YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF APPLIED ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAMME

A STUDY ON FACTORS AFFECTING THE USER'S CHOICE ON MOBILE PHONE SERVICE PROVIDER IN YANGON (CASE STUDY: THAKATA TOWNSHIP)

CHO CHO WIN
EMPA - 7 (18th BATCH)

OCTOBER, 2022

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A STUDY ON FACTORS AFFECTING THE USER'S CHOICE ON MOBILE PHONE SERVICE PROVIDER IN YANGON (CASE STUDY: THAKATA TOWNSHIP)

A thesis submitted as a partial fulfillment towards the requirement for the degree of Master of Public Administration (MPA)

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October, 2022

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This is to certify that this thesis entitled, "**A Study on Factors Affecting the User's Choice on Mobile Phone Service Provider in Yangon (Case Study: Thakata Township"** submitted as the requirements for the Degree of Master of Public Administration has been accepted by the Board of Examiners.

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ABSTRACT

Telecommunications service companies were trying to establish a large base of customers by providing different types of services to their users. Myanmar was the world's latest telecommunications market according to analysts' figures and has seen a dramatic increase in the number of people who use cellular devices over the past few years. The objective of this study was to determine the factors affecting the user's choice on the telecommunications service provider in Thakata Township. In this study, the descriptive method was used based on primary and secondary data. The total sample size was 200. The finding of the study was that MPT was used as their main telecommunications service provider and ATOM was used as their second telecommunications service provider. Service quality, price, network quality, and social lifestyle were the fundamental reasons considered in the user's choice on the main telecommunications service provider at Thakata Township, Yangon Region. The recommendation for this study was that MPT had several advantages for the user, including being highly portable, user-friendly, reasonably priced, offering good customer care service, and having a positive brand image.

ACKNOWLEDGEMENTS

Firstly, I would like to express my sincere gratitude to Professor Dr. Tin Tin Htwe, Rector of the Yangon University of Economics, for allowing me to undertake this study as a partial fulfillment towards the Master Degree of Public Administration. I would also like to express my appreciation and thanks to Professor Dr. Kyaw Min Htun Pro-Rector (Retired) of the Yangon University of Economics. I would like to acknowledge my indebtedness to Professor Dr. Khin Thida Nyein, Pro-Rector and Professor Dr. Tin Tin Wai, Pro-Rector of Yangon University of Economics.

Secondly, my sincere thanks to Professor Dr. Su Su Myat, Head of Department, Department of Applied Economics, Yangon University of Economics and Programme Director of MPA Programme, for her extensive and constructive suggestions, her supporting excellence lectures and comments to complete this thesis.

I am heartily grateful to my supervisor, U Thein Naing, Associate Professor (Retired), Department of Applied Economics, Yangon University of Economics for her guidance, supervision, advice, and encouragement in preparing to complete this study successfully.

I would like to express my sincere gratitude to all the teachers, and visiting lecturers who have made their grateful efforts in rendering knowledge sharing of MPA Program during these two years. In addition, I would like to extend my appreciation to the faculty and all the staff in the Department of Applied Economics who have provided me with any administrative support and strength during my academic years.

Finally, my sincere appreciation goes to my colleagues for their sincere support. Their willingness to participate and effective cooperation make me accomplish this study successfully.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

1G	First Generation
2G	Second Generation
3G	Third Generation
4G	Fourth Generation
5G	Fifth Generation
AMPS	Advanced Mobile Phone System
AMTS	Advanced Mobile Telephone System
ATOM	Advancing Telecommunications of Myanmar
CDMA	Code Division Multiple Access
DVB	Digital Video Broadcasting
EDGE	Enhanced Data rates for GSM Evolution
EOI	Expression of Interest
FDMA	Frequency Division Multiple Access
GDP	Gross Domestic Product
GHz	A Unit of Frequency Equal to One Billion Hertz
GPRS	General Packet Radio Services
GSM	Global System for Mobile Communication
HD	High-Definition
HDTV	High-Definition Television
ICT	Information and Communication Technologies
IMT	Improved Mobile Telephone
IMTS	Improved Mobile Telephone Service
ISP	Internet Service Provider
KSGM	KDDI Summit Global Myanmar Company Ltd
LTE	Long Term Evolution
MCIT	Ministry of Communication and Information Technology
MCPT	Ministry of Communication, Posts and Telegraphs
MHz	A Unit of Alternating Current (AC) or Electromagnetic
MIC	Myanmar Investment Commission
MMS	Multimedia Messaging Service
MPT	Myanmar Post and Telecommunication

MTN	Mobile Telephone Network
MTS	Mobile Telephone System
Mytel	Telecom International Myanmar Limited
NFS-C	Network Facilities Service (Class)
NFS-I	Network Facilities Service (Individual)
NS	Network Service
OFDM	Orthogonal Frequency Division Multiplexing
OML	Ooredoo Myanmar Limited
PDA	Personal Digital Assistant
PPIAF	Public Private Infrastructure Advisory Facility
PPIAF	Public Private Infrastructure Advisory Facility
PTD	Posts and Telecommunication Department
PTT	Push to Talk
QOS	Quality of Service
RIO	Reference Interconnection Offer
SIM	Subscriber Identity Module
SMS	Short Message Service
TD-SCDMA	Time Division-Synchronous Code Division Multiple Access
TML	Tenenor Myanmar Limited
TV	Television
UMTS	Universal Mobile Telecommunication System
UN	United Nations
USD	United State Dollar
USF	Universal Service Fund
USO	Universal Service Obligation
USO	Universal Service Obligation
WANs	Wide-Area Network
WCDMA	Wideband Code Division Multiple Access
WWWW	World-Wireless World Wide Web
YTP	Yatanaporn Teleport

CHAPTER I
INTRODUCTION

1.1 Rationale of the Study

The Telecommunications sector is developing with great momentum and has been contributing significantly to the economies of countries and also to the growth of other industries. The introduction of advanced technology and technological innovations makes it possible for the world to turn into a global village. The use of modern technology to communicate has developed widely spread economic activities, both in real estate and commodities as well as in credit facilities. Also, in the 21st century, after the post-industry era, there has been a move into information-based economic growth where countries and sectors try to equip themselves with the necessary telecommunication infrastructure. As a result, the need for an efficient, modern telecommunication sector is now regarded as crucial to the economic development of countries where modern telecommunication infrastructure is not only important for domestic economic growth but also in connecting the domestic market of commodities as well as credit with international commodity and financial markets.

The sustained growth in the telecommunications sector has been enabled by rapid progress in policy and technology development and the world has experienced a rapid growth in communication due to advancement in telecommunication technology. The significant contribution to the economies of countries has also lead towards the growth of other industries. Therefore, the basic telecommunication industry comprises a vast portion of the world’s economy. As a result, a nation's pace of domestic and commercial operations is influenced by the character of its telecommunications business.

Telecommunications companies are also trying to establish a large base of subscribers by providing different types of services to their users. They need to be innovative and creative in service provision. Competition in terms of quality products and marketing has pushed traditional telecommunication operators to new areas such as internet and broadcasting. It has brought tremendous changes in the present socio-

economic environment. Many users now view mobile telephone services as essential to their daily lives, particularly as a growing number of innovative services that go well beyond voice communication become available. Mobile devices become an indispensible part of lives to many users and the sense of urgency to retain a sufficient base of users to generate revenues is critical to a telecommunication firm.

In order for a telecommunication firm to survive, compete and grow, therefore, it is essential that the players in the market identify the needs and wants of users to provide products that address user needs more effectively and efficiently better than its competitors. Understanding and knowing the consumption patterns and behavior of users, who are using the firms' products and services, is essential for the firm to succeed. This is because the firm is then able to come up with products and services that serve the user needs and thus increase their user and revenue base.

Due of the impact it has had on their economies, emerging countries have recently seen tremendous change in this area. Myanmar's economy has also been impacted the most by the rapid growth of the Telecom industry in the past decade. Myanmar is now the world's latest telecommunications market according to analysts' figures and has seen a dramatic increase in the number of people who use cellular devices over the past five years. This very significant increase has changed the way people communicate with each other and, as a result, has resulted in demand for better and faster wireless service. In Myanmar, there are 4 operators providing telecommunications services and with fierce competition among them, they are trying to attract users and to keep them loyal to their products and services.

The users always consider factors such as price, service quality, network and social lifestyle before they choose using a telecommunications service in Myanmar. But the study needs to know which provider is the best of users' choices in current telecommunication service in Myanmar. The result has to complete aim of this study is to examine the factors affecting user's choice of telecommunications service providers in Thakata Township, Yangon.

The telecommunications service involved the price of voice calls, SMS messages, data packages, price plans, customer care service, service quality, sufficient network coverage, and download speed, depending on the class, groups and free on-net call. To narrow the scope of the study, the thesis selected Thakata Township to gather data and the data can get enough from respondents.

1.2 Objectives of the Study

The objectives of the study are;

1. To identify the current situation of the telecommunications sector and
2. To examine the factors affecting the user's choice on mobile phone service provider in Thaketa Township in Yangon Region

1.3 Method of Study

Both primary data and secondary data were used in the study. The descriptive method was used with questionnaires by conducting a survey with a sample of (200) respondents selected from the total population (221,314) in Thaketa Township. Simple random sampling method was used to collect the required sample. The secondary data were collected from published articles, journals, books, and internet websites and from Posts and Telecommunications Department, Ministry of Transport and Communications. For the data collection, a five-point Likert scale was used to assess the level of the respondents' perception towards the different items on the particulars.

1.4 Scope and Limitations of the Study

This study mainly focused on the factors considered by the mobile phone users in the choice of telecommunications service provider in 2022 .The users are mostly from offices, company staffs and housing. The study did not cover the areas outside Thaketa Township.

1.5 Organization of the Study

This study is organized into five chapters: Chapter one is introduction that includes the rationale of the study, objectives of the study, method of study, scope and limitation of the study and organization of the study. Literature review is presented in chapter two. In chapter three provides situation of the telecommunications sector in Myanmar. Chapter four contains analysis of factors affecting user's choice of telecommunications service provider in Thaketa Township. Chapter five contains conclusion with findings and recommendations.

CHAPTER II
LITERATURE REVIEW

2.1 Concept of Telecommunications

Telecommunications or telecoms is a process by which information such as voice, data, and video transmissions via electronic technologies like telephones (wired and wireless), microwave communications, fiber optics, satellites, radio and television broadcasting, and the internet is exchanged. In a telecommunications system, the smallest part is a “circuit” in which two stations are each equipped with a transmitter and a receiver. Information may be transmitted over the circuit using electrical wire/cable, optical fiber, or wireless technology, depending on the type of telecom technology being utilized.

A telecommunications network is utilized when more than two transmitting and receiving stations are used in combination with one another. The entire internet is the most comprehensive example of a telecom network. Wide-area networks (WANs), telephone and cellular networks, first responder communication systems, and broadcast networks are examples of networks that are smaller in scope. Telecommunications systems are managed by regulatory bodies of the individual nations, such as the Federal Communications Commission in the United States, and operated by telecommunications service providers. The government regulators must ensure that the public has access to the high-quality voice and data services that make telecommunications a part of everyone's daily lives. These service providers offer internet service, wireless service, radio, television, cable, and satellite television.

2.1.1 Role of Telecommunication in Economic Development

Since the 1980s, the telecommunications sector has seen a significant development in advancement. Since that time, first the world's industrialized nations have started to upgrade forms of electronic communication to maintain a constant flow of communication, which eventually intensifies their economic operations by giving a more advanced platform of communication. On the other hand, emerging

nations also embraced the lead when it became prudential regulation obvious that telecommunications played a key role in economic development. One of the most successful projects was the privatization of the telecommunications sector was taken by almost developed and later on developing counties. Gruber and Koutroumpis (2010), postulated that over the last three decades mobile telecommunication industry has rapidly grown around the world. Additionally, they concluded that developing countries, where there are 3.2 billion subscribers, are more likely to benefit from telecommunications technology than industrialized countries, where there are only 1.4 billion subscribers.

