YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF APPLIED ECONOMICS

MASTER OF PUBLIC ADMINISTRATION PROGRAMME

A STUDY OF THE PARENTS' PERSPECTIVE ON THE

EFFECTS AND USAGE OF MOBILE PHONE

FOR CHILDREN

(CASE STUDY: HLEGU TOWNSHIP)

TIN CHO AYE

EMPA-68 (17th BATCH)

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Supervised by: **Submitted by:**

U Khun Maung Gyi   Tin Cho Aye

Associate Professor   Roll No- EMPA - 68

Department of Applied Economics   EMPA -68 (17th Batch)

Yangon University of Economics   2018-2020

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This is to certify that this thesis entitled "**A Study of the Parents' Perspective on the Effects and Usage of Mobile Phone for Children**", submitted as the requirements for the degree of Master of Public Administration has been accepted by the Board of Examiners.

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(Examiner)   (Supervisor)

Associate Professor   Associate Professor

Department of Applied Economics   Department of Applied Economics

Yangon University of Economics   Yangon University of Economics

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ABSTRACTS

Mobile phones and Technology are constantly evolving and becoming an essential part of our daily lives. In Myanmar, the number of mobile phones, internet and social media users is increasing in every year and it became a useful for everyone especially children. This study shows that the parents' perspective on the effects and usage of mobile phone for children. The study was conducted total 311 parents who live in Hlegu township, Yangon. The questionnaire is developed based on parents' knowledge and practice of mobile device. This study found that 64% of parents allow their children to use mobile phone. A total of 76.8 % of parents that they allow children to use mobile device for educational purpose and improvement in children education. However, the 67.5% parents mentioned that, it affect negatively for sleep-loss and the 40.5% of children have addicted on the use of mobile device for other matters.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

2G	Second Generation
3G	Third Generation
4G	Fourth Generation
AAP	American Academy of Pediatrics
APC	Aviation Public Communications
CDMA	Code Division Multiple Access
CSO	Central Statistical Organization
ETSI	European Telecommunications Standards Institute
GPS	Global Positioning System
GSM	Global System for Mobile (communications)
HD	High Density HEV light High Energy Visible light
IT	Information Technology
LEO	Low Earth Orbit
MCIT	Ministry of Communications and Information
MEC	Myanmar Economic Corporation
MOTC	Ministry of Transport and Communications
MPT	Myanmar Posts and Telecommunication
MTSO	Mobile Telephone Switching Office
PSTN	Public Switched Telephone Network
SIM Card	Subscriber Identify Module Card
SMS	Short Message Service
TFTS	Terrestrial flight telephone system
UNFPA	United Nations Population Fund,
WCDMA	Wideband Code-Division Multiple Access

CHAPTER I
INTRODUCTION

1.1   Rationale of the Study

Technology transmission are changing continually in the world. As technology becomes more innovative, the power of technology is not only good but also bad. In the past, landlines telephones (line phone) were a communication tool that people could use to communicate with each other and use that information in their lives.

The second generation of digital cellular technology was introduced in December 1991. Global System for Mobile Communications (GSM) is a standard digital cellular network protocol used in mobile devices such as mobile phones and tablets. And Code Division Multiple Access (CDMA), is a channel access method used in various wireless communication technologies and multiple access, allowing multiple transmitters to transmit information simultaneously over one communication channel. Later in 2001, the third generation was introduced based on the WCDMA (Wideband Code-Division Multiple Access) standard.

At the earlier time in the past, people can use line phone to make phone calls to others. The government supported line phone at many places such as market places and bus stops where some households also developed the small business of providing phone service by charging the caller based on the time of usage. However, the way of phone communication access has changed as the communication technology are moving up to a more modernized level and at current, people can access more than one mobile phone and with two registered sim cards in each phone. According to digital 2020 Myanmar, there were 68.24 million mobile phones have been connected in the mobile network.

The evolution of the technology is amazing. Twenty-Two million people in Myanmar are now social media users According to statistics, it showing that the number of users has increased by one million between 2019 and 2020, Source: Simon Kemp, 2020. However, there are also negative factors that people suffering from the modernized technology. Where some of the focus of mobile phone usage was on the

developmental works, however, it was observed that unintentionally, it also brought the negative effects on the children.

From the positive aspect, the improvement in communication via mobile phone contributing to the children's learning through social media. The learning applications like teaching with songs, programs that can be played with word pictures and learning programs that appropriate for each respective age groups can be easily installed in their mobile or computer for learning. On the other hand, mobile phones can be also used as a toy that parents do not need to train / guide to the children. Some children can use mobile phones effectively than their parents.

From the advancement in new technology, the standard of living of the people have improved and modernized high-rise buildings are gradually increasing in the urbanized cities and town, the consequence with overcrowding, lack of play space for children and more time requiring for child education are parallelly increasing as negative affect to the children as well. Parents are likely less to allow their children to play freely because the time are getting limited for them to monitor their children's to playing outside. Most of the time is spent on using electronic devices.

Further, the effects of radiation from electronic devices can cause physical harm to children's health, resulting in less active life, obesity, addiction, visual impairment, etc. We have seen and heard of the negative effects such as children tend to be dull when they are not talking or making relationship with other people. Today, the use of electronic devices by the children are one of the challenges in society. However, this is even worse at the situation that some children and parents are still not aware of the influence of these devices.

Where technological change has advantages and disadvantages, for the children they are at risk of being exposed to adult and violent content online. This makes children grow beyond their physical age and might have negative impact in their character, compromising on their moral values.

Children are also overwhelmed by technology, and adults are also using it without realizing the pros and cons. The extent of the impact is not only on urban families but also on rural families. So the study in this research was conducted in Hlegu Township to explored the effects and usage of mobile phone on the children.

1.2 Objectives of the Study

The first objective is to identify the mobile phone usage among young children in their life and the second is to analyze the parents' perspective on mobile phone usage and effects of children to become well-being

1.3 Method of Study

Quantitative case study research design and descriptive research method was used for this study. Primary data were collected by using structured questionnaire. The respondents are among those who live in Hlegu ,Township, Yangon. The study consists of 311 respondents who were selected through sampling. Secondary data used were collected from various sources including journals, articles, research papers and online sources.

1.4 Scope and Limitation of the Study

This survey was conducted in September, 2022. The study represents the 311 respondents from Hlegu Township, Yangon. Hlegu township is rural type and there have large migrant families stayed in it, so that data collection process have targeted. This research examines the current situation of 311 respondents on the effects and usage of mobile on the children and parent's perspective on it but was not covered for all Townships in Yangon.

1.5 Organization of the Study

The study is organized into five chapters. Chapter (1) have included introduction, rationale of the study, objectives of the study, method of the study, scope and limitation of the study, and organization of the study. Chapter (2) is literature review. Chapter (3) is the overview on mobile telecommunication in Myanmar. Chapter (4) analysis on survey data. Chapter (5) is conclusion which is included findings and recommendation

CHAPTER II
LITERATURE REVIEW

2.1   Mobile Phone Definition

Mobile phones are portable devices that connect to telecommunications networks to send and receive voice, video, or other data. Mobile phones are usually connected to the Public Switched Telephone Network (PSTN) that have two categories: the cellular system or global satellite-based telephony.

A mobile phone is a portable device that can be used by motorists and pedestrians. Communicating over radio waves allows considerable mobility within a defined coverage area. Coverage areas can range from a few cities blocks to hundreds of square kilometers. The first mobile and portable subscriber units for cellular systems were large and heavy. However, significant advances in component technology have significantly reduced the weight and size of portable transceivers.

For all mobile phone systems, the geographic area served by a cellular system is divided into smaller geographic areas or cells. Uniform hexagons are most commonly used to represent these cells in maps and charts. In practice, radio waves are not confined to hexagonal regions, so real cells are irregularly shaped. All communications with mobile or cellular devices within a particular cell are sent to the base station serving that cell.

Due to the low transmit power of battery-powered portable devices, a specific transmit and receive frequency assigned to one cell can be reused in other cells within a wider geographic area. Therefore, the spectral efficiency of the cellular system is increased by a factor equal to the number of times a frequency can be reused within the coverage area.

When a mobile device moves from one cell to another during a call, the central controller will automatically reroute the call from the old cell to the new cell without significant loss of signal reception. This process is called handover. Therefore, the Central Controller or Mobile Telephone Switching Office (MTSO) acts as an intelligent switch for the exchange and tracks the movement of mobile subscribers.

