cognition-to-action loyalty phase framework. These include how the user experience and corporate image are considered in the cognitive phase. The user experience dimensions based on a taxonomy derived from several prior research studies consist of functionality, social, monetary, trustworthiness, and perceived service quality. Meanwhile, satisfaction and switching barriers are chosen in the affective phase. Furthermore, loyalty is considered in the conative and action phases that reflects users' intention and action to be loyal and to subsequently make a recommendation to others.

This study provides a conceptual model in the context of Indonesia cellular operators based on the viewpoint of network and service. This cognition-to-action loyalty phase framework is the underlying theory in this study, but the theoretical framework will be modified by the mediating effect of satisfaction and switching

barriers on the relationship between user experience and loyalty, subsequently modified by the moderating effect of corporate image. Corporate image is chosen to moderate the relationship among the cognitive phase, affective phase, conative phase, and action phase.

The contribution for academicians interested in the same research topic is the conceptual model. Previous studies using the ICT industry as their object have used the same framework as this study, starting from the phase of cognitive, afterwards affective, subsequently conative, and finally action (Calvo-Porral & Levy-Mangin, 2015; Chang & Chen, 2008, 2009; Deng et al., 2010; Kim et al., 2016; Lopez-Miguens & Vazquez, 2017).

There are several differences between this study and previous ones, which are explained as follows. The first difference is that the cognitive phase variable in this study is the user experience (namely the dimensions of user experience are functionality, social, monetary, trustworthiness and perceived service quality), while Chang and Chen (2008, 2009) chose to use customer interface quality. Deng et al. (2010), in contrast, chose trust, service quality, and perceived value. Calvo-Porral and Levy-Mangin (2015) used perceived service value, corporate image, and switching costs. Kim et al. (2016) chose device features and corporate factors, while Lopez-Miguens and Vazquez (2017) chose website quality.

The second difference is the variables used for the affective phase as mediators, which in this study are satisfaction and switching barriers, while Chang and Chen (2008, 2009); Calvo-Porral and Levy-Mangin (2015); Deng et al. (2010) chose satisfaction and switching costs rather than switching barriers. On the other hand, Kim et al. (2016) chose customer satisfaction and switching barriers. Lopez-Miguens and Vazquez (2017) chose e-satisfaction, e-trust, and switching barriers.

24