According to Gruber and Verboven (2001), a nation's economic component can significantly benefit from investments in telecommunications. One of the main driving forces of this investment, which significantly contributes to economic development, is the penetration of mobile phones. Additionally, because the internet is a key component of telecommunications technology and is heavily used by financial institutions, stock exchanges, insurance companies, mutual funds, and corporate offices, it has a substantial impact on economic development. Communication tools like phones, mobile devices, and the internet are increasingly seen as necessary for both personal and professional success as the influence of telecommunication on economic development is unquestionably acknowledged on a global scale. The rise of the number of subscribers, which in turn has a substantial impact on economic development through network extension and network quality improvement, is significantly and positively connected to the privatization of the telecommunications industry.

2.1.2 Importance of the Telecommunications Industry

Web browsing, email, social media and networking, web conferencing, phone services, file sharing, and other forms of telecommunication are crucial for business. Effective user and employee communication allows for the greatest possible level of collaboration and data sharing. Telecommunication enhances productivity and efficiency throughout one business. The distribution and administration of governmental services, commercial and economic activity, agriculture, health care, education, and transportation are just were some of the many areas in which telecommunication is significant. Early schooling only involved attending lessons during regular class hours. The introduction and development of communications,

however, has significantly changed many aspects of life. Students can experience distance learning or e-learning thanks to the internet, a component of the telecommunications service. In effect, this encourages students to choose higher study in their desired fields. The majority of course kinds that can be imagined are offered by these distance learning institutions, and they employ lecturers who conduct classes and distribute course materials to their students in a similar manner to that of traditional brick-and-mortar universities. However, the advantages that can be attained and enjoyed are detailed below. In terms of distance learning, everything is extremely simple; the only thing necessary is a computer with an internet connection so that the students may begin their coursework.

To enroll in their preferred college, students do not have to travel outside of their country or community. A wide range of courses is offered by well-known schools through the use of technology, allowing students to enroll from the comfort of their homes. The money they would have normally spent on airfare, hostel lodging, and other expenses is partially attributed to this. Additionally, students will avoid having to pay the transportation costs necessary for daily trips to and from their university. Students can simply continue with their employment and study at the same time because such online courses allow them to select their own learning hours. They could work all day and then study at night or whenever they have free time.

To enroll in a school of their choice, students do not need to move out of their city or country. Many reputable schools employ technology to offer a wide range of courses that students can enroll in from the convenience of their own homes. This allows them to save a significant sum of money that would otherwise be required for travel expenses, lodging, and other costs. Furthermore, students will also save the conveyance charges that they would have to bear to travel to and from their institution every day. Students can simply continue with both their employment and study at the same time because these online courses allow them to select the hours, they spend learning. They may complete their job during the day and study at night, or whenever they find the time.

The qualifications are equally significant, and the majority of these courses are certified and bear comparable value to the regular educational curriculum. Therefore, students who choose distance learning have the chance to land their desired careers after finishing such online courses. So, students opting for distance learning have the opportunity to get their dream jobs upon completion of such online courses.

Healthcare practitioners and patients both benefit greatly from the use of telecommunications technology in the healthcare industry. Telecommunications bring benefits to both patients and physicians. Patients can benefit from using telecommunication equipment to communicate with their healthcare provider without having to travel far; those with chronic conditions who need their vital statistics (like blood pressure and heart rate) to be monitored on a regular basis can send such details to their doctor without having to see them in person, and homebound patients won't have to travel as far to receive care. Benefits for the physicians are that there will be shorter wait times in the clinic as fewer patients will need to visit the doctor physically, and thus the doctors will be able to serve more patients, more effectively as the physicians will be able to keep a track of their patient's condition regularly, they will be able to offer better care and better treatment. Also in the world of business, telecommunication serves as an important tool for firms and businesses. Owing to it, companies are experiencing more success and many benefits. As telephones are still used by most companies, using call management techniques, businesses can handle incoming calls easily. In case other lines are busy in such situation, calls are transferred to other employees who have the skills to manage such calls. With the help of mobile telecommunication, it becomes easier for employees working from home or from remote locations to communicate effectively. They can access data, send and receive messages, take part in conferences, and work on documents using telecommunications equipment. Even though it is possible for all team members to physically attend vital meetings, teamwork is essential for projects to succeed. Telecommunication saves the day during this circumstance. A teleconference or web conferencing can be planned using video conferencing software in which team members from all over the world can participate seamlessly.

Regarding a country's economy, agriculture plays a very important function. Farmers can receive simple meteorological information through telecommunications about potential earthquakes, thunderstorms, or other natural disasters. Additionally, they can be taught how to stop the effects of such disasters as soon as they occur. Telecommunication is used in the transportation industry to control a fleet of vehicles used for both freight and passenger transportation, as well as to fly and land aircraft. Telecommunication has made it possible to control the flow of human transportation as well. Telecommunications, which are also a requirement, improve how effectively the government's machinery functions. For instance, communications are needed by

the police to the functioning of the government apparatus is enhanced by the use of communications, which are also a requirement. To maintain control and command in the air, on the water, and on land, for instance, the police rely on telecommunication. Communications aid nations in coordinating the three levels of government in public administration.

2.2 Evolution of Mobile Telecommunications

The rapid transition from 1G to 5G in mobile technology has increased the attractiveness of mobile communication during the past few years. Due to the requirement for service-compatible transmission technology and a significant increase in telecom subscribers, this change is required. A new frequency band or change in the nature of a transmission technology that is service compatible is referred to as a generation. Since the beginning of the mobile cellular era in 1980, mobile communications have undergone significant advancements and have grown significantly.

2.2.1 First Generation (1G)

These phones, which were launched in 1982 and were completed at the beginning of 1990, were the first mobile phones to be used. It was voice-based and based on a technology known as the Advanced Mobile Phone System (AMPS). With a channel capacity of 30 KHz and a frequency spectrum of 824-894MHz, the AMPS system used frequency modulation and frequency division multiple access (FDMA).

It introduces mobile technologies such Push to Talk, the Improved Mobile Telephone Service (IMTS), the Advanced Mobile Telephone System (AMTS), and the Mobile Telephone System (MTS) (PTT). Since voice communications were played back in radio towers, making them vulnerable to uninvited third-party eavesdropping, it had a low capacity, an unstable handoff system, bad voice connectivity, and no security at all.

2.2.2 Second Generation (2G)

The second generation, or 2G, first appeared in the late 1980s and was based on GSM. Voice communication is done using digital signals. This technology's main focus was on digital signals and it provides lower text and picture message delivery capabilities (in kbps). It performs within a 30 to 200 KHz bandwidth. In comparison

to 2G, 2.5G systems, such as GPRS, CDMA, and EDGE, use packet-switched and circuit-switched domains and offer data rates of up to 144 kbps. The GSM technology was continuously improved to provide better services, which resulted in the development of advanced 2.5 G technology, which stands between 2G and 3G.

2.2.3 Third Generation (3G)

Third generation (3G) was launched in 2000. This technology's goal was to provide high-speed data and the initial technology was enhanced to provide data transfer rates of up to 14 Mbps and higher utilizing packet switching. It makes use of a wide band wireless network, which improves clarity. Data services, video access, and new services like global roaming are also provided. It contains a 2100MHz frequency range and a 15-20MHz capacity for high-speed internet and video chatting. In Europe, the 3G mobile system was known as UMTS (Universal Mobile Telecommunication System), whereas a American 3G variant is classified as CDMA2000. Furthermore, the IMT2000 has certified the TD-SCDMA 3G technology from China. The air-interface technology for UMTS is WCDMA.

2.2.4 Fourth Generation (4G)

The fourth generation (4G) provides 100Mbps download speeds. In addition to offering the very same features as 3G, 4G also provides additional services like Multi-Media Newspapers, better TV viewing, and faster data transmission than previous generations. Long Term Evolution (LTE) is a type of 4G technology. In order to support future applications like wireless broadband access, multimedia messaging service (MMS), video chat, mobile TV, HDTV content, digital video broadcasting (DVB), minimal services like voice and data, and other bandwidth-intensive services, 4G is currently being developed.

2.2.5 Fifth Generation (5G)

Fifth generation (5G) is the term that describes the Fifth Generation, which began in the late 2010s. Better levels of connectivity and coverage are among the amenities that could be offered by 5G technology. The World-Wireless World Wide Web (WWWW), which is a fully wireless communication system with no restrictions, will be the primary focus of 5G.

Fifth Generation (5G) technology stands for 5th generation mobile technology, Fifth Generation technology has extraordinary data capabilities and has ability to tie together unrestricted call volumes and infinite data broadcast within latest mobile operating system. Fifth Generation technology has a promising future because it can manage the best technologies and provide customers with priceless handsets. It's possible that 5G technology could soon dominate the global market. The technology of the Fifth Generation is incredibly capable of supporting software and consulting. High connectivity is provided by the 5G network's router and switch technology. The deployment of 5G technology allows for the combination of wired and wireless network connections to provide internet access to nodes within the building. In near future 5G technology provides a cell phone which is like a PDA and then the whole office will be in our finger tips/in our phone. We may be able to download a full-length HD movie in six seconds in a few years, compared to seven minutes and more than an hour for 4G and 3G, respectively. Furthermore, video conversations will be so deep that they will make us feel as though we can reach out and touch the other person through the screen. A packet-switched wireless network with high throughput and extensive coverage, 5G. With millimeter wireless and OFDM, 5G wireless can operate in the 2-8 GHz frequency range with a network speed of 20 mbps. It is intended that the 5G communications network will be a true wireless network that can enable wireless World Wide Web (WWWW).

2.3 Telecommunications in Economic Growth

Numerous experts have been interested in the function of telecommunication in economic growth and development for many years. All of the studies that attempted to examine the impact of telecommunication on economic development—Hardly (1980), Lichtenberg (1995), Greenstein and Spillar (1996), and Norton (1992—confirmed that there is a strong positive relationship between telecommunication and economic the growth of a country. Azim and Mahmood (2008) discovered that telecommunication growth had a strong beneficial impact on the GDP by looking at the eight-year span of 24 countries. (2008) Kateja and Jha looked at if there was any connection between India's economic expansion and the continued development of telecommunications. They asserted that telecommunications infrastructure differs greatly from other forms of infrastructure. As a result, it has an essential and favorable impact on the growth of the economy.

As an imperative element of telecommunication, tele-density and its impact over the economy was investigated by conducting a comprehensive study in Iran based on the data from the 1960s to 2012, GDP and telephone density have a positive connection, according to Sadr et al. (2012). Jhunjhunwala (2000) revealed that the tele-density in the developing country is low because of the higher cost of providing telecommunication service. Due to their greater purchasing power, more than 90% of households in developed nations may readily use a telecommunications service. In India, just 6% of households have the ability to pay such a higher telecommunications service cost compared to that proportion. Conversely, Jain and Sridhar (2003) stated that the use of wireless technology can greatly lower the long-term cost of delivering communications service to the general public, which is currently quite costly. Another intriguing study indicated that telecommunications have a favorable, positive impact on the growth of an economy (Waverman and Fuss, 2005).

2.4 Factors Affecting User's Choice on Telecommunications Service Provider

The majority of the researchers in this study have examined the factors that affect customers' decisions about which ma telecommunications service provider to use. These aspects include service quality, perceived price and value, network quality, and social lifestyle.