When the demand for radio channels within a particular cell increases beyond that cell's capacity (measured by the number of simultaneous calls it can support), the congested cell is "split" into smaller cells, each with its own base station. and central office. Control. The radio frequency allocations of the original cellular system are then rearranged to accommodate a large number of small cells.

The reuse of frequencies between non-contiguous cells and the splitting of cells as demand increases are concepts that distinguish cellular systems from other wireless telephone systems. This allows wireless service providers to serve metropolitan areas with hundreds of thousands of customers.

2.1.1 History of Cellular Systems

In 1964, Interconnection of mobile transmitters and receivers with the Public Switched Telephone Network (PSTN) began in the United States. Users who wanted to make calls from their mobile phones had to manually search for unused channels before making a call.

The user talked to mobile operator to provider for service and made a call over the Public Switched Telephone Network (PSTN). The radio connection was a simplex this can only speak one participant at a time and the direction of the call is controlled by a push-to-talk switch in the mobile handset.

This enabled full-duplex operation, auto-dial, and auto-channel searching. Originally 11 channels supported, an additional 12 channels became available in 1969. Due to the enhancement of improved mobile telephony service (IMTS) faced high demands for very limited channel resources within a given region to all users of the system.

Additionally, each base station antenna had to be placed on a tall structure and transmit at high power to cover the entire service area. Because of these high power requirements for all subscriber units in Enhanced Mobile Telephone Service (IMTS) systems have been motor-vehicle-based equipment with large battery storage batteries.

As a second approach, developed by a committee of the Telecommunications Industry Association (TIA) in 1988, active digital modulation and digital voice compression combined with time division multiplexing (TDMA). This also allowed three new voice channels instead of one advanced mobile phone system (AMPS) channel.

The third approach used a form of spread spectrum multiple access known as code division multiple access (CDMA). This, like original Telecommunications Industry Association (TIA) approach, combines digital audio compression with digital modulation

All these cellular systems with improved capacity were eventually deployed in the United States, but they were incompatible with each other and supported the older advanced mobile phone system(AMPS) standard rather than replacing it..

In the years that followed, many other cellular systems were developed and used in many other countries. All were incompatible with each other. In 1988, a group of national public telephone companies within the European Community introduced a digital global system for mobile communications called GSM. This is the first system that allows mobile phone users in one European country to use the same equipment in another European country. GSM quickly spread throughout Europe. Source: Borth, David E./2022

2.2   Type of Mobile Phone

A mobile phone, cellular phone, cellphone, handphone, or pocket phone, sometimes abbreviated simply as mobile phone, cell, or simply phone, is a device that makes and receives phone calls over a radio frequency link. Radio frequency links connect to the switching systems of mobile operators that provide access to the Public Switched Telephone Network (PSTN). In addition to telephony, digital mobile phones (2G) support a wide range of services, including: text messaging, MMS, email, internet access, near field communication (infrared, Bluetooth), business applications, video games, digital photography. Mobile phones that offer very advanced computing capabilities are called smartphones.

Mobile phone started from the early Zero Generation (0G), such as Bell System's mobile phone service and its superior mobile phone system successor. In the early 1980s, 1G was introduced as voice-only communication over "brick phones". Then, in 1991, improved 2G Short Message Service (SMS) and Multimedia Message Service (MMS) capabilities, allowing him to send and receive picture messages between phones. In 1998, 3G was introduced to increase data transfer speeds for video calls and Internet access.

4G was released in 2008 and provided other demand services such as gaming services, HD mobile TV, video conferencing and 3D TV. The 5G system is broadcast

communications and is the fifth era innovation standard for cellular systems, which cellular phone companies started conveying around the world in 2019, the arranged successor to the 4G systems which give network to most current cellphones.

Like its forerunners, 5G systems are cellular systems, in which the benefit range is separated into little topographical ranges called cells. 6G will mark the sixth era of wireless communication advancement to support cellular information systems. It is currently under development and is expected to be even more heterogeneous (even more diverse) than its predecessor, and expected to support applications beyond current mobile usage scenarios.

The biggest advantage of the new system is increased transmission capacity and faster download speeds. With increased transmission speeds, the new system will not serve mobile phones like existing cellular systems, but will also be used as a common internet service provider for portable laptops and desktop computers, and will connect to existing networks such as cable networks. Expect to compete with ISP. Also, new applications conceivable in the Internet of Things and machine-to-machine.

2.3   Improvement of Mobile Phone Technology

Mobile phone technology has improved significantly over time. Mobile phones, which were only for making calls on the go, have become interactive devices that can manage many aspects of people's lives. Not only have many features been added, but the original has also been improved.

Mobile phones are constantly being enhanced to add new features. Since its inception, it has provided text and image messaging capabilities, Internet access, and GPS-based navigation. Technically advanced features called applications have proven to be useful tools to assist wireless users in a myriad of day-to-day tasks. Not only the overall shape, but also the standard hardware functions such as the battery have evolved, and it has evolved into a device that is convenient to carry and can operate for a long time without charging.

Improvements in cellular technology have allowed to communicate and connect in ways that were not possible before. In addition to the social and economic benefits, new technology has helped increase personal security, helping mobile phone users in need easily access the resource programs to family, friends, service providers and communities. increase. The ability to quickly and easily contact emergency services using the features of the phone has saved many lives.

Simply put, mobile phones are used to keep in touch with others while on the move. However, with the development of technology, there has been rapid development of mobile phones. There are internet banking, paying for goods and services, staying connected with customers, sharing pictures and stories via social media, browsing the internet, navigating to specific locations and working outside the office.

a. Enhancement of Mobile Phone

The evolution of mobile phones and how this technology has changed over the decades and where it is today. In 1984, it was hard to believe that mobile phones could be so advanced and offer so many services. This was realized when the Motorola DynaTAC 8000x was first introduced in the market. Five years into the 90's Motorola released the MicroTAC 9800x. This much more portable device is designed to fit shirt pocket. This was the first phone of clamshell design that didn't require pressing a button when not in use.

In 1993, it released the Nokia 1011, the first GSM phone to use digital networks instead of analog. This allowed to use SMS text messaging, but it was not mainstream for several years. From 1998 to 2000, customizable skins, ringtones and games were introduced to the world. Mobile phones have become a highly desirable gadget, especially among teens. Certain characteristics of mobile phones have made them a fashion accessory.

In the early 2000s, Nokia's dominance began to wane as Sony Ericsson, LG, and Samsung joined the development of mobile phones and became major players in the market. Flip phones were common and the Samsung SGH-T100 used a dual screen design. The notifications have display without even opening the phone. At the moment, not only built-in cameras appeared, but also color screens. A WAP (Wireless Application Protocol)-enabled phone with access to a simplified version of the Internet.

In the 2010s, mobile phone technology was evolving faster than ever before. At the beginning of the decade, the market was dominated by phones such as the HTC (High Tech Computer Corporation) Droid Incredible, T-Mobile G2, BlackBerry Torch (with pullout keyboard), and Apple iPhone 4. Over the years, mobile phones have developed more and more features and now Samsung, Apple, Xiaomi, Oppo, Vivo, Realme, Motorola Mobility (Lenovo), Huawei, Transsion (Tecno,Itel) and Honor lead the market. Mobile phones are now used for almost everything from online banking to

paying bills to choosing restaurants. The increasing use of applications on smartphones contributes significantly to this.

Smart phone is now a GPS-enabled device that can used to check the emails, manage calendar for task schedule, play music, take reasonably good quality pictures, download content and a whole lot more activities. There are millions of apps that enable countless functions and features. Ordering and paying for goods and services online using only a phone is now a common practice.

The integration and improvement of information and communication technology has impelled the creation of an information society and a knowledge society, and has driven to a user-oriented development situated to a knowledge society, a user-centered society, a phase of social repetition, and a highlight of mass innovation, joint innovation, and open innovation. Over the utilization of high-coverage portable communication systems, high-speed wireless systems, and different kinds of mobile information terminals, the utilization of mobile technologies has opened up a huge space for mobile interaction.

b. Technology Movement

As a result of the engaging quality of mobile interaction and the fast improvement of modern technologies, mobile data terminals and remote systems will be no less than the scale and influence of computers and network in the future. Mobile innovation and the Internet technology have developed ended up the most driving powers for the improvement of information and communication innovations.

The development of mobile phones has had a huge impact not only on personal lives, but also on workplaces. It helps stay in touch and stay up-to-date with colleagues and customers. Email functionality has been around for a while, and now user take it for granted that user can send and receive email on mobile devices. The mobile phones seamlessly integrate with the office calendars so that user can keep track of both business and personal contacts.