2.4.1 Quality of Service

During the past few decades, service quality has drawn a lot of attention from researchers and practitioners due to its strong impact on business performance, user satisfaction, user loyalty and profitability. Service quality is usually understood as a measure of how well the level of the delivered services matches user's expectations (Santos, 2003).

Santouridis and Trivellas (2010) examined the effect of service quality and user satisfaction on user loyalty in the Greek mobile telephony sector. Their analysis showed that service quality is a big determinant of both user satisfaction and loyalty user support, pricing structure and billing system having positive effects on both concepts. They also found out that network quality dimension had a significant positive effect on loyalty but not on user satisfaction. Network voice clarity and coverage have become a basic requirement for a mobile service provider to offer.

Their studies further established that value-added services and mobile device did not significantly affect user loyalty. This therefore points to the fact that mobile phone users pay more attention to issues relating to user service issues, billing, pricing rather than value added services.

Wang and Lo (2002) concluded that perceived quality directly influences user satisfaction. Thus, as the level of perceived quality increases, the level of overall user satisfaction also increases. They also concluded that even though user expectation has a positive effect on overall user satisfaction, it can only indirectly influence overall user satisfaction through the perception of quality. User expectations do not have a significant direct effect on overall user satisfaction. As a consequence, increases in user expectation levels increase the perceived level of quality which in turn increases the level of overall user satisfaction. Since perceived quality is measured by overall quality, customization, and reliability, organizations can therefore emphasize these indicators in providing services or products to serve their user better.

A telecommunication service provider should therefore concentrate on improving its service quality, and charge fair prices to ensure user satisfaction. This will ultimately lead to users getting attracted to the organization and consequently be retained. Alvarez and Casielles (2004) noted that even though immediate price reduction influences users' brand choice, it is likely that the users acknowledge the promotions but do not change their buying behaviors, leading to investments into promotions that do not bring any value to the organization.

2.4.2 Perceived Price and Value

According to Kotler (2008), price is considered to be the amount of money charged for a product or service, or the sum of the values that users have to give in exchange for benefits derived from use of product or service. The price of a product is influenced by the product, user characteristics, and the situation in which the price information is embedded. This is because users hardly carry price information around with them. Kotler (2008) noted that perceived value is the user's perception of utility in comparison to what is exchanged for a product or service. In markets with high switching costs users tend to buy the same brand that they are already using even though there are other identical brands with similar functionalities but cheaper available in the same market. The price of the product thus does not impact their purchasing behavior. Perceived switching costs have a positive influence on user

loyalty as empirically demonstrated by Aydin, Ozer, and Arasil (2005) in the mobile telecommunications industry of Turkey.

According to Lee and Feick (2001) mobile-lovers show their strong attachment to value-added services. Therefore managerial implication is that firms are better off implementing a feature-based differentiation of service products than using a typical price discrimination scheme. Alvarez and Casielles (2004) argued that the price of products and brands at the moment of the purchase constitutes a variable of interest. It will act to favor the purchase or choice of a specific brand (at a low price), or reduce the likelihood of its purchase or choice (at a high price). Similarly, given the importance of price, consumers usually form a reference price. Thus, when the user has to take a decision, he or she will act after comparing the price on offer with the reference price.

Attracting and retaining users can be a difficult task. Users are normally faced with different options of products and services to choose from. A user would normally buy from a firm that they feel offers the highest value to them. This is their evaluation of the difference between the benefits and costs compared to those of competing products. Users quite often are not able to judge product values and costs accurately or in an objective manner (Kotler, 2008).

According to Hooley, Piercy, Saunders, and Nicoulaud (2008), users' perceptions and what they believe about a product can be more important to them than the objective reality. If they believe it gives them a particular benefit which is of importance to them, then they would choose the product. With technological advancements for products development, most if not all products have limited lives and will exist as solutions to customers' problems until a new product comes into the market. Products life cycles are increasingly shortening with the rapid introduction of new products in the market rendering existing products obsolete.

According to Kotler and Keller (2011), the user product value consists of core benefits that the user is buying, these include: basic product; the essentials of the user need, the expected product; the attributes and conditions that the buyers of the product normally would expect to get, an augmented product that exceeds the user expectation and ultimately the potential product that captures all possible transformation that the product might go through in the future. Lee et al. (2001) further concluded that mobile-lovers are less sensitive to the pricing aspects of services. In other words,

heavy users' degree of satisfaction with pricing was far less important than that of regular users.

They appear to be willing to pay for a wide variety of supportive services.

According to Lai (2004), several researches have been done to measure the relationship between user satisfaction and perceived value derived. The user's value perception has been defined as a low price, value being whatever they want in a product, the quality they get for the price they pay, and what they get for what they give. Zeithamal, Pasuraman, and Berry (1990) further defined perceived value as the overall assessment of the product based on what is received and given.

2.4.3 Network Quality

Network quality is an important aspect in identifying and selecting the network of choice, based on studies carried out by Wang and Lo (2002) the mobile operators in China compete in network quality by a large amount of investment in network extension and upgrading, supported by their research findings since network quality is one of the most important drivers of overall service quality, user value, and user satisfaction.

According to studies carried out by Wang and Lo (2002), just as both China Mobile and China Unicom have been doing, priority should be given to how to reduce user-perceived sacrifice and improve network quality, since mobile communication users in China perceive these as the key factors influencing their evaluation of user value, user satisfaction, or service quality, which, in turn, drive them to make actual purchasing decisions.

2.4.4 Social Lifestyle

The lifestyle status of each person throughout his life depends on a family group, clubs, and organizations. A person's position within each of these groups can be defined based on the role and status of the individual. A person is expected to perform certain tasks in every role. Someone may have the role of the daughter of a family, and besides her family, they may have the role of a wife and a mother, and also the role of sales manager in the company where she works. Each of these roles has special effects on consumer behavior, according to Kotler and Armstrong (2010). For example, company managers need to call credit more than any other members of

the company. Each role has dignity, which is the respect that society has toward that role.

Generally, people choose products that are the messengers of their social role and status in the community (Kotler & Armstrong, 2010). The normative influences exerted on a person when they accept a role cause them to act in a particular manner. The decision maker plays a crucial part in customer behavior since she makes the ultimate decision regarding which brand to select. The most fundamental reason for a person's wants and behavior patterns, according to Kotler and Armstrong (2010), is their own cultural background, which includes the basic values, perceptions, wants, and behaviors they learned from their families and other significant institutions. Cultural factors have always had the broadest and deepest impact on consumer behaviors. Thus, a person's lifestyle will be influenced by the culture in which they live. The study has managed to review key studies from available literature on telecommunication mobile subscribers and the factors that influence their choice of the mobile service provider. Of all the areas discussed in the literature review, it is evident that only a few are close to the study concept, for example, that of Santouridis and Trivellas (2010) which examined the effect of service quality and customer satisfaction on user loyalty in the Greek mobile telephony sector. The fact that perceived switching costs have a positive influence on customer loyalty is empirically demonstrated by Aydin, Ozer, and Arasil (2005) in the mobile telecommunications industry of Turkey.

Kotler and Armstrong (2010), Foster and Cadogan (2000), and Gil-lafuente and Luis- Bassa (2011) established that user calling behavior is influenced by various factors. In the cases analyzed in the literature review section, the studies carried out did not look at all the factors that could determine users' choice of mobile service provider i.e. price, service quality, products and services, network quality, and social lifestyle, also, the studies did not explicitly elaborate on the extent of the effect of the same variables on users' choice of telecommunications mobile operators. Consequently, the study carried out by the researcher has analyzed the listed factors that determine and influence a telecommunications mobile subscriber's choice of a mobile operator in the Myanmar market, with a focus on Yangon.

2.5 Review on Previous Studies

Maburuka, I.R. (2016) conducted a research on the determinants of user's choice of service providers in Kenyan mobile industry and the determinants are price, service quality, products and services, network quality and social lifestyle. The results showed that the subscribers consider all the factors individually as important in their choice of mobile service provider to varying degrees. Among the variables of price, service quality, products and services, network quality, and social lifestyle, the study concluded that subscribers consider that network quality and price were the most important in their choice of mobile service provider. The study concluded that according to the study outcome, service quality was the least important variable amongst the other variables of price, network quality, and social lifestyle. Based on the studies, it is established that the key reasons for having a second mobile service provider were cheaper products and services, mobile money transfer services and a clear network. Given that respondents identified pricing as the primary factor in their decision of which mobile service provider to use, mobile service providers should implement sensible pricing strategies.

Kofi Ampomah, Yirenkyi (2012) carried out research on factors affecting Customer satisfaction and preference in the telecommunications industry: A case study of MTN Ghana and found that in the telecommunications industry, service quality, service recovery, price fairness, brand image, and user orientation of service employees potentially impacted the level of mobile telecommunications subscriber (customer) satisfaction. Nevertheless, based on the empirical results, the study concluded that service quality and price fairness were the most important determinants of user satisfaction in a mobile telecommunications company. This study found that the lower the service quality, the lower user satisfaction, and the greater the perception of price unfairness and the greater the level of dissatisfaction among users.

After reviewing the above studies, the thesis concluded that four variables would generate the most relevant results for the analysis: service quality, perceived price and value, network quality, and social lifestyle.

CHAPTER III
OVERVIEW OF THE TELECOMMUNICATIONS SECTOR IN MYANMAR

3.1 History and Development of Telecommunications in Myanmar

Even though the country's first telegraph lines were built there in 1861, it wasn't until 1884—eight years after Sir Alexander Graham Bell had created the revolutionary device—that telephone services were introduced in Myanmar. About 1300 telephone lines were in use in Yangon in 1884, but then that number increased significantly over the years. In 1937, links to another 50 provincial towns were constructed using open wire lines and open wire carrier systems, which may be used for both telegraph and telephone services.

In the years following the war, the requirement for telecommunication services increased. In 1956, Myanmar Posts and Telecommunications (MPT) began a project named Yangon Automatization, which was completed in 1962 and included four crossbar switches in Yangon. By the end of 1962, there were 14,754 telephone lines and 80 exchanges nationwide, including 4 crossbar automatic exchanges in Yangon. The number of telephones reached 21,444 in 1967 and has kept increasing ever since. About 143 exchanges, 6 of which were automatic exchanges in Yangon, were part of the MPT network up until the early 1970s. Around 17,400 telephones were in use in Yangon overall at the time, and 22,000 were. For national long-distance communication, the first low-capacity microwave transmission system was introduced in 1960 in the delta area. Other national long-distance communication systems at that time were 3 and 12-channel open wire carrier systems. H.F radio transmission was the primary method of communication at the time for both international telephone and telex services.

The first effort to promote and enhance the provided communications services was started by MPT in 1978. The project includes installing local crossbar automatic exchanges (3 in Yangon and 12 in provincial towns, including Mandalay, Myanmar's second capital city), 5 systems of 6 GHz 960 channel baseband analog microwave systems, 2 national transit crossbar exchanges (one in Mandalay and one in Yangon),

a standard B satellite earth station with one SPC international gateway switch, and one SPC telex switch. In this way, MPT was the primary organization in charge of the growth of the telecom industry in Myanmar.

The availability and quality of telecommunication services in Myanmar come up short of international and regional standards due to the existing monopoly provision of services by the state-owned Myanmar Post and Telecommunications (MPT) agency. The country had a lower mobile phone penetration rate than North Korea at the time, and the average Myanmar resident could not afford the cost of ICT services. The data indicated that the population had a mobile phone penetration rate of about 10%, which was much lower than the rates of 93 percent in the Lao People's Democratic Republic and more than 120% in Cambodia and Thailand.

3.2 Policies, Laws and Rules Concerning Telecommunications Sector

By promoting competition in this industry, the government created a policy framework for the growth of the nation's telecommunications market. The policy objective, as stated in the Government's Invitation to Tender (February 2013), is to assist in the overall achievement of Myanmar's development goals and facilitate a broad-based, investment-beneficial growth of the country's telecommunications sector. The main overarching objectives of this policy are (a) to increase the country's overall tele-density to 75 to 80 percent by 2015 to 2016; (b) to make telecommunications services accessible to the public at reasonable prices in both urban and rural areas; (c) allow citizens and businesses to select the telecommunications services and providers of their choice; and (d) increase the use of telecommunications services in the country and (d) more broadly, to develop the ICT sector. The Government is also in the process of finalizing a sector roadmap for the telecommunications sector and is going to develop an e-Government road map.

The new Telecommunications Act and related regulations will be adopted, two new telecommunications service licenses will be issued by 2013, an independent regulator will be established, the current state-owned operator, MPT, will be restructured, and a framework for universal services will be developed, according to the government's policy framework. On October 8, 2013, President Obama signed the Telecommunications Act into law. The law was developed after extensive stakeholder consultations over a 12-month period. The World Bank also had the chance to offer suggestions for the draft law, and the finalized law offers a good foundation for

participation. The Telecommunications Act has several main goals, including the following: (a) to promote the development of the nation and national economic growth through the widespread use of telecommunications technology; (b) to enable more private sector involvement in the advancement of the telecommunication sector; and (c) to increase opportunities for the general public to use telecommunication services by expanding the telecommunication network across the entire nation and facilitating international trade. By 2015, the Myanmar Telecommunications Commission (MTC), an independent regulator, will be established in policy framework and the telecommunications law.

There were four main ICT laws in the old days; The Myanmar Telegraph Act 1885; The Myanmar Wireless Telegraphy Act 1934; The Computer Science Development Law 1996; The Electronic Transactions Law 2004.The Myanmar Telegraph Act, 1885 and the Myanmar Wireless Telegraphy Act 1934 were repealed by the 2013 Telecommunications Law as they are not in conformity with the current Myanmar Telecommunications Market.

3.2.1 Computer Science Development Law

The objectives of the Computer Science Development Law are to contribute towards the emergence of a modern developed state through computer science; to lay down and implement measures of computer science and technology; to cause extensive development in the use of computer science in the respective fields of works, and to supervise the import and export of computer software of information. The Computer Science Development Law consists of Objectives, Formation of the Myanmar Computer Science Development Council, Duties and Powers of the Council, Formation of Computer Associations, Formation of the Federation, Duties and Powers of the Federation Finance, Prior Sanction and License, Offences and Penalties, and Miscellaneous.

3.2.2 Electronic Transactions Law

The aims of the Electronic Transactions Law are to support electronic transactions technology in building a modern and developed nation; to obtain more opportunities for all-round development of sectors by electronic transactions technology; to recognize the authenticity and integrity of the electronic record and electronic data message and give legal protection thereof; to enable transmitting,

receiving and storing local and foreign information simultaneously; to enable communicating and co-operating effectively and speedily. The Electronic Transactions Law covers Title and Definition, Aims, Applications, Formation of the Central Body of Electronic Transactions Control Board and Functions and Powers thereof, Certification Authority, Subscriber, Electronic Record, Electronic Data Message and Electronic Signature, Contracts made by Electronic Technology, Taking Administrative Action, Application for Revision Appeal, Offences and Penalties, and Miscellaneous.

The Electronic Transactions Law contains very broad enabling provisions that allow any legal requirements for signatures to meet by electronically signatures and contracts to be formed electronically. Some significant exceptions (including documents relating to title) are listed in that law. The Electronic Transactions Law establishes the Central Body of Electronic Transactions to implement the legislation, comprising the minister for the Ministry of Communications and Information, Technology as the Chairman and the relevant ministries, governmental departments and organizations and technicians as members. The legislation also establishes the Electronic Transactions Control Board for the day-to-day regulation of electronic signatures.

3.2.3 The Telecommunications Law

According to the Telecommunications law, there are three types of licenses, notably: the Network Facilities Service which is subdivided into Individual and Class licenses – NFS-I and NFS-C), the Network Service (NS) and the Application Service (AS) licenses. The Network Facilities Service License (Individual) (hereafter referred to as the NFS(I) License) is at the highest hierarchical level and permits Licensees holding this authorization to engage in all activities authorized by the NFS(I) License, Network Facilities (Class) License, Network Service License and Application Service License. NFS(I) Licensees shall not be required to apply for or register for any other Licenses issued under this Licensing Framework.

The Network Facilities Service (Class) License permits Licensees to engage in only those activities authorized by the NFS(C) License unless the Licensee holding this authorization also applies for and obtains another Telecommunications Service License. An NFS(C) Licensee may apply for and obtain a Network Service or

Application Service License, and would subsequently hold a maximum of two (2) Telecommunications Service Licenses.

The Network Service License permits Licensees to engage in all activities authorized by the NS License and the Application Service License but does not permit such Licensees to engage in activities authorized by the NFS(I) License or NFS(C) License. An NS Licensee may apply for and obtain an NFS(C) License, and would subsequently hold a maximum of two (2) Telecommunications Service Licenses. If an NS Licensee applies for and obtains an NFS (I) License, then the NFS(I) License would replace the NS License.

The Application Service License permits Licensees to engage in only those activities authorized by the AS License. An AS Licensee may apply for and obtain an NFS(C) License, and would subsequently hold a maximum of two (2) Telecommunications Service Licenses.

Since an NSF-C license only permits the construction and holding of passive infrastructure and the leasing of it to an operator, it is actually preferable to count the NFS-I and NFS-C as independent entities entirely. Besides these licenses, other authorizations also exist under the Proposed Licensing Rules, such as the “Equipment License”, approval for the use of spectrum which is not included in the NFS-I or the NS license and authorizations for numbering.

3.2.4 Licensing Rules

The Licensing Rules include the four licenses, and the processes for obtaining the licenses. More precisely, the application process for NFS-I and NS licenses is more complicated than that for AS and NFS-C licenses. For AS and NFS-C licenses, it appears that only a registration is required. The evaluation process periods are similar to the Myanmar Investment Commission (MIC) evaluation periods up to 90 days. The MIC may not accept applications and will refer to the MCIT for the NFS-I and the NS licenses.

In addition, the telecommunications law applies to both local and foreign licenses. However, each is subject to slightly different rules. Local and foreign applicants need to apply for a telecommunications service license with the Telecommunications Department of MCIT. The Telecommunications Department will review the application and submit its recommendation to MCIT (for local applicants) or the Union Government of Myanmar (for foreign applicants). Upon

approval, the Telecommunications Department will issue a service license with a validity period of 5 to 20 years; subject to re-approval by MCIT upon reapplication. Providing a telecommunications service without a license can lead to imprisonment of up to 5 years and fine with no statutory limit. MCIT and the telecommunications Department will enforce all telecommunications regulations. MCIT can set a license fee, renewal fee, usage fee, service charge and technology fee.

3.2.5 Interconnection and Access Rules

The Interconnection and Access Rules impose an obligation upon operators to interconnect with other operators. Especially, the so-called market-dominant operator, which would have to be the MPT initially, has an obligation to issue a Reference Interconnection Offer (RIO) with standard terms and conditions under which it is prepared to interconnect. The RIO must also be posted on the dominant operator's website. According to the Interconnection and Access Rules, quick negotiations and non-discriminatory treatment in the application of interconnection rates must be required. Interconnections between service providers must be conducted on an equitable and non-discriminatory basis, and the technical standards and quality of connection should not be lower than that provided in the licensee's own network. The Telecommunications Department has the authority to set the rules and regulations. Any interconnection agreements between service providers must be approved by the Telecommunications Department. The enacted text does not explicitly state that fees for interconnection and access to infrastructure or services must be charged on a cost basis. The Interconnection and Access Rules chose that idea, but it has been watered down. Section 9 a) of the Proposed Interconnection and Access Rules now states that "rates for Interconnection services shall be cost-oriented and set to allow the Qualifying Licensee providing the service to recover its costs of providing the service together with a reasonable return on its capital employed". The term "reasonable return" is not further defined. Rules for Telecommunications Sector relating to Licensing, Access and Interconnection, Spectrum, Numbering, and Competition notes on the subject that "retail minus" and "cost-based pricing" might alternatively be employed. The retail minus method would certainly lead to an element of profit being introduced into the equation.

The Telecommunications Law includes price control tools. The Telecommunications Department is mandated to determine certain consumer

protection standards that will apply to service licenses. The law requires that all licensees have to submit a schedule of tariffs which needs to be approved by MCIT. Any behaviors against free and fair competition in the telecommunications market are prohibited. As an entirely new competitive environment emerges in Myanmar, and as a wide range of network assets is being deployed, a number of new legal issues emerged. Competition and access concerns became central points of Myanmar telecommunications policy.

3.2.6 Competition Rules

These Rules are made to provide a regulatory framework for the promotion of fair competition in the telecommunications sector in the Republic of the Union of Myanmar and the protection against anticompetitive practices, pursuant to Chapter XI of the Telecommunications Law and all matters related thereto.

The rules apply to all Licensees and any other providers of telecommunications services in the Republic of the Union of Myanmar which shall remain subject to any conditions regarding anticompetitive conduct set out in the Telecommunications Law, other laws and regulations and their licenses and any non-Licensee that enters into an anticompetitive Agreement with a Licensee or is party to a Transaction involving a Licensee.

These rules provide guidance relating to the standards and procedures that the Department will apply in determining whether particular conduct constitutes Lessening of Free Competition for the purposes of the Telecommunications Law; what understandings, Agreement, or arrangements the Department will find to be anti-competitive, and so prohibited under the Telecommunications Law; the standards and processes which the Department will apply to define relevant markets and determine whether one or more Licensees have a Dominant Position in one or more telecommunications markets; the ex-ante competitive safeguards and remedies that may be imposed on Licensees found to have a Dominant Position in one or more telecommunications markets and the process the Department will follow to review and approve or reject Tariff applications.

3.2.7 Numbering Rules

In order to promote healthy competition, innovation, and consumer choice, these laws seek to ensure that there are sufficient numbers available for all eligible

Licensees while ensuring that they are granted fairly, publicly, and without discrimination. They are designed both to create additional capacity and to increase future flexibility to allow the unhindered development of Myanmar's National Numbering Plan into the long-term future. These Rules govern the management and use of numbering resources in the Republic of the Union of Myanmar, include the process to allocate numbering resources to eligible Licensees and contain the rights and obligations of persons using numbering resources.

3.2.8 Spectrum Rules

Spectrum regulations are intended to maintain a streamlined, liberalized, transparent, and non-discriminatory spectrum management framework that stimulates innovation and the effective use of the spectrum resource in order to speed up the provision of telecommunications services to the people of Myanmar. These rules provide for the management and use of radio frequencies and Radio apparatuses and contain the rights and obligations of organizations and individuals involved in the management and use of radio frequencies in the Republic of the Union of Myanmar. These rules govern the process to authorize the use of Frequency Spectrum by eligible licensees. These Rules apply to Radio Apparatus operating within the territorial limits of the Republic of the Union of Myanmar, on any ship registered in Myanmar and on any aircraft registered in Myanmar.

The PTD has put a lot of effort into creating a comprehensive set of rules to ensure that the market can develop in an open and competitive manner. Conduct and agreements that lessen competition may be challenged by the Regulator, and trigger penalties. For example, failing to provide interconnection, preemptively securing scarce facilities to prevent others from using them, or using different rates for services to licensees may be deemed anti-competitive. Agreements between licensees or between a licensee and a non-licensee are prohibited insofar as the agreement has "the object or effect of significantly preventing, restricting or distorting competition in any relevant telecommunications market". There are far-reaching rules on having to provide interconnection and access to infrastructure to other licensees. In a market, where there is only one market-dominant operator, the new entrants need to make sure that the dominant operator does not pull the sheet too far to his own side. Therefore these rules mentioned above are actually necessary.