They have also been a big part of flexible working. This has become especially important this year due to nationwide lockdowns and the need to work from home. Many professionals had to (and still do) use mobile phones for business purposes. This was not possible ten years ago. Technologies such as Voice over Internet Protocol (VoIP) also allow employees to use their work phone number to make and receive business partner calls via the cloud (even if they are using their personal cell phones).

Such technology can also help easily record and transfer calls without the need for a dedicated business handset.

In fact, mobile technology has now progressed to the point where wearables are a consumer choice, and many people own smartwatches that function like mobile phones. With such a wide range of features and capabilities, smartphones are no longer just phones

2.4   Mobile Phone and Internet Usage

Mobile devices have become an integral part of millions of people's daily lives. Internet-enabled devices such as smartphones and tablets have evolved into essential tools for communication, information, and entertainment around the world. Unique mobile internet users in 2021 is 4.32 billion, indicating that more than 90% of global internet population are using their mobile devices online.

Mobile ownership and internet usage are projected to continue to grow as mobile technology becomes more affordable and accessible than ever before. This upward trend in mobile Internet adoption is particularly evident in developing digital markets where cellular networks are the primary means of Internet access. Today, mobile Internet traffic accounts for nearly 55% of all web traffic, but in mobile-first markets such as Asia and Africa, mobile connections account for an even greater share of website views.

Mobile Internet grew out of the development of PC (personal computer) Internet in the form of convenient portable devices. The combination of mobile communications and the Internet has made it easier for users to get online, and mobile technologies such as smartphones, tablets, and laptops are the most prevalent. Internet technologies, platforms, business models, applications and mobile A general term for activities that combine technologies.

Launched in 2010, Instagram has grown exponentially over a decade, was acquired by Facebook, and became the second most downloaded free app in 2018 with nearly 1 billion monthly users. With the rise of photo-sharing applications, the quality of mobile phone cameras has evolved significantly as more lenses have been added to the rear cameras and improved optics. Features like optical image stabilization, optical zoom, and low-light performance are standard on most smartphones today 2022, there will be approximately 6.65 billion smartphone users worldwide. This equates to 86% of the world's population. In January 2022, 4.95 billion internet users worldwide, which

is 62.5% of the world's population. And the average global internet user spends about 7 hours online each day. (Source: Simon Kemp, (2022))

Figure (2.1)   Growth of Smart Phone User
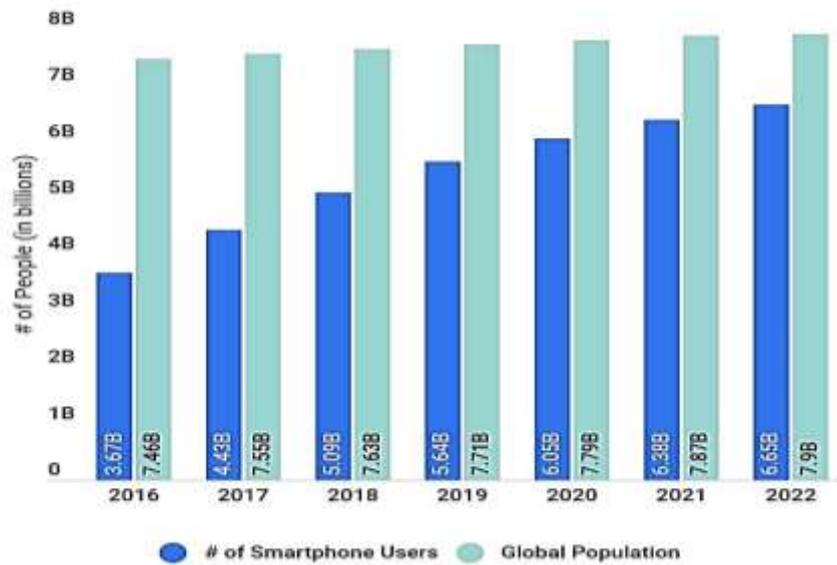
Source: Jack Flynn, 2022

2.4.1   Mobile Phone Usage in Youth and Young Children

To survive in this age, it is important that children grow up familiar with technological devices. Children are the future of the world. Only children will create modern technology in the future. Children are exposed to technology through computers, laptops, smartphones, tablets, TVs and games. Children today are very different from last decades.

Children can learn school lessons and improve their writing and drawing skills through Touch screens, laptops and slot machines. From creative and critical thinking IT products it really help children to become creative people and improve their thinking ability. Children can quickly learn a foreign language with instructions and labels, because IT applications are not made in native language, especially in country. Technology become the best medium for children to learn unusual things in everyday life and get closer to the real world.

Children are still physically, psychologically and neurologically immature, so they should not overuse technology. If a child sits for a long time, watches TV or plays video games, it can lead to obesity and thus, parents should limit such types of habit

and time. Children under the age of 2 are prohibited from using mobile devices to avoid speech delays and stuttering. Children ages 2-5 can use the device for up to 1 hour per day. Parents should balance the time using the device for their 6-year-old children according to their daily activities. Children should be told to do outdoor activities after sitting for long periods of time.

When using electronic devices at night, the light leaking from the screen can interfere with sleep. Parents should not allow their children to use electronic devices in bed and limit their use during the day. Overuse of technology can lead to frustration, confusion, premature mental decline, loss of focus, broken friendships, and mild irritation with psychological problems and thus, parents need to reduce the children's excessive use of IT equipment.

Radiation emission emitted from mobile phones and wireless devices can cause cancer. Therefore, children should be trained to stare less at screens, rest their eyes, and limit the amount of time they use their devices. Children can feel the benefits of technology simply by using it in effective and harmless ways. Children who don't have the opportunity to use technology will be left behind by those who can. Parents will balance the benefits of technology with their children to raise successful children.

Mobile phones have become an important accessory for most people. An integral part of modern society, smartphones serve as navigators, personal assistants and sources of entertainment. Other connected devices such as tablets have also become household items in many homes. The mobile phone users can adjust their screen time. However, some users are addicted to their mobile phones. They have difficulty interacting with the world around them and spend more time on their smartphones at social events than chatting with friends. Every mobile phone user is at risk of becoming addicted to their device such as online games, social media, text messaging and email.

2.5   Health Risk and Impact on Mobile Phone Usage among Children

There are numerous potential wellbeing risks to mental and physical well-being related to overuse of cell phones, particularly low IQ & inappropriate mental development in children, rest hardship, brain tumors and psychiatric maladies are hot-button issues. Till date, studies related to radiations generated by mobile phones have been inconsistent and results have been incompatible. These remote gadgets are presently portion of the way of life but they can be used in a manner that's secure

sufficient, the foremost imperative point is the distance, holding a cell phone few inches away from ear gives a thousand times reduction in risk.

Unless a cell phone is turned off, it is continuously radiating. So when it is not in used, should not be kept on the body. The most excellent place to keep a phone is some place like a pocket, satchel, sack, or rucksack. These gadgets ought to be kept away from a pregnant woman's abdomen, a mother should not utilize a phone whereas breastfeeding and nursing and, child monitors should not be set in an infant's bunk. Children and teenagers must know how to utilize mobile phones and wireless gadgets securely. Cell phones ought to not be allowed in children's bedroom at all.

Smartphone usage is becoming an increasingly accepted part of everyday life. At the same time smartphone addiction also increased, as shown in statistics dada. In 2022, mobile phones to communicate and connect, it can be difficult to determine when excessive smartphone use becomes an addiction. Although addiction to digital devices doesn't affect health as much as other types of addiction, it actually affects not just mental health, but physical health as well.

It is important to understand the symptoms of mobile phone addiction. Some of the most common symptoms are feelings of anxiety when the phone is out of range or when there is no cell service. Smartphone use has ruined family vacations and socializing with friends. Smartphone use puts important relationships and professional careers at risk.

2.5.1   Knowledge, Practice and Prevention on Mobile Phone Usage

Screen time is the time spent using devices with screens, such as smartphones, computers, televisions, and video game consoles. This Screen time correlates with psychological and physical damage in child development. The positive or negative health effects of screen time are influenced by the level and content of exposure. To prevent harmful exposure to screen time, in private schools there has been a significant push to remove screens from classrooms to avoid the negative effects from screen time.

a.   Effects on Physical Health

In addition to negatively impacting sleep cycles for mobile user, screen use can also affect physical health. This sedentary behavior is due to the nature of activities

using most of the electronic devices. Sitting down to watch TV, play computer games, or surf the Internet takes time away from physical activity and increases the risk of weight gain. Children who watch TV for one to two hours a day are more likely to be overweight or obese than those who watch TV for less than one hour.