3.3 Telecommunications Sector Reform

3.3.1 Pre-reform Situation

Myanmar was one of the last untapped telecommunication markets in the world. In 1999, the first wireless network based on Code Division Multiple Access (CDMA) Technology was introduced. Then, in 2002, Global System for Mobile Communication (GSM) was created, and the 3G network was first made available for purchase in 2008. For many years, the Ministry of Communication and Information Technology (or Ministry of Communication, Posts, and Telegraphs (MCPT) previously) had acted as Myanmar's telecommunication regulator and owned the primary telecommunication operator, Myanmar Posts and Telecommunications (MPT). MPT was the only GSM mobile operator in the country that served 2G and 3G networks for Myanmar.

The mobile telecommunications market in Myanmar was significantly underdeveloped. While MPT had been the country's telecom operator deploying and managing both mobile and fixed networks, YTP had been leading as an ISP in Myanmar deploying and operating WiMAX services commercially. Mobile roaming services in Myanmar were very limited. MPT had limited number of roaming partners and had no Short Message Service (SMS) Hub to connect MPT's customers with operators around the globe. At the current level of network deployments at the time, only three major cities were covered by wireless mobile networks including regions around Yangon, Nay Pyi Taw and Mandalay. There were about 14,000 kilometers of fiber in Myanmar and around 1,800 mobile telecom towers across the country. The government owned most of telecom infrastructure.

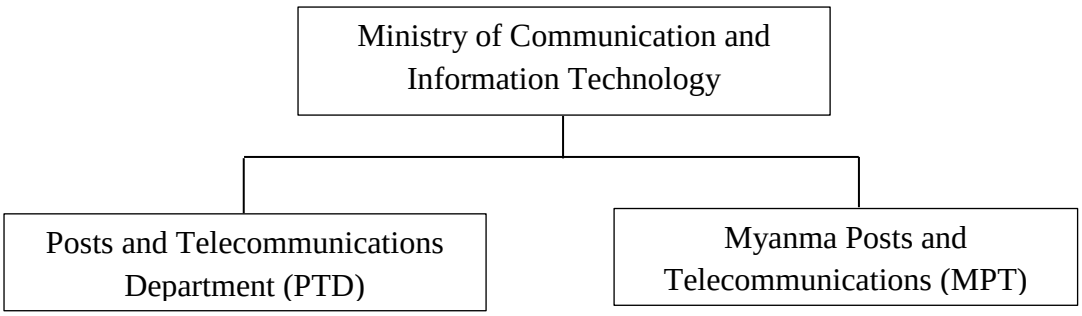
The cost of connections had been a huge barrier in accessing mobile telecom services in Myanmar. In fact, SIM cards were priced around USD 150-200 in the market (and it used to be about USD 500-600 a few years ago) and it went higher in black market. According to MCPT, the number of connection was 5.44 million connections or 10.3% of penetration level. 2G user was about 66% or 3.62 million from total connection, 14% or 0.74 million was 3G users and the remaining 20% was using CDMA technology. Yangon and Mandalay were two regions with the highest number of connection with approximate 1.795 million. On fixed telecommunication lines, Myanmar had about 1% penetration or 604.5 thousand lines. The dispersion of fixed telephone infrastructure was biased toward larger cities such as Yangon and Nay Pyi Taw. Most villages in rural areas remained without fixed line service. It was

identified that currently around 1,800 tower sites had been deployed in Myanmar by the incumbent operator, MPT. The current network covered only the major highways and cities of Yangon, Nay Pyi Taw and parts of Mandalay region.

Therefore, when the quasi-civilian government was elected in 2010, Myanmar planned and implemented important economic and governance reforms, and there was limited experience to manage the change process. Public administrators had limited capacity to: (a) design and implement new institutional arrangements; (b) deal with large international operators in outward-facing sectors like the information and communication technologies (ICT) sector, and (c) manage the transition to a market-driven economy because they had unfamiliar with the concepts of market liberalization. Similarly, staff from the government and state-owned entities had had limited exposure to market regulation and competition-driven business practices.

Therefore, until 2014, the telecommunications industry in Myanmar had been essentially a government monopoly with the state-owned operator, Myanmar Post and Telecommunications (MPT), deploying and managing the fixed and mobile telecommunications services in the country. The Posts and Telecommunications Department (PTD), which is MPT's regulatory body, serves as both the mobile and fixed telecom network operator for the Ministry of Communication and Information Technology (MCIT).

Figure (3.1) Institutional Structure of MCIT



Source: Ministry of Transport and Communications

The Ministry of Communication, Posts and Telegraphs regulated the telecommunications industry (MCPT). The media and telecommunications sectors of Myanmar's communications industry have been under the management of the MCPT. The main responsibilities of MCPT in the telecommunication industry in Myanmar include arranging public communication service for Myanmar's people, establishing communication centers and routers with standard requirement, issuing licenses for all communication industry, collecting licenses fee from the stakeholders, monitoring communication services according to Laws, Rules and Regulations, managing radio frequency resources and monitoring standard and quality of communication services in the country. With the new structure, PTD was designated as the regulator and MPT as the operator. Both MPT (the government operator) and PTD (the regulator) fell under the purview of Ministry of Communication and Information Technology (MCIT).

The government played an important role in both media and telecommunication sectors by owning majority stakes in the key sector companies. The country's fixed and wireless networks are managed by MPT, the government-controlled telecom operator, which is owned by the government and in which it has a majority ownership. Along with MPT, the only other provider of internet services is Yatanaporn Teleport Co. (YTP), which is majority-owned by the government. Additionally, the government dominated the media sector, with just a small number of commercial businesses and opposition party groups. The monopoly of the state-owned telecom services was expected to end with the recent developments in granting new mobile telecom licenses to two new international private mobile operators. Both

the new mobile operators were expected to launch their services mid of the year (2014).

In an effort to improve telecom access throughout the nation and create a level playing field for all telecom operators, including the current state-owned operator and the two new private companies, the government was developing and finalizing a new Telecommunications Law. However, there were many unresolved matters that must be addressed if Myanmar wants to be successful in delivering the much-needed communication services to the country, especially on the following:

(a) The split of the Ministry into a regulatory and enterprise company
(b) Finalizing key regulations and laws for the telecommunication sector
(c) Managing frequency allocation for each player in the telecommunication sector

The government worked and is still working with international organizations and industry bodies to address the current issues and provide a clear regulatory framework and guidelines in order to promptly reach its objective of providing everyone with access to telecommunications.

3.3.2 Post-reform Situation

In 2013, the new telecommunications law was signed into law for the industry. In this process, PTD is responsible for providing advice to the Ministry and carrying out regulatory procedures in the sector.

The procedural interventions could be on following aspects:

(a) Encourage private sector participant to improve current regulation
(b) Develop future national plans and policies
(c) Financial development on subsidies, taxes or grants
(d) Define Universal Service Obligations (USO) to encompass broadband services
(e) Redirect Universal Service Fund (USF) to enable rural or uncovered areas in the country

The most important key reform in Telecommunication Law is the decision as to how to structure the market as the current market is a monopoly by the incumbent operator. The approval of the Act was followed by the issuance of two new nationwide telecommunications service licenses and the adoption of key regulations as mentioned below. In 2013, a licensing process that was transparent and competitive

was conducted with the assistance of international advisers. The Government set up an inter-ministry team “the Telecommunication Operator Tender Evaluation and Selection Committee” to oversee the selection of the licensees. To educate all interested parties, both local and foreign, the selection process began with the release of the invitation for the expression of interest (EOI) in January 2013. It received 91 expressions of interest on February 8, 2013, and issued pre-qualification criteria to all interested parties on February 21, 2013. From a long list of 22 companies that submitted their documents, a total of 12 organizations were prequalified on April 11, 2013. The Ministry of Communications and Information Technology (MCIT) issued a detailed information memorandum, bidding documents, and a draft License to the 12 pre-qualified bidders. On June 27, 2013, two bidders were chosen through a competitive process out of eleven who submitted proposals. Telenor from Norway and Ooredoo from Qatar were selected and they received their operating licenses early in the year 2014.

The Telecommunications Act makes it clear that an independent regulator, the MTC, must be established by 2015. Additionally, it gives the option to create alternative methods, such as the creation of a universal service fund (USF), to carry out universal service commitments. The transitional plans are for the current Post and Telecommunications Department (PTD) of the MCIT, which recently assumed regulatory responsibilities from MPT to act as the regulator. These responsibilities include numbering and spectrum planning. PTD recently received assistance from the Public Private Infrastructure Advisory Facility (or PPIAF) of the World Bank in order to create a roadmap for the operational sector, set up a process for developing regulations, and create and promulgate crucial rules on licensing, competition, access, spectrum, and numbering that will allow MCIT to address key barriers to fair competition. Public consultations on the above-mentioned five key regulations have been held and the regulations were finalized within January 2014.

During the following 5 years, the market structure in Myanmar changed from a monopoly into a multi-operator environment. The PTD is in the process of transitioning into an independent telecommunications regulator, MTC. In 2015, either the Telecommunications Law will be amended to create the MTC, or new legislation that creates the regulator specifically will be approved. The existing Telecommunications Law mentions the formation of MTC, but it doesn't go even further into depth. The state-owned company MPT will be privatized after being

reorganized into a business and operated under the Companies Act. The ministry will be responsible for ICT sector policy-making and will be the key line ministry that supports the implementation of e-Government initiatives in Myanmar.

Myanmar's ICT regulatory framework is still in development and is largely based on the UN Model Law on Electronic Commerce and the UN Model Law on Electronic Signatures. However, the country does not currently have explicit privacy, right to information, or cybercrime legislation in place. The Myanmar Computer Emergency Response Team is responsible for handling cyber security issues. The recently-approved Telecommunications Act has streamlined the import of communications equipment, and import permits will be required only for a notified set of equipment.

The MCIT and PTD face the mammoth challenges of institution building and establishing the regulatory regime for a liberalized telecommunications sector. The government is fully aware of the necessity to increase PTD's capability to regulate a market that is very competitive. The government must also address issues including infrastructure sharing, universal service, tariff regulation, service quality control, and licensing compliance management, among others. Further, capacity building for the implementation of the regulatory framework also needs to be completed.

There is agreement among top government officials that reforming MPT is a priority in order to improve the telecommunications sector's performance and prevent market distortions. Under the Telecommunications Act, MCIT retains policy-making responsibility, but this may be viewed by new operators as being indistinguishable from MPT. MPT has served as MCIT's primary advisor on technical aspects of policy issues, and MCIT is accountable to the government for MPT's revenue, which may result in policy distortions in MPT's favor. So, policy and regulatory support (particularly capacity building) are needed for MCIT and PTD to perform the policy-making and regulatory functions independently of MPT.

The MPT reform will make MPT more financially self-sufficient and provide it with administrative autonomy so it can compete with commercial operators in the dynamic multi-operator environment. This will allow the government to conduct its policymaking operations more effectively. The licensing of new operators in the market reinforces the need to establish a level playing field, where MPT's operations are subject to regulation by PTD in the same manner as other private operators. Toward this objective, MPT received a license to operate under the new

Telecommunications Act. To maintain its pro-competitive behavior in the market, MPT must undergo restructuring, which is an anticipated imperative for its pro-competitive behavior in the market. In the meantime, MPT also sought an international operating partner.