The adolescents who spent more than seven hours a day in front of a screen had significantly different cortical development than children who spent less than seven hours a day. This part of the brain normally thins with age, but this accelerated decline may be related to the amount of time spent on screen.

b. Effects on Mental Health

As mentioned earlier, sleep and screen time can greatly influence each other and ultimately behavior. If someone isn't getting enough sleep, it can affect their behavior and ability during the day. As screen use increases over time, adults spend more and more time paying attention to screens. This amount of time spent sitting and looking at screens is associated with psychological effects such as anxiety and depression. An adult who spends more than 6 hours in front of a screen is more likely to have moderate to severe depression. This increased use of screen time has been shown to directly correlate with increased risk of depression in adults, without proper rest, mental health can deteriorate faster.

The American Academy of Pediatrics recommends that screen time per day for children ages 3 to 5 should be no more than one hour. One of the studies published in November 2019 found that children who spend more time on screens have slower brain development, impairing skills such as imagination, mental control, and self-regulation. This is important because the brain develops fastest during the first five years of the children's life. Overexposure also negatively affects literacy, reading and language skills.

c. Effects on Environmental

80% of a smartphone's carbon footprint comes from the manufacturing process, 16% from use during the product's lifetime, and the rest from transportation from suppliers to consumers. It contains precious metals such as aluminum, cobalt, copper, gold, palladium, platinum, silver, tantalum, tin and tungsten, making it one of the most resource intensive commodities on the market. (source: envirotech,2019)

Another major environmental issue posed by smartphones is what happens to them after use. In today's consumer society, technological advances and fashion whimsy are pushing manufacturers to produce smarter, slimmer and more attractive mobile phones. People often "upgrade" their old phones while they're still working perfectly. The result is an enormous amount of avoidable and unsustainable waste. The plastic body of mobile phones not only poses a dangerous problem of microplastics, but there is an even bigger problem is e-waste (electronic-waste). Every year, less than 16% of all e-waste is recycled.

This is not only a gross waste of resources, but also a threat to human and global health. E-waste releases harmful pollutants such as arsenic, lead, mercury and zinc, as well as brominated flame retardants that pollute the air and can affect the health of local people. To minimize these detrimental effects, both manufacturers and consumers need to change their habits and aim for more sustainable and less polluting smartphone models.

d. For Prevention

Preferably, Adults should limit screen time in the same way as children, using screens for only about 2 hours per day. An adult who needs to look at a work tool screen may not let spend less than 2 hours in front of it, but there are other recommendations to help reduce the adverse health effects. Adults are also advised not to eat in front of screens to reduce behavioral impact. Experts also recommend that adults analyze their daily screen time use and replace some of their unnecessary use with physical activity and social events.

For the Children, in 2019, the World Health Organization released guidelines for media use by children under the age of five. For Age 1 year old, no time to sit and look at screens, 2-4 years old 60 minutes or less of sedentary screen time. In 2016, the American professional association of pediatricians (AAP) issued broader guidelines for children under the age of 5 covering screen time, quality of content used, and screen use by parents with their children. Screen time limits for 18-24 months aged was No screen time (excluding video chat). For 18-24 months aged to limit screen time as much as possible. For Ages 2-5: Limit screen time to about 1 hour per day and in addition to these screen time guidelines, it is recommended that content should be high quality, educational, slow-paced, and non-violent when screen time occurs. Parents should avoid giving their children apps with highly distracting content.

It also suggested that families use media with their children to help them explain what they see on screen and how it affects their lives. It recommends turning off devices (including televisions) when children are not actively using them and making the bedroom a screen-free zone. In addition, clear screens at least an hour before bedtime.

For children ages 5 to 18, the AAP has released 2016 recommendations. It focuses more on media usage than screen time. They recommend that children and teens keep devices (including televisions) out of the bedroom at bedtime and put away screens at least an hour before bedtime. They recommend that parents discourage the use of screens for entertainment purposes when children and young people are doing homework. This plan should include consistent guidelines and boundaries for each family member, and families should consider setting screen-free times and areas of the home.

2.6   Review on the Previous Study

Previous study learning is SMARTPHONE USAGE ON STUDENT. Most of the facts and references are similar because of the same focus on Mobile Phone and information technology however, finding are different by sectors. I am learning on parents' perception and the others study are SMART Phone usage in Student and effect the health of smart phone in Yangon people.

In the literature review of "A Study on the Effects of Smartphone Usage on Students of MPA (18th Batch) (2017-2019)" the History of smartphone, the evolution of smartphone, Global Internet usage, Function and usage of Smartphone and effects of smartphone usage were described and presented. Moreover, positive and negative effects of smartphone usage and effect of smartphone on education for students were also described.

Regarding the effect of smartphone on social interaction, it was described that communication plays a vital part of human life. This indicates technology changing rapidly to match human necessities. In the modern society, communication becomes easier with the development of technology and it influences the style of communication between individuals. Aparently, the unique and multiple features of smartphones make it different from other phones.

However, social engagement between individuals is jeopardized with its unique application by limiting face to face interaction and develops more chat rooms

communication. It might cause lack of real life social interaction that contributes to relationship to arise and interference in students' academic work.

Society is moving towards smartphone world therefore, it can be obviously seen that individuals are investing most of their time on the screen chatting and engaging in social media. Although the application of smartphones increases the ability to interact with social mates easily and freely but it also poses danger on relationship between human.

Even though individuals are able to create groups of friends and communicate through various social platforms but oral communication is seen to be lack (Singh, Manvin, Samah & Narina, 2018). Same approach of overview of telecommunication sector in Myanmar is based on Myanmar telecom sectors and as mentioned on Laws and Regulation in Myanmar. But previous study highlighted on The Contribution of Telecommunication Sector to GDP.

The expansion of Myanmar's telecommunication sector continues to live up to its early promise, with the reform of the industry. The Telecom sector has been booming since the liberalization in 2012-13 Fiscal Year and is likely to do so in the near future. As the telecom sector has attracted the second-largest amount of foreign direct investment (FDI) after oil and gas, the contribution of Telecommunication sector to GDP has increased rapidly year by year.

In relation to the Increase of Telephone Penetration, according to the Directorate of Telecommunications in 2017, the Myanmar Post and Telecommunications (MPT) has sold 23.18 million Sim cards, Telenor has sold 18.8 million and the Ooredoo has sold 8.11 million Sim cards. Therefore, the percent of mobile phone penetration becomes higher, but this number likely does not reflect the real penetration rate as many users own more than one SIM card, so the real penetration rate would be 79.5% in 2016-17 Fiscal Year.

The key point of fact is discussing the same information especially in the effect of mobile, positive effect, negative effect, telecommunication LAW and mobile sectors etc... However, due to the fact that the different group is targeted in the study the survey analysis and recommendation are different.

In previous study the survey was conducted in Yangon University of Economics (Kamayut, Hlaing and Ywathagyi) during February to March 2019. The total population size of these three areas was 6,175. The sample size of the research study was 224. The purpose of choosing this area was to study the effects of smartphone usage

on students as a student at this university. The previous study collected survey data from students in these three areas that include university students from eight specialized majors from first year to master degree in which respondent in these target areas were approached and selected by two stage sampling design

The previous survey questionnaire consisted of three sections. The first section was to obtain personal information based on demographic data such as gender, age and educational level. The second section was about the information of smartphone usage by students such as number of handsets, types of SIM Card, phone's memory card, favorite feature of smartphone, primary purpose of using internet on smartphone, types of phone's accessories, brand name of smartphone, reasons for choosing the smartphone, time spend on smartphone, always on smartphone, hours for one day use on smartphone, places where smartphones are used, reason of using smartphone and using phone bills of the respondents. The last or third section was getting the opinions about smartphone. It is important to note that the fourth section contained questions to be related based on the scale.

According to the survey result, most of students used the applications of smartphone. So, students can relax just by having a phone, can save time by using online shopping and save the papers by using a notebook or a calendar for every year.

CHAPTER III
OVERVIEW ON MOBILE TELECOMMUNICATION IN MYANMAR

3.1 Telecommunication Laws in Myanmar

In 2013, The government has begun to take steps to open up the telecommunications market, licensing new service providers. The consulting firm Roland Berger (Roland Berger is the only European consulting firm with an international presence and one of the main representatives of the industry) assisted the government in the liberalization and bidding process. As of 2014, Ooredoo, headquartered in Qatar (Changed: Nine Communication Group (Singapore, Sep 2022) and Telenor Norway, in all of their local subsidiaries - Ooredoo Myanmar and Telenor Myanmar (after a long management process, Myanmar authorities have approved the transaction on March 18, 2022. Company renamed ATOM on June 8, 2022) respectively market entry, resulting in falling consumer prices and rapid subscriber growth, as well as expansion infrastructure of the country. In November 2015, Ericsson named Myanmar the fourth fastest growing mobile market in the world. In June 2015, Myanmar had a mobile phone penetration rate of 54.6%, compared to less than 10% in 2012. On 12 January 2017, Mytel (Telecom International Myanmar Co., Ltd.) has obtained a license to provide telecommunications services., officially became the 4th operator in Myanmar.

Internet in Myanmar has been available since 2000 when the first Internet connection was established. As of September 2011, the level of internet censorship historically prevalent in Myanmar has dropped significantly. In 2015, the introduction of high-speed 3G mobile internet by multinational telecommunications companies Telenor Myanmar, Ooredoo Myanmar, Myanmar Post and Telecommunications (MPT) significantly increased the number of internet users to 12.6%. In January 2017, the fourth and latest National Telecommunications License (NTL), led by Vietnam Army-backed Viettel, was awarded in a joint venture between the Myanmar Army-owned Star Hi Public Company and a consortium, Myanmar National Telecom Holding.) was

granted to him on MyTel. 11 local companies. Myanmar's internet environment has continued to evolve since its inception in 2010 and the reduction of censorship in 2011, but laws such as the Telecommunications Law of 2013 restrict citizens from being completely free online continue. Despite restrictions, Internet penetration continues to increase nationwide.

Table (3.1)   Nationwide Telecommunications Licence

No	Licence Issued Date	Licence Expired Date	Company Name	Licence Type	Services
1	5-2-2014	4-2-2029	Ooredoo Myanmar Limited/Nine Communication Group (Sep 2022)	Nationwide Telecommunications Licence	All Telecommunication Services
2	5-2-2014	4-2-2029	Telenor Myanmar Limited/ATOM (June 2022)	Nationwide Telecommunications Licence	All Telecommunication Services
3	24-3-2015	23-3-2030	Myanma Posts and Telecommunications	Nationwide Telecommunications Licence	All Telecommunication Services
4	12-1-2017	11-1-2032	Telecom International Myanmar Co., Ltd (Name change from Myanmar National Tele & Communications Co., Ltd)	Nationwide Telecommunications Licence	All Telecommunication Services

Source: Post and Telecommunication Department (2019)

a. Network Facilities and Internet Use in Myanmar in 2022

According to Post and Telecommunication Department (2019) list Myanmar has many network facilities service providers such as Yatanarpon Teleport, Shwe Than Lwin Media Co., Ltd, 5BB Broadband, satellite internet provider Skynet, state-owned

Myanmar Post and Telecommunications (MPT), WeLink Myanmar, Myanmar Net, Myanmar Speednet and, Myanmar Telecommunication Network Public Co., Ltd.

There are (67) Network Facilities Service (Individual) Licence. The "NFSI" license is the highest license that permits Licensee to conduct all activities under the NFSI, NFSC, NS and AS licenses. Activities covered by the NFSI license include activities related to the construction, maintenance and operation of terrestrial fixed network transmission facilities. Terrestrial radio transmission equipment; mobile base station equipment; submarine cable systems; international gateway service facilities. satellite earth station installations; and other satellite installations in the Union of Myanmar that provide facilities for the transmission of telecommunications services.

Network Service License, The "NS" license only permits activities included in the NS and AS licenses are (17). The NS license permits the construction and maintenance of switches, routers and processing equipment, but is limited to telecom network equipment. NS license also includes resale of wired connection service, resale of terrestrial wireless connection services, international and domestic network transport and switching services and, resale of international gateway services.

A total (54) Network Facilities Service (Class) Licence, An "NFSC" license permits activities covered by an NFSC license, but the licensee is eligible to apply for NS and AS licenses. The NFSC license covers activities related to tower construction, deployment and maintenance: Masts, channels, grooves, rods, dark fibers, radio equipment installed to transmit and, receive and relay communications. In addition, an NFSC licensee may lease telecommunications infrastructure to NFSI licensee or other third parties (non-licensees)

There have (31) Application Service Licence, An AS License permits the licensee to carry out only activities permitted under the AS License. The permitted activity under the AS license is public telephone service. Publicly Brokered Data Services. Audiotext hosting service offered on an opt-in basis. Directory Services; Internet Service Provider Services; Public Access Center Services. news services; leased-line voice and/or data services; and value-added services.

In January 2022, Myanmar had 25.28 million internet users. At the beginning of 2022, Myanmar's internet penetration was 45.9% of the total population. According to Kepios analysis, Myanmar's internet users will grow by 1.7 million (+7.1%) between 2021 and 2022.

b. Mobile Connections in Myanmar (2022)

As of early 2022, Myanmar had 73.48 million mobile connections, according to data from GSMA Intelligence. However, to keep in mind that many people around the world use multiple cellular connections. For example, he may use one connection for personal use and another for work. Cellular subscriptions are often significantly higher than the general population. Myanmar's mobile subscriber count in January 2022 accounted 133.6% of the total population, according to GSMA Intelligence figures. Mobile subscriptions in Myanmar grew by 4.7 million (+6.8%) between 2021 and 2022.

3.1.1 Telecommunication Law for Service Provider

Myanmar's mobile communications market is becoming increasingly dynamic and competitive. Since 2014, the three largest telecommunications companies in Myanmar, MPT, Ooredoo and Telenor, have served more than 50 million mobile subscribers, with mobile penetration in Myanmar at nearly 95%. After Mytel became the fourth telecom provider in January 2017, there are now four telecom providers in Myanmar. Strong growth is projected in the near future as telecommunications companies offer increasingly faster network speeds and connectivity. Since the telecommunications business has the potential for further investment from overseas.

In 2013, the Union of Myanmar signed the Telecommunications Law ("Telecommunications Law"). As part of ongoing efforts to open Myanmar to the world, especially to foreign investment, the Telecommunications Law was explicitly drafted with foreign investors in mind. The current state of Myanmar's telecommunications industry is relatively underdeveloped, with less than 9% of Myanmar's 60 million population owning mobile phones, and the need for foreign investment to develop this important and fast-growing sector. This is not surprising given the technology and know-how of The Telecommunications Act aims to support the modernization and development of Myanmar using telecommunications technology.

Telecom Licensing attracted bids from prominent global companies such as Airtel, Axiata, Bharti, China Mobile, KDDI Myanmar, Ooredoo, Singtel, Sumimoto, Telenor, Vodafone and George Soros. On 27 June, the Ministry of Communications and Information Technology ("MCIT") announced that Telenor of Norway and Ooredoo of Qatar (also known as Qatar Telecom or Q-Tel) will build Myanmar's

telecommunications network and expand nationwide and that it has acquired a license to operate its wireless network for15 years in Myanmar.

The Telecommunications Act is supplemented by Notification No. 16/2014 (Licensing Regulations) issued by the Union Government's (MCIT) Department of Communications and Information Technology (now Department of Transportation and Communications). Licensing was introduced and implementing provisions of the Telecommunications Act were introduced.

The Posts and Telecommunications Department (Department) under the Ministry of Transport and Communications is the telecommunications regulator in Myanmar. The responsibilities of the Department include the issuance and renewal of service provider licences; the regulation of the frequency spectrum and numbering plans; ensuring consumer protection; inspection and supervision of service providers; and initiating administrative actions against service providers. As part of sector reforms, the MOTC is authorized to establish the National Telecommunications Advisory Committee. To make recommendations on technical standards, consumer protection and strategic development of the telecommunications sector in Myanmar to hear administrative appeals against the MOTC's decisions.

3.1.2   Telecommunication Law for Network User

Since its introduction in 2013, the Telecommunications Act has been used many times to restrict freedom of speech and opinion. Reporters, politicians and social media users have been charged with defamation under Section 66(d) of the Act.

Since 2013 Telecommunications Act Regulating Private Telecommunications Operators. Section 66(d) of the Telecommunications Act states: Up to 3 years." years, fines, or both.