MCIT also acknowledges that despite the market competition, some distant locations in the nation will not obtain services since it will not be financially viable for operators to do so. The telecommunications law encourages (1) the development of telecom networks and services to promote widespread availability throughout the nation of telecommunications services into the underserved areas of the country; and (b) the establishment of various mechanisms to fulfill the telecommunications sector's universal service objectives, including establishing a USF.

3.4 Situation of Telecommunications Services in Myanmar

In accordance with the Telecommunications Rules and Regulations currently used in Myanmar, after the Telecommunications Law was enacted in 2013, Nationwide Telecommunications Service Licenses were granted to two foreign operators and two local operators. The two foreign operators are Norway's Telenor and Qatar's Ooredoo. The two local operators are Myanma Posts and Telecommunications (MPT) which is in joint operation with Japan's KDDI Summit Global Myanmar (KSGM) and Telecom International Myanmar (brand name Mytel) which is a consortium of Myanmar and Vietnam's Companies.

Five years after the government's liberalization in Myanmar's telecom sector, the four operators are competing fiercely. OOREDOO says it is providing "Myanmar's fastest mobile network", while ATOM uses the phrase "the nation's largest network".

Both MPT and Mytel are striving to improve Myanmar's telecommunications landscape, with MPT "Moving Myanmar Forward" and Mytel aiming to provide the "best service possible". Due to the great competition and massive investment, Myanmar telecommunications network coverage has improved very much indeed and users can enjoy the lowest data rates in Southeast Asia.

A SIM card from Myanmar Posts and Telecommunications (MPT), a state-run monopoly, cost US $1,500 in 2010. MPT and its competition offer products them for $1, and according to the International Telecommunication Union, the rate of SIM card penetration in 2018 was 114 percent. One GB of data often costs less than 70 US

cents, making Myanmar one of the most cost-effective locations in Asia to use a phone. In a classic case of technical leapfrogging, it only took a few years to go from essentially no phones to mostly smartphones.

Since two new operators, nationwide telecommunications license holders, from overseas launched five years ago, Myanmar's telecommunications sector has grown at a rate that once seemed impossible. The rising demand of telecom solutions in Myanmar have also resulted in an influx of many local and foreign companies providing the telecommunications services. In fact, there are more than 200 licensed companies operating in Myanmar.

Table (3.1) Numbers of Local and International Companies in the Telecom Industry

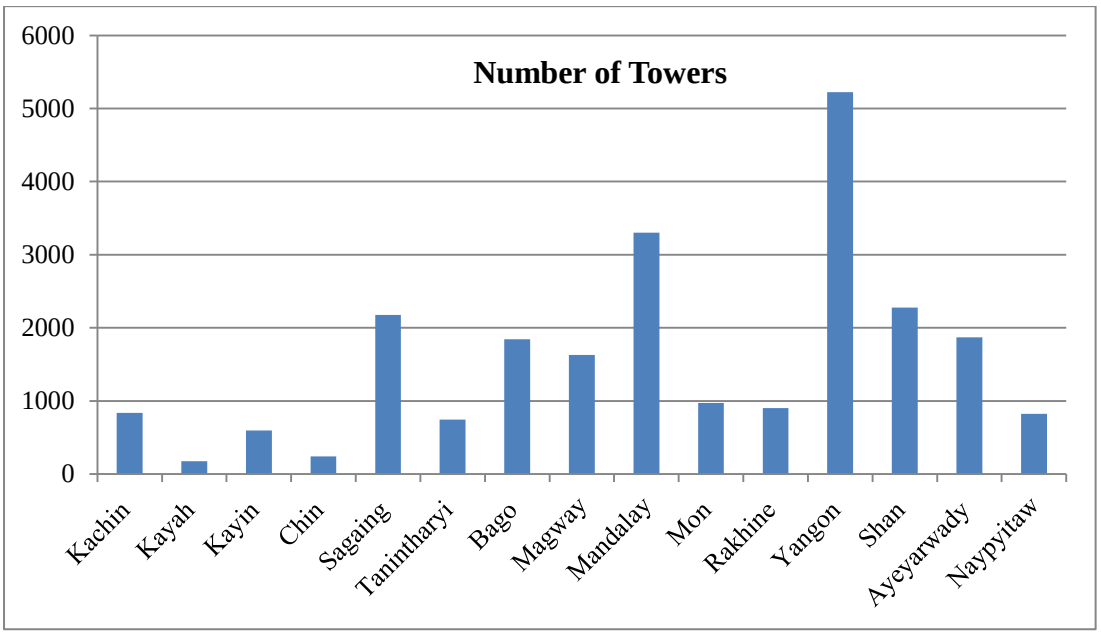
Sr. No.	Types of License	Local Companies	International Companies	Total
1	Nationwide Telecommunications License	2	2	4
2	Network Facilities Services License (Individual)	46	26	72
3	Network Service License	14	4	18
4	Network Facilities Services License (Class)	44	23	67
5	Application Service License	33	11	44
Total		**139**	**66**	**205**

Source: Ministry of Transport and Telecommunications (2020)

Application Service Licensees providing public payphone services, public switched data services, opt-in audio text hosting and directory services, internet service provider, messaging, private line voice and/or data and value-added services are all permitted for licensees to offer. Network Service Licensees can provide the services such as resale of wire line connectivity services, resale of terrestrial wireless connectivity services, international and domestic network transport and switching services, resale of international gateway services and any telecommunications services authorized by application service license.

Network Facilities Services (Class) Licensees have the right to provide construct, deploy and maintain passive telecommunications network infrastructure and to lease such infrastructure to an NFS (I) Licensee. An NFS(C) Licensee is not prohibited from leasing its infrastructure to a single business, to several entities on a shared basis, or to third-party Non-Licensees as long as such leasing is allowed under Union of Myanmar laws and regulations. They can also construct telecommunications network and are allowed in the self-provision of telecommunications services used solely for internal communications that are limited to network facilities and telecommunications services that only permits internal/intra-organizational communications and does not provide any interconnection with any other network. Such licensees can construct towers necessary for providing telecommunications services. Now there are more than 200,000 towers in the country built by the network facilities services (class) license holders and operators.

Figure (3.2) Number of Towers in States and Regions



Source: Ministry of Transport and Communications (2020)

Network Facilities Services(Individual) Licensees are able to engage in the services such as constructing, maintaining and operating network facilities, leasing all or part of the licensee's network facilities and capacity to an NS Licensee or AS licensee and providing any type of public or private telecommunications services whether on an international or national level, to the public and /or to another licensee

holding a valid NS or AS License but not the services that can be provided by Nationwide Telecommunications License Holders.

Nationwide Telecommunications Licensees can provide all kinds of telecommunications services with the spectrum assigned to them. Nationwide telecommunications license holders are Myanma Posts and Telecommunications (MPT), Telenor Myanmar Limited (TML), Ooredoo Myanmar Limited (OML) and Telecom International Myanmar Limited with brand name 'Mytel'. Investments in the Myanmar mobile telecom industry are already taking place amongst the top four telecom companies. In Telenor and Ooredoo's case, ever since their entry in 2014, they've invested more than US$2billion in the Myanmar mobile telecom industry. Similarly, MPT have pledged to invest US$2billion and cooperate with Japan's KDDI Corporation and Sumitomo Corporation over the span of ten years to ensure excellent telecom services.

As a result of this, Myanmar mobile operators are pushing down the price of their phone data packages to capture market share. For instance, in May 2017, the price for internet data connection was about US$95 per month for 2mbps and a US$250 set up fee. After one year, customers now only pay approximately US$18 per month for 2mbps and a US$90 set up fee, whereas customers who sign up for a six-month contract pay no set up fee. Customers not only can expect to pay lower prices for the same services offered before, but also get better telecom quality and services as every Myanmar mobile operator improves their offerings to stay competitive. Due to the strong competition among the operators and the telecommunications network coverage defined by the agreement between the Nationwide Telecommunications License Holders and the government, now over half of the geographic area of the country has been covered with the telecommunications services.

Table (3.2) Number of Active Mobile Subscribers by States and Regions

No.	State/Region	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1	Kachin	1,187,532	1,762,730	2,177,592	1,942,428	2,714,680
2	Kayah	109,691	248,331	520,524	415,125	587,562
3	Kayin	393,519	1,029,040	1,349,879	1,318,357	1,903,433
4	Chin	37,119	250,800	523,789	366,419	524,634
5	Mon	1,905,381	1,995,616	2,198,847	2,122,316	3,226,918
6	Rakhine	952,871	1,536,884	1,696,158	1,579,097	2,489,714
7	Shan	2,742,596	4,223,904	4,994,217	4,635,761	5,945,192
8	Sagaing	3,246,191	4,886,791	5,886,392	4,727,795	7,180,782
9	Mandalay	5,478,156	6,944,129	8,050,447	7,683,433	11,391,539
10	Magway	2,645,393	4,101,798	3,338,109	4,787,711	9,874,810
11	Bago	2,979,204	3,774,206	4,083,971	4,035,269	6,353,289
12	Yangon	10,082,164	12,431,741	12,957,184	12,104,754	17,134,860
13	Ayeyarwaddy	3,022,161	4,471,635	4,944,504	4,511,993	6,471,729
14	Tanintharyi	877,899	1,241,424	1,369,492	1,322,087	1,867,204
15	Nay Pyi Taw	1,437,860	1,687,216	1,868,328	1,290,873	1,887,047
	Total	**37097737**	**50586245**	**55959433**	**52843418**	**79553393**

Source: Ministry of Transport and Communications (2020)

According to the data shown in Tables (3.3) and (3.4), the number of active mobile subscribers in Myanmar before the 2013 telecommunication liberalization was only 6.7 million. Now that number has risen to over 37 million in 2015-2016, a very sharp increase due to the telecommunications sector reform. The number of active subscribers reached over 79 million at the end of 2019–2020.

For the Yangon Region, there were 161.000 mobile phone users in Myanmar per 100 people in 2018. This indicates a decline from the prior figure of 172.000 for

2017. Yangon Region data is updated annually, with an average of 166.500 numbers from March 2017 to 2018, with 2 observations. Users of mobile phones in Myanmar: per 100 Population: Area around Yangon. A record low of 161.000 numbers was reached in 2018 when the statistics, which peaked in 2017 at 172.000 numbers, plummeted to that level.

CHAPTER IV
SUVERY ANALYSIS

4.1 Survey Profile

The study was conducted in the areas of Thaketa Township.

Thaketa Township is located in the eastern part of Yangon, Myanmar, between longitude 96 (degree) 13’ East and Longitude 16 (degree) 46’ West. The Township contains 19 wards, and shares borders with Thingangyun Township in the north west, the Bago River in the east, and Dawbon Township in the south. The Pazundaung Creek flows through the township. Thaketa Township established in 1959, is primarily made up of working-class and middle-class neighborhoods. It has a population of 221,314 people, with 48.6% male residents and 51.4% female residents, indicating that women outnumber men. Thaketa Township's postal codes are 11231, 11232, and 1 (mobile 80, 99).

4.2 Survey Design

In this thesis was used to the descriptive method was based on primary and secondary data. A simple random sampling method was used and select a sample size of 200 respondents to collect primary data with a structured questionnaire. The questionnaire contains two sections, the first section for the demographic characteristics of the respondents and the second section for the research questions on price, service quality, network quality, and social lifestyle. In the questionnaire, a five-point Likert scale was used to assess the level of the respondent's perception of the different items on the aforementioned particulars.

4.3 Survey Results

This section presented the findings linked to the classification of respondents' demographic characteristics and their preference for a primary telecommunications service provider in terms of the aspects of price, service quality, network quality, and social lifestyle, that influence their decision. The following Table classifies the

respondents by types of gender, age, level of education, monthly income, and occupation.