In Chapter XVIII , Offences and Penalties , " 66. Whoever commits any of the following acts shall, on conviction, be punished with imprisonment for a term not exceeding three years or with fine or with both: (d) extorting, coercing, restraining wrongfully, defaming, disturbing, causing undue influence or threatening to any person by using any telecommunications network". Source: Myanmar Law information System, (2013)

The Pyidaungsu Hluttaw amended Section 66(d) in August 2017. Under the revised law, judges can release defendants on bail. Only persons directly affected by the alleged crime or with the permission of the data subject can be prosecuted under the law. Also, the maximum sentence for him was reduced from 3 years to 2 years for him.

3.2 Mobile Phone usage of Children in Myanmar

a. Benefit For child health

By using Mobile phone and modern technology there are many opportunities emerged. Mobile phones enable health information to reach unprecedented numbers of people who would otherwise be underserved. Mobile phones are therefore a powerful tool for distributing health information in rural and urban areas of Myanmar. This is important given the growing evidence of the significant impact of early childhood developmental contributions on long-term socioeconomic outcomes. Currently known mobile technology can be most effectively used to provide health information in developing countries.

The current healthcare industry is beginning to integrate new technologies such as online medicine, online appointments, telemedicine collaboration, and online payments into its practice. Continuous advances in technology make related medical services and treatments using medical technology more effective and accessible.

The digital intervention of maternal health mobile application, "MayMay" launched in sep,2014. Within the application health messages include reminders to exclusively breastfeed, nutrition tips, warning signs and, user can call hotline or find their nearest health provider.

The mobile application "MayMay" which is health knowledge distribution intervention aim to overcome gaps in the knowledge of a maternal and child health in Myanmar. The "MayMay" app was developed by Koe Koe Tech, a local firm specializing in the IT and healthcare sector, in partnership with Population Services International, a global non-profit organization operating in Myanmar and over 60 developing countries. The "MayMay" app is intended for pregnant women and mothers with young children, and provides health information by text messages according to the stage of pregnancy and the age of the child. Each text message is based on information approved by the Myanmar Ministry of Health.

Another application is Baykin 2, With the support of Global Affairs Canada, UNFPA Myanmar collaborated with the 360ed team to launch the Baykin 2 mobile

application. By integrating with Augmented Reality (AR), the Baykin 2 app target Myanmar adolescents and young people with information on sexual and reproductive health and rights, gender equality, gender-based violence, self-development and other youth-related content like self-defense.

The Baykin 2 app integrates learning and play to increase engagement among young users and provide a better visual representation for learning about bodies and rights. Additionally, adolescents must be equipped with the knowledge and tools to become aware of and less susceptible to gender-based violence.

b. Benefit for Children Education

Children today are very different from last century. Every parent wants to know if their child should be allowed to use the IT product. Touch screens, laptops and slot machines with handles help children develop hand-eye coordination. This will also help children for learning school lessons and for improving writing and drawing skills. IT products really help children to become creative people and improve their thinking ability. It also supports quick decision making. IT applications are not made in native language, especially in country with low production, so children can quickly learn a foreign language with instructions and labels. Technology serves as the best medium for children to learn unusual things in everyday life and get closer to the real world while they are from developing countries.

Across the globe, the unprecedented COVID-19 pandemic has disrupted traditional classroom instruction. However, hybrid or online learning has become industrialized in many parts of the world, allowing professors and teachers to move from traditional classroom instruction to this new arrangement. There has also been a great deal of research done on the experiences and challenges of educators in adopting these new technologies and approaches, and some students are learning online as part of efforts to improve the quality of their education. In Myanmar, more than 12 million children have lost access to education since early 2020 after all schools and universities were closed to stem the rise of COVID-19.

Moreover, increased internet access in Myanmar coupled with the boom in smartphones and e-learning, has enabled e-learning foundations to reach previously excluded populations. E-learning makes it accessible to students who cannot afford to attend a large center.

c. Challenges of Social Media for Children

Social media plays an active role in the lives of Myanmar's youth by providing opportunities to learn, share and interact within and outside the community. This is especially important for children and young people affected by conflict. There is an urgent need for cybersecurity skills and innovative online child mental health support services for young people in Myanmar to better protect themselves and report abuse/harassment.

Online Digital Dangers , The benefits of modern technology and better access to the internet come with certain risks and digital perils. These include privacy risks, various forms of cybercrime such as child sexual abuse imagery and revenge pornography, cyberbullying and stalking, and "hate speech." The current state of mobile phones in terms of hardware, software, and networks Internet users in Myanmar.

Hate Speech and Fake News, Myanmar is a test case of what happens when the pace of internet usage outstrips the development of digital and cybersecurity skills. While many have highlighted the positive contributions social media has made to their lives, young people across Myanmar are suffering through repeated exposure to fake news and propaganda aimed at specific communities. A young boy said he began to suffer from "hate speech fatigue." Prevent the spread of dangerous and disruptive words with built-in notifications and blocking. Many young people also reacted to hate speech and fake news online with emojis and comments.

Online sexual harassment, The prevalence of online sexual harassment was strongly described. They may experience offline experiences such as strange men trying to hook up on social media, sending inappropriate sexual content, or blackmailing them for money, nude photos, or declarations of love are described harassment that reflected. The use of rape and sexual violence as weapons of war in ethnic conflicts in Myanmar is well documented. However, little is known about the extent of gender-based violence and sexual harassment faced by many girls and women in conflict-affected areas of Myanmar.

3.3   Status of Social Media in Myanmar

In early 2011, Internet cafes were a popular access center for Internet users in the country, most of whom used separate software to bypass government proxy servers. The popularity of internet cafes has declined due to the emergence of cheap mobile internet and the development of communication infrastructure after liberalization. However, it is still widely used, especially in Yangon and Mandalay, and is widely used for blogging and other activities.

After Myanmar transitioned in 2011, the introduction of affordable internet-enabled mobile communication devices changed the way people consume information and mobilize social movements. Sharing news and information was the most common reason for using social media. The exchange of news about educational opportunities was also popular in Myanmar.

As of January 2022, Myanmar has 20.75 million social media users. Although the number of social media users in Myanmar accounted for 37.7% of the total population in early 2022, it is important to note that social media users may not represent unique individuals.

Nonetheless, the use of the Internet and social media is still growing and influential, and Facebook usage is used by a wide range of people in Myanmar. As the use of social media spreads, people who use platforms such as Facebook do so for controversial good and bad reasons.

Facebook is the most widely used social media platform in Myanmar. However, many Myanmar users do not use Facebook for social networking, but as a search engine and for reading news. One of the reports presented Myanmar's internet users are lack of basic digital skills due to lack of experience in digital media. Myanmar users, who lack the tools they need to navigate the online world safely, responsibly and critically, are considered particularly vulnerable to disinformation campaigns. So, one of the most obvious problems with Facebook's sudden spread across Myanmar is the creation and dissemination of fake news and hate speech.

The following figure shows the active social media users as a share of the total population in Myanmar from 2016 to 2022.

Figure (3.1)   Social Media User Penetration in 7 Years
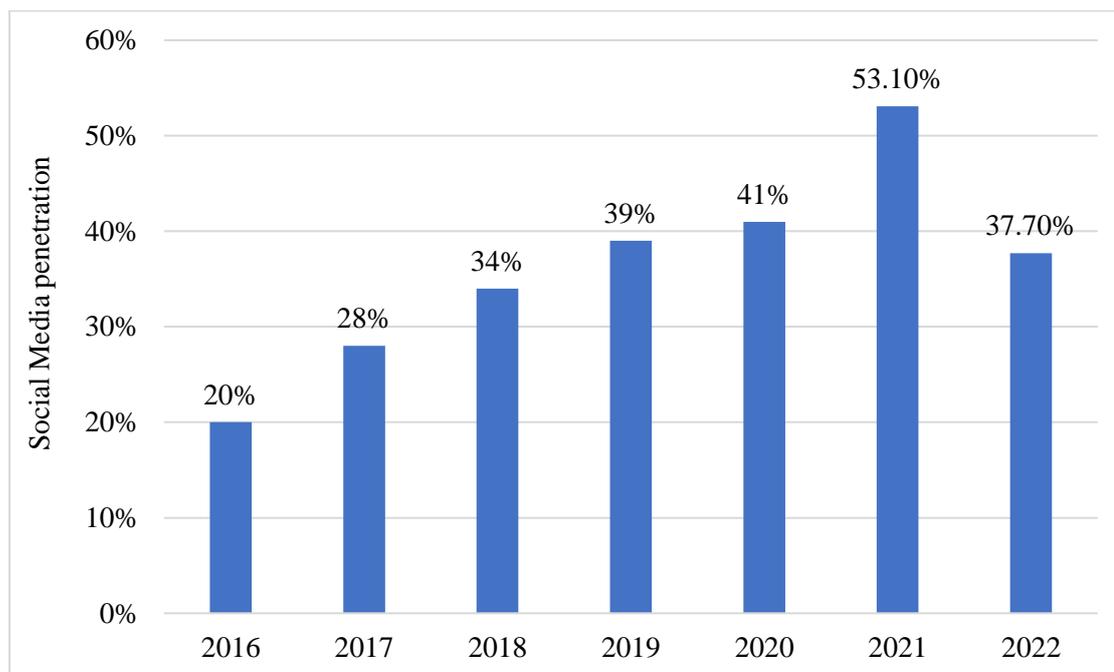
Source: S. Ganbold,(2022)

In Figure (3.1) The social media user penetration are increasing every year and reach the highest number in 2021. But, in 2022, it was decrease to 37.7 percent of the Myanmar population who were active social media users. This was a significant decrease and back to the previous situation as of 2019. (Source: S. Ganbold,(2022))

Facebook was the most used app, but chat-based platforms for private groups were also popular. The majority say they check the accuracy of messages they read on social media, but most of the users are checking through their Facebook pages or asking friends and family. Overall, most young people feel that social media has both positive and negative effects on their lives.

There were 19,781,100 Facebook users in Myanmar in July 2022, which accounted for 35.3% of its entire population of 56,042,000. The majority of them were men - 54.7%..

Figure (3.2)   Facebook User in Myanmar

Facebook Users in Myanmar
July 2022

User : 19 781 100

Women 45.3%   Men 54.7%

19.2%
16.2%   20.7%
16.2%
3.6% 4.1%
5% 6%
2.3% 2.4%
1.2% 1.3%
0.8% 1.0%

13-17   18-24   25-34   35-44   45-54   55-64   65+

■ women ■ men
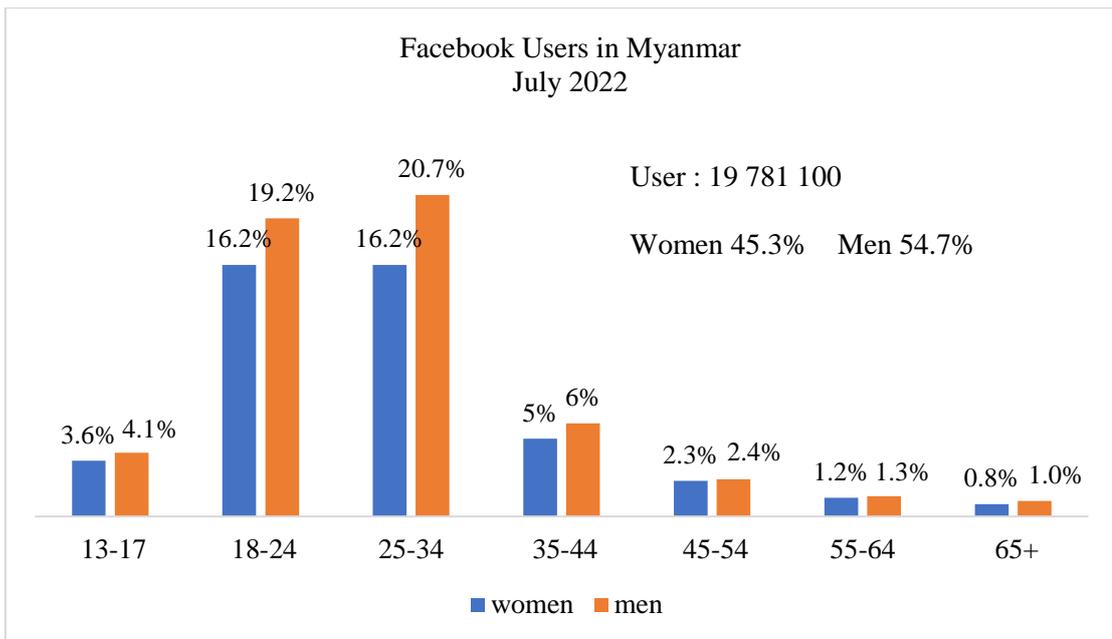
Source: NapoleonCat. (2022).

Instagram users in Myanmar, July 2022. There were 1 736 600 Instagram users in Myanmar in July 2022, which accounted for 3.1% of its entire population. The majority of them were women - 54.5%

Figure (3.3) Instagram User in Myanmar

Instagram Users in Myanmar
July 2022

User : 1 736 600

Women 54.5%   Men 45.5%

27.2%
22.0%
13.9%
12.1%
8.6%
6.7%
3.2% 3%
1.1% 1.0%
0.3% 0.4%
0.2% 0.3%

13-17   18-24   25-34   35-44   45-54   55-64   65+

■ women ■ men
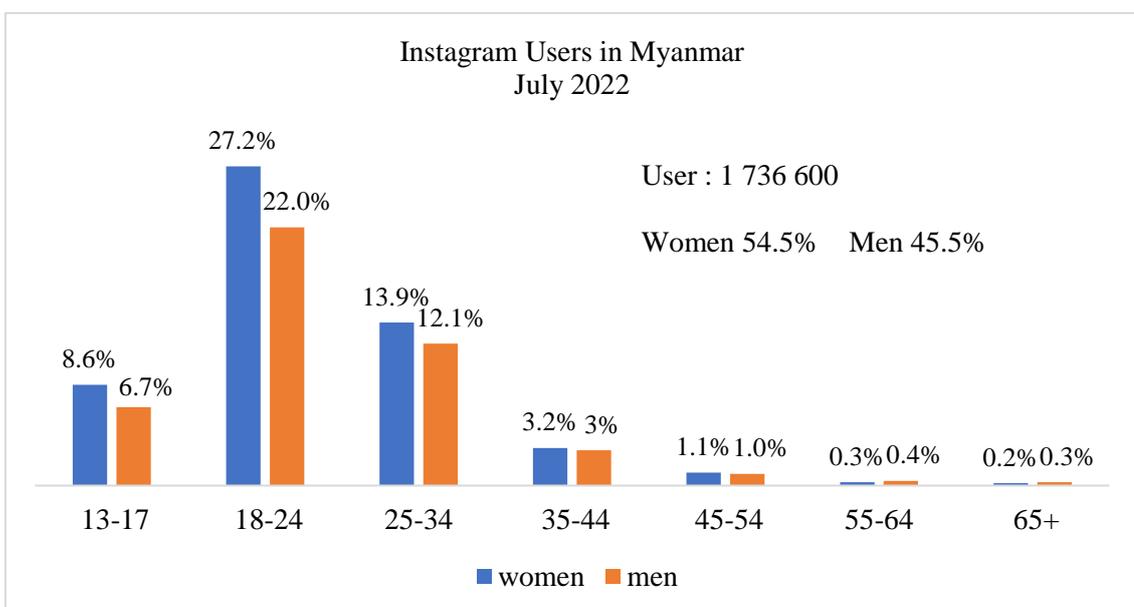
Source: NapoleonCat. (2022).

Messenger users in Myanmar July 2022. There were 18 248 800 Messenger users in Myanmar in July 2022, which accounted for 32.6% of its entire population. The majority of them were men - 54.7%.