Table (4.1) Demographic Characteristics of Respondents

Sr. No.	Variable	Frequency	Percent
1	**Gender**		
	Male	71	35.5
	Female	129	64.5
2	**Age**		
	Less than 20	8	4.0
	21 to 30	73	36.5
	31 to 40	67	33.5
	41 to 50	30	15.0
	Above 50	22	11.0
3	**Level of Education**		
	Primary School	2	1.0
	Middle School	6	3.0
	High School	25	12.5
	College	6	3.0
	University	159	79.5
	Other	2	1.0
4	**Monthly Income**		
	Less than 200,000 MMK	87	43.5
	200,001 to 300,000 MMK	96	48
	300,001 to 400,000 MMK	11	5.5
	400,001 to 500,000 MMK	2	1.0
	Above 500,000 MMK	4	2.0
5	**Occupation**		
	Government Staff	163	81.5
	Company Staff	7	3.5
	Self-Employed	13	6.5
	Dependent	8	4.0
	Other	9	4.5

Source: Survey Data (2022)

The respondents' demographic details are shown in Table (4.1), 35.5% of the 200 respondents are men, while 64.54% are women. This shows that the study contains more female respondents. The age distribution of the respondents, ranges from 20 to 51 years and above, with five different groups for all the age intervals. Most of the respondents - 36.5% fall within the age group of 20 to 30 years, followed by 33.5% for the 31- 40 years age group. The age group of 41–50 records 15%, with the age group 51 and above at 11%. The smallest amount less than $20 is 4%. According to this survey, the major age group of respondents is 20–30, stating that they use telecommunications services more than people of other age groups.

On the basis of the educational qualifications of the respondents, 79.5% have completed a university education, 3% have completed a college education, 12.5% have completed high school, 3% have completed middle school, and 1% have completed primary school, with another 1% having other qualifications. People in high school and postgraduate education use more telecommunications services, according to this survey.

According to the survey data, 43.5% of respondents earn less than 200,000 Kyats. 48% of respondents earn between 200,000 and less than 300,000 kyats. 5.5% of respondents earn between 300,000 and 400,000 kyats. 1.0% earn between 400,000 and 500,000 kyats. 2.0% earn 500,000 kyats and above. It can be found that most of the respondent's income per month is between 200,000 and 300,000 Kyats. According to this survey, the majority (48% of respondents) earn between 200,000 and 300,000 kyats.

It can be found that 81.5% of the respondents are government staff; 3.5% of the respondents are a company/private staff; 6.5% are self-employed workers; 4.0% are dependent, and the other 4.5% of the respondents belong to other professions. According to this survey, government and company employees are the major respondents.

Table (4.2) Choice of Main Telecommunications Service Provider

Sr No	Operator	Frequency	Percentage
1	MPT	123	61.5
2	ATOM	36	18.0
3	Ooredoo	23	11.5
4	Mytel	18	9.0
Total		**200**	**100**

Source: Survey Data (2022)

As shown in Table (4.2), over half, or 61.5%, of the sample population chose MPT as their main telecommunications service provider. Of the remaining respondents, 18% are ATOM users, and 11.5% are Ooredoo users. The remaining 18 respondents are Mytel users, indicating that only 9% use Mytel.

The findings showed that most users preferred to use MPT's services in the 200-sample size. The majority of respondents mentioned choosing cheaper data packages, better voice calls and call quality, and better network quality and service as the factors that influenced their choice of the primary operator.

Table (4.3) Reasons for Choosing Main Telecommunications Service Provider

Sr. No.	Variable	Frequency	Percent
1	Price	60	30
2	Service Quality	78	39
3	Network Quality	50	25
4	Social Lifestyle	12	6
Total		**200**	**100**

Source: Survey Data (2022)

Table (4.3) shows that over one-fourth, or 39%, of the sample population, chose their main telecommunications service provider because of the service quality. 30% of the respondents indicated that the reason for choosing the main telecommunications service provider was the price, and 25% said it was network quality. The remaining 6% choose their main telecommunications service provider because of their social lifestyle (recommendations of family and friends). They chose

MPT as the main service provider because MPT provided clear guidelines on their products, customer care service was good, customer care service agents treated their users courteously and with respect, and they do not discriminate against their users. In the telecommunications service industry, recommending products to family, friends, and relatives is a type of social lifestyle.

Table (4.4) Duration of Using Main Telecom Service Provider

Sr. No.	Variable	Frequency	Percent
1	Less than 1 year	13	6.5
2	1 to 5 years	96	48.0
3	6 to 9 years	58	29.0
4	Above 10 years	33	16.5
Total		**200**	**100**

Survey Data (2022)

According to Table 4.4, nearly half of the sampled population, or 48%, has been an MPT user for 1–5 years, 29% for 6–9 years, 16.5% for over 10 years, and only 6.5% for less than one year. 48% of respondents answered their mobile phone for 1 to 5 years due to their age group (20-30).

4.4 Analysis of Factors Affecting User's Choice on Telecommunications Service Provider

Factors that affect users' choice of the telecommunications service provider include price, service quality, network quality, and social lifestyle.

4.4.1 Price

The effect of price on the choice of the telecommunications service provider is measured by 8 items. The rating is made on a five-point Likert scale representing 1= Strongly Disagree (SD), 2= Disagree (D), 3= Neutral (N), 4= Agree (A) and 5= Strongly Agree (SA).

Table (4.5) Factors of Price on Choice of Telecommunications Service Provider

Sr. No.	Item	SD	D	N	A	SA	Total	Mean
1	By using services of this mobile operator, I am getting my money's worth.	3	25	66	100	6	200	3.41
		1.5	12.5	33.0	50.0	3.0	100	
2	The prices of voice calls are cheap.	3	20	66	102	9	200	3.47
		1.5	10.0	33	51.0	4.5	100	
3	The prices of SMS messages are cheap.	5	32	56	98	9	200	3.37
		2.5	16.0	28.0	49.0	4.5	100	
4	The prices of Data Package are cheap.	9	34	57	91	9	200	3.29
		4.5	17	28.5	45.5	4.5	100	
5	Any increased price would hinder my purchase intentions of either data or voice calls.	5	10	31	106	48	200	3.91
		2.5	5.0	15.5	53.0	24.0	100	
6	I will switch to other mobile services providers whenever the price of any product or service I use increases.	10	14	43	92	41	200	3.70
		5.0	7.0	21.5	46.0	20.5	100	
7	The price plans are simple and easy to understand.	3	22	39	125	11	200	3.60
		1.5	11.0	19.5	62.5	5.5	100	
8	I like this mobile operator as it meets my needs for a reasonable price.	1	17	62	102	18	200	3.60
		0.5	8.5	31.0	51.0	9.0	100	
Overall Mean								**3.50**

Source: Survey Data (2022)

According to Table (4.5), the majority of the respondents agree very well that “Any increased price would hinder my purchase intentions of either data or voice calls”. It is the highest mean score of 3.91 compared with other items. A total mean score of 3.70 agrees that “I will switch to other mobile services providers whenever the price of any product or service I use increases”. It is the second-highest mean score with other items.

The majority of respondents agree that price is important when selecting a telecommunications service provider, while those with the lowest mean score—3.29—agree that "the price of data packages are reasonable” The overall mean score for the price factor is 3.50.

4.4.2 Service Quality

The effect of service quality on the choice of the telecommunications service provider is measured by 8 items. The rating is made on a five-point Likert scale representing 1= Strongly Disagree (SD), 2= Disagree (D), 3= Neutral (N), 4= Agree (A) and 5= Strongly Agree (SA).

Table (4.6) Factors of Service Quality on Choice of Telecommunications Service Provider

Sr. No	Item	SD	D	N	A	SA	Total	Mean
1	The company provides clear guidelines on their products and services.	3	16	44	128	9	200	3.62
		1.5	8.0	22.0	64.0	4.5	100	
2	The customer care services are good, they offer readily available help.	3	17	51	120	9	200	3.58
		1.5	8.5	25.5	60.5	4.5	100	
3	Customer care service agents resolve my issues on time and provide feedback.	4	36	47	106	7	200	3.38
		2.0	18.0	23.5	53.0	3.5	100	
4	Customer care service agents are knowledgeable about the products and services on offer	2	15	57	119	7	200	3.57
		1.0	7.5	28.5	59.5	3.5	100	
5	Customer care service agents treat their users courteously and with respect.	2	15	42	130	11	200	3.67
		1.0	7.5	21.0	65.0	5.5	100	
6	Customer care service agents listen to their users and they empathize	5	18	53	116	8	200	3.52
		2.5	9.0	26.5	58.0	4.0	100	
7	Customer care service agents do not discriminate their users.	2	11	44	131	12	200	3.70
		1.0	5.5	22.0	65.5	6.0	100	
8	I feel that I can rely on this mobile operator to serve me well.	1	15	59	112	13	200	3.61
		0.5	7.5	29.5	56.0	6.5	100	
Overall Mean								**3.58**

Source: Survey Data (2022)

According to Table (4.6), it is found that the majority of the respondents agree very well with the fact that "customer care service agents do not discriminate against their users." It has the highest mean score (3.7) compared with other items. The

minority of the respondents agree that "customer care service agents resolve my issues on time and provide feedback." It has the lowest mean score of 3.38 compared with other items. It is found that service quality plays an important role in the choice of telecommunications service provider by users, and most of them believe that customer service agents treat every user equally.

The overall mean score for the service quality factor is 3.58.

4.4.3 Network Quality

The effect of network quality on the choice of the telecommunications service provider is measured by 8 items. The rating is made on a five-point Likert scale representing 1= Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A) and 5 = Strongly Agree (SA).

Table (4.7) Factors of Network Quality on Choice of Telecommunications Service Provider

Sr. No	Item	SD	D	N	A	SA	Total	Mean
1	My mobile operator provides sufficient geographical coverage	1 0.5	24 12.0	36 18.0	131 65.5	8 4.0	200 100	3.61
2	My mobile operator provides good network coverage inside the buildings	3 1.5	20 10.0	55 27.5	114 57.0	8 4.0	200 100	3.52
3	I like the network coverage since it's effective for voice, data, graphics, video, music.	2 1.0	17 8.5	67 33.5	107 53.5	8 4.0	200 100	3.52
4	I do not experience drop calls or silent calls.	9 4.5	60 30.0	41 20.5	84 42.0	6 3.0	200 100	3.10
5	I get clear and undisturbed voice quality.	3 1.5	30 15.0	56 28.0	104 52.0	7 3.5	200 100	3.41
6	Voice call quality is an important factor for me in my choice of mobile network operator.	2 1.0	5 2.5	17 8.5	129 64.5	47 23.5	200 100	4.10
7	Download speed is good enough.	5 2.5	34 17.0	47 23.5	102 51.0	12 6.0	200 100	3.41
8	Good download speed is more important than voice call quality for me in my choice of mobile network operator.	4 2.0	37 18.5	48 24.0	81 40.5	30 15.0	200 100	3.48
Overall Mean								**3.51**

Source: Survey Data (2022)

From the survey data analyzed in Table (4.8), the majority of the respondents mostly agree that "Voice call quality is an important factor for me in my choice of the mobile network operator." It has the highest mean score (4.1) compared with other items. The minority of the respondents agree that "I do not experience dropped or silent calls." It has the lowest mean score (3.1) compared with other items. It has been discovered that when choosing a telecommunications service provider, users consider the quality of voice calls. The overall mean score for the network quality factor is 3.51.

4.4.4 Social Lifestyle

The result of social lifestyle on the choice of the telecommunications service provider is measured by 8 items. The rating is made on a five-point Likert scale representing

1= Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A) and 5 = Strongly Agree (SA).

Table (4.8) Factors of Social Lifestyle on Choice of Telecommunications Service Provider

Sr. No.	Item	SD	D	N	A	SA	Total	Mean
1	I believe that my choice of mobile service provider depends on the class/ group that I relate with (e.g. family members, youth, business owners, students)	3	18	46	117	16	200	3.63
		1.5	9.0	23.0	58.5	8.0	100	
2	I will purchase airtime regardless of my social group.	8	38	62	84	8	200	3.23
		4.0	19.0	31.0	42.0	4.0	100	
3	Prepaid services are the best for me.	4	27	49	94	26	200	3.56
		2.0	13.5	24.5	47.0	13.0	100	
4	Postpaid services are the best for me.	9	27	64	87	13	200	3.34
		4.5	13.5	32.0	43.5	6.5	100	
5	Free on-net calls are key in my decision to select the mobile operator to use.	1	5	21	138	35	200	4.01
		0.5	2.5	10.5	69.0	17.5	100	
6	I will consider the calling rates before making calls to avoid any disconnections	6	15	46	107	26	200	3.66
		3.0	7.5	23.0	53.5	13.0	100	
7	The mobile service provider is used by my family/friends	1	12	19	144	24	200	3.89
		0.5	6.0	9.5	72.0	12.0	100	
8	I like the mobile service provider because it is used by many other people, popular and famous.	0	9	55	114	22	200	3.75
		0	4.5	27.5	57.0	11.0	100	
Overall Mean Value								**3.63**

Source: Survey Data (2022)

According to Table (4.9), it can be concluded that the majority of the respondents mostly agree that "free on-net calls are key in my decision to select the mobile operator to use." It has the highest mean score compared with other items. The minority of the respondents agreed that "I will purchase airtime regardless of my social group." It has the lowest mean score (3.2) compared with other items. It has been discovered that free internet calls influence how users select their telecommunications service provider. The overall social lifestyle score for the price factor is 3.63.

4.4.5 Factor Affecting User's Choice on Main Telecommunications Service Provider

As a result, there were 200 respondents who had chosen MPT as their main telecommunications service provider, ATOM as a second, Ooredoo as third, and Mytel as fourth, based on the overall mean value of price, service quality, network quality, and social lifestyle of users.

Table (4.9) Overall Mean Values

Sr. No.	Factors	Mean
1	Price	3.5437
2	Service Quality	3.5812
3	Network Quality	3.5187
4	Social Lifestyle	3.6337

Source: Survey Data (2022)

According to Table 4.10, the overall mean value of factors affecting the user's choice of a telecommunications service provider is nearly 4. It is shown that among the four factors, social lifestyle has the highest mean score, with a value of 3.6337. Service quality has the second-highest mean score of 3.5812. The overall mean score for the price is 3.5437. According to the results, network quality has the lowest mean score, with a value of 3.5187. It can be concluded that people consider network quality the least important of the factors affecting their choice of telecommunications service provider.

Social lifestyle has the highest mean score with a value of 3.633, and social style was found to be the factor that was considered least by users in their choices. However, it was discovered that MPT was the only provider chosen by users due to their social lifestyle, and no other service provider was chosen. As a result, the conclusion that a user's social life influences their choice can be drawn, and they should choose MPT because their families, friends, and relatives do. However, no correlation was discovered between the user's major telecommunications service provider choice and the rationale for that choice.

Service quality has the second-highest mean score of 3.5812. They selected MPT as their primary service provider because MPT had clear instructions on their product, had good customer service, treated their customers politely and with respect, and did not discriminate against them.

The overall mean score for the price is 3.5437, and choosing more affordable data packages, phone calls, SMS messages, and fair user prices were indicated by the majority of respondents as reasons influencing their decision regarding their primary operator.

Users consider good network coverage, download speed, and voice call quality to be indicators of service quality, and network quality has the lowest mean score with a value of 3.5187. As a result, it can be said that users' decisions about telecommunications service providers were primarily influenced by network quality, and most users agree that customer care representatives treat all customers fairly.

Lastly, even though there were no statistically significant links between the user's profession and their preferred telecommunications provider, government employees primarily utilize MPT. It was also determined what relationship existed between the user's choice of MPT as their primary telecoms service provider and the reason for that choice. The primary factor influencing the user's decision regarding their primary telecom service provider is found to be service quality.

CHAPTER V
CONCLUSION

5.1 Findings

According to the demographic characteristics of 200 respondents, the female percentage in the study sample is greater than the male percentage. The results show that the age groups (20 to 30) and (31 to 40) are dominant, representing more than 69 percent of the study. The results show that well over half of the respondents are university graduates. In terms of income, one-third of respondents earn less than 200,000 kyats per month, while nearly half earn between 200,000 and 300,000 kyats per month. Regarding the occupation, the data analyzed show that three-fourths of the respondents are working as government staff. With regard to the choice of main telecommunications service provider, over 60% of the sample population uses MPT, 18% use ATOM, 11% use Ooredoo, and the remaining 9% use Mytel. From the responses of the sample population, it can be seen that users consider service quality to be the most important factor in their choice of the service provider. Price is the second most important consideration, network quality is regarded as being less important than price, and social lifestyle is the factor that is least likely to affect the consumer's choice of a telecommunications service provider.

For the duration of the use, half of the sampled populations have been using their main telecommunications service provider for 1-5 years.

The factors influencing users' choice of telecommunications service provider have a mean value that is almost 4. Social lifestyle has the highest mean score of the four factors, with a value of 3.6337, as can be shown. The mean score for service quality is 3.5812, which ranks second highest. Price has an overall mean score of 3.5437. The results show that the network quality category has the lowest mean score, with a value of 3.5187. It can be inferred that, among the variables influencing a user's decision on a telecom service provider, network quality is regarded as the least important by consumers.

This study found that the respondents take all factors into account in their choice of telecommunications service provider, that service quality plays an important role in the choice of the telecommunications service provider by users, and that most of them believe that service agents treat every user equally. Most of them agree that price was very important in choosing the telecommunications service operator. Most say that any price increase would stop them from buying either data or voice. This study found that users considered network quality when choosing their telecommunications service provider, and voice call quality was also important to them. It was also discovered that the user's social lifestyle influenced their choice of telecom service provider, and free on-net calls and popularity among their families, relatives, and friends influenced their choice of the telecommunications service provider.

5.2 Recommendation

Based on the findings of the study, it is suggested to the operators that their service quality in dealing with the users is very important and should be improved to attract users. They should train their customer service representatives to treat their customers fairly and listen patiently to their complaints. They should also be knowledgeable enough about their products to explain them well to the users and convince them they can rely on this service operator. The respondents also indicated that price played an important role in their choice, and therefore, the operators should take great care in setting the pricing structure for their voice package and data package plans, as any increase in price would affect their choice of telecommunications service provider. It is recommended to the government and the telecommunications regulator that policies and measures be put in place to allow users to enjoy affordable telecommunications services.

MPT has several advantages, including being highly portable, user-friendly, and trustworthy; being customers' or users' preferred products; having reasonable prices; good quality; and having a good brand image for social lifestyles. MPT should maintain its brand name and quality in order to earn the trust of its customers.

With its cheaper and better mobile phone service in Myanmar, ATOM was introducing some competition. As a recommendation, ATOM ought to have name extensions and social media marketing.

MyTel offered free call deals or promotions, the most affordable data packages, the fastest internet speed, and free SMS and on-net calls. However, it is suggested that they maintain their brand reputation and floor pricing guidelines.

OOREEDO had dedicated internet access, customizable bandwidth, a secured service agreement, and committed support for business needs. It is suggested that it upgrade its infrastructure, adapt to changing customer needs, and expand its service.

According to the respondents' responses, network quality was considered important. Telecommunications service providers should therefore make great efforts to make the quality of their voice and data networks good. Their network should be accessible equally both inside and outside the buildings and cover a large geographical area of the country if they want a large subscriber base. Based on the findings, the government and regulators believe that telecommunications service providers should be instructed or controlled to provide good network quality not only in urban areas but also in the country's suburban areas. Free on-net calls, which are calls a subscriber makes to another subscriber of the same service provider, influence the user's decision. The service provider should provide cheap or free on-net calls. The popularity of the service provider also affects the users, and the provider should therefore promote it through advertisements on TV and other media.

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APPENDEX A

QUESTIONARIES

SECTION (A)

I. Socioeconomic and Demographic Characteristics

II. No	Variables	
1	**Gender**	
	Male	
	Female	
2	**Age**	
	Less than 20	
	21 to 30	
	31 to 40	
	41 to 50	
	Above 50	
3	**Level of Education**	
	Primary School	
	Middle School	
	High School	
	College	
	University	
	Other	
4	**Monthly Income**	
	Less than 200000 MMK	
	200001 to 300000 MMK	
	300001 to 400000 MMK	
	400001 to 500000 MMK	
	Above 500000 MMK	
5	**Occupation**	
	Government Staff	
	Company Staff	
	Self-Employed	
	Dependent	
	Other	

SECTION (B)

CHOICE AND REASONS OF TELECOMMUNICATIONS SERVICES

I. Choice of Main Telecommunications Service Provider

No	Operator	
1	MPT	
2	ATOM	
3	Ooredoo	
4	Mytel	

II. Reasons for choosing Main Telecommunications Service Provider

No	Variables	
1	Price	
2	Service Quality	
3	Network Quality	
4	Social Lifestyle	

III. Duration of Using Main Telecom Service Provider

No	Variables	
1	Less than 1 year	
2	1 to 5 years	
3	6 to 9 years	
4	Above 10 years	

SECTION (C)

FACTORS AFFECTING USER'S CHOICE OF TELECOMMUNICATIONS SERVICE PROVIDER

I. Factors of price on choice of telecommunications service provider

No	Items	SD	D	N	A	SA
1	By using services of this mobile operator, I am getting my money's worth.					
2	The prices of voice calls are cheap.					
3	The prices of SMS messages are cheap.					
4	The prices of Data Package are cheap.					
5	Any increased price would hinder my purchase intentions of either data or voice calls.					
6	I will switch to other mobile services providers whenever the price of any product or service I use increases.					
7	The price plans are simple and easy to understand.					
8	I like this mobile operator as it meets my needs for a reasonable price.					

II. Factors of service quality on choice of telecommunications service provider

No	Items	SD	D	N	A	SA
1	The company provides clear guidelines on their products and services.					
2	The customer care services are good, they offer readily available help.					
3	Customer care service agents resolve my issues on time and provide feedback.					
4	Customer care service agents are knowledgeable about the products and services on offer					
5	Customer care service agents treat their users courteously and with respect.					
6	Customer care service agents listen to their users and they empathize					
7	Customer care service agents do not discriminate their users.					
8	I feel that I can rely on this mobile operator to serve me well.					

III. Factors of network quality on choice of telecommunications service provider

No	Items	SD	D	N	A	SA
1	My mobile operator provides sufficient geographical coverage					
2	My mobile operator provides good network coverage inside the buildings					
3	I like the network coverage since it's effective for voice, data, graphics, video, music.					
4	I do not experience drop calls or silent calls.					
5	I get clear and undisturbed voice quality.					
6	Voice call quality is an important factor for me in my choice of mobile network operator.					
7	Download speed is good enough.					
8	Good download speed is more important than voice call quality for me in my choice of mobile network operator.					

IV. Effect of social lifestyle on choice of telecommunications service provider

No	Items	SD	D	N	A	SA
1	I believe that my choice of mobile service provider depends on the class/ group that I relate with (e.g. family members, youth, business owners, students)					
2	I will purchase airtime regardless of my social group.					
3	Prepaid services are the best for me.					
4	Postpaid services are the best for me.					
5	Free on-net calls are keys in my decision to select the mobile operator to use.					
6	I will consider the calling rates before making calls to avoid any disconnections					
7	The mobile service provider is used by my family/friends					
8	I like the mobile service provider because it is used by many other people, popular and famous.					