Figure (3.4)   Messenger User in Myanmar
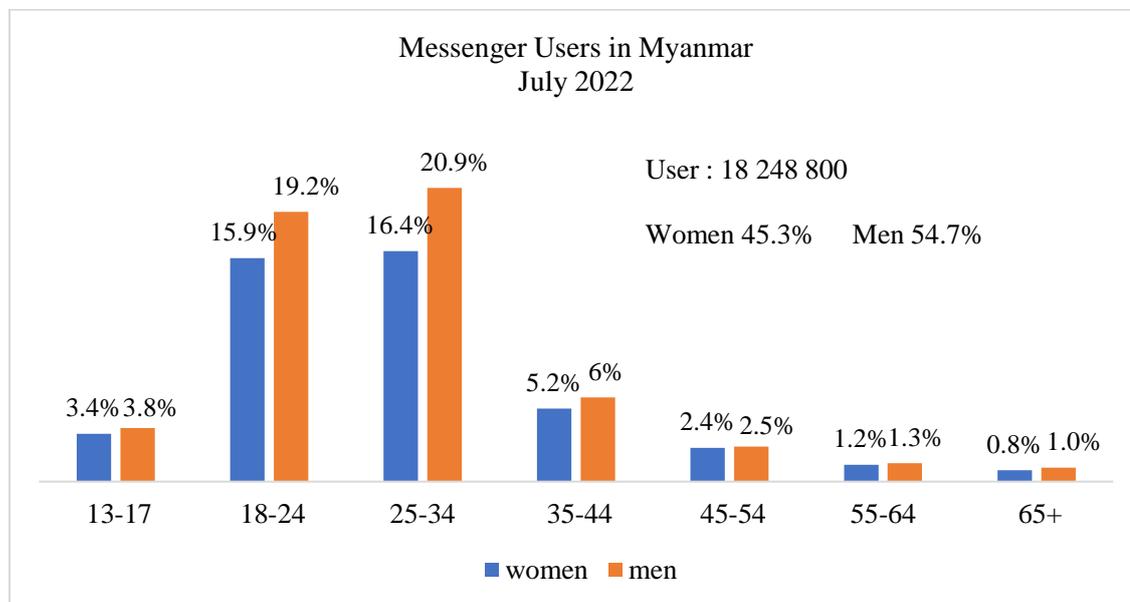
Source: NapoleonCat. (2022)

a.   Current Online Media Status in Myanmar

Myanmar has had a tough year since 2020 due to the effects of the new coronavirus infection. In relation with social media and digital devices, there may be some impact on the media environment, including media and other print media, and sales of personal power sources such as generators, power banks, batteries, inverters and solar panels are also expected to increase..

As of January 2022, Myanmar has about 26 million internet users, according to DataReportal. In early 2022, Myanmar's internet penetration was at 45.9% of the total population. The number of internet users is expected to grow by 1.7 million (+7.1%) between 2021 and 2022. From this perspective, users indicate that about 30 million people in Myanmar did not use the internet at the beginning of 2022, so 54.1% of the population initially remained offline. Wi-Fi is only available in major cities such as Yangon, Mandalay and Naypyidaw, while people elsewhere rely on their mobile data. Source: Simon Kemp, (2022)

Internet penetration reached 23.65 million Internet users, an increase of 3.5 million users between 2019 and 2021. Among them, as of January 2022, he has 20.75 million social media users in Myanmar, accounting for 37.7% of the total population.

There are also popular social media apps such as Instagram, WhatsApp, Line and Twitter. In early 2022, the aforementioned skyrocketing mobile data rates and power shortages led to a decline in social media application usage. If this situation in the country continue remained for the rest of the year, it is expected that the usage of social media would decline at some point.

The enhancement of technology, online payments have become more and more popular in Myanmar. The e-wallet-to-cash exchange rate had a higher remittance tax, initially 5% of the amount remitted, but in 2022 he eventually dropped to 2.5% or 3%. In the coming months of 2022. The most famous e-wallet platforms will be KBZ Pay from KBZ bank, Wave Pay, Aya Pay and other platforms like M-Pitesan, OK$, My Money, and MPT Money but the upper 3 of them are the most famous among the Myanmar majority. Source: Pheanouk Tan/2022

Table (3.2) Mobile, Internet and Social Media Use in Myanmar

Year	Total Population	Mobile Phone Connections	Internet Users	Active Social Media Users
JAN 2020	54.23 Million	68.24 Million	22.00 Million	22.00 Million
JAN 2021	54.61 Million	69.43 Million	23.65 Million	29.00 Million
FEB 2022	55.02 Million	73.48 Million	25.28 Million	20.75 Million

Source: Simon Kemp (2022)

Table (3.2) shows the usages of mobile phone connection, internet user and active social media users from year 2020 to 2022 in Myanmar. For mobile phone connections is 68.24 million in 2020, 69.43 million in 2021 and 73.48 million in year 2022. For the inter users 22 million user in year 2020, 23.65 million users in year 2021 and 25.28 million user in 2022. For the active social media users, the highest user is 29 million in year 2021.

Table (3.3)   Digital Growth Indicators / Changes in Key Indicators of Digital Adoption in Myanmar

Year	Total Population	Mobile Phone Connections	Internet Users	Active Social Media Users
JAN 2020	+0.7% +351 Thousand	+18% +10 Million	+4.8% +1.0 Million	+6.6% +1.4 Million
JAN 2021	+0.7% +380 Thousand	-0.9% -616 Thousand	+11.8% +2.5 Million	+31.8% +7.0 Million
FEB 2022	+0.7% +409 Thousand	+6.8% +4.7 Million	+7.1% +1.7 Million	N/A Year-on-Year-change

Source: Simon Kemp (2022)

Table (3.3) shows the changes in Key indicators of Digital adoption in Myanmar. Compared to 2019, mobile phone connection increased by 10 million (18%). However, it slightly decreased by (0.9%) in 2021 and it increased by 4.7 million (6.8%) in 2022. Regarding to internet user, it increased by 1 million (4.8%) in 2020 compared to 2019. In 2021 internet users increased by 2.5 million (11.8%) and further increased by 1.7 million (7.1%). In 2020, active social media users increased by 1.4 million (6.6%) compared to previous year 2019. It increased 7.0 million (31.8%) in 2022.

Table (3.4)   Facebook Audience Overview in Myanmar

Year	Number of People that Facebook Reports Can be Reached with Adverts on Facebook	Facebook's Reported Advertising Reach Total Population Aged 13+	Percentage of its Ad Audience that Facebook Reports is Female*	Percentage of Its Ad Audience that Facebook Reports is Male*
JAN 2020	21.00 Million	50%	41.7%	58.3%
JAN 2021	27.00 Million	63.1%	44.4%	55.6%
FEB 2022	19.25 Million	44.4%	44.7%	55.3%

Source: Simon Kemp (2022)

According to Facebook report, the number of people the advertisement reached is 21 million in 2020. The number increased to 27 million in 2021 and remarkably decreased to 19.25 million in 2022. The total population aged 13 and above the advertisement reach is 50% in 2020 . it increased to 63.1% in 2021 and significantly decreased to 44.4% in 2022. According to Facebook report, percentage of female in Advertisement Audience is 41.7% in 2020. It increased by 44.4% in 2021 and slightly increased by44.7% in 2022.

Table (3.5)   Mobile Connections by Type in Myanmar

Year	Total Number of Mobile Connections (Excluding Iot)	Year-On-Year Change in The Number of Cellular Mobile Connections	Mobile Connections as a Percentage of Total Population	Percentage of Mobile Connections that are Pre-Paid	Percentage of Mobile Connections that are Post-Paid	Percentage of Mobile Connections that are Broadband (3g & 4g)
Jan 2020	68.24 Million	-	126%	98%	1.8%	82%
2021 JAN	69.43 Million		127.2%	97.8%	2.2%	91.2%
2022 FEB	73.48 Million	+6.8% +4.7 Million	133.6%			93.4%

Source: Simon Kemp (2022)

Table (3.5) shows the mobile connection categorized by payment type and connection bandwidth. Total number of mobile connections is increasing by 73.48 million in 2022, Year-On-Year changed in the number of cellular mobile connection 4.7 million (6.8%) in 2022. The number of mobile connections as a percentage of total population increased by 133.6% in 2022. (93.4%) of mobile connection that are broadband is higher than last years.

Table (3.6)   Facebook Access by Device in Myanmar

Year	% of Facebook Users Accessing Via any Kind of Mobile Phone	% of Facebook Users Accessing Via Laptop or Desktop Computer Only	% of Facebook Users Accessing Via both Phones and Computers	% of Facebook Users Accessing Via Mobile Phones Only
JAN 2020	99.8%	0.2%	2.5%	97.3%
JAN 2021	99.8%	0.2%	5.6%	94.3%
FEB 2022	99.8%	0.2%	3.3%	96.6%

Source: Simon Kemp (2022)

Ttable (3.8) shows the Facebook access by device in Myanmar. The percentage of Facebook users accessing via any kind of mobile phone not change in 2022. The percentage of Facebook users accessing via mobile phone only increased by 96.6% in 2022.

Table (3.7)   Ecommerce – Financial Inclusion Factors in Myanmar

Year	Has an Account With a Financial Institution	Has a Credit Card	Has a Mobile Money Account	Makes Online Purchases and/or Pays Bills Online	Made P Purchase on the Internet in the Past Year	Used the Internet to Pay Bills in the Past Year
JAN 2020	26%	0.06%	0.7%	3.6%		
JAN 2021	26.0%	0.06%	0.7%	3.6%		
FEB 2022	25.6%	0.06%	0.7%		2.6%	1.1%

Source: Simon Kemp (2022)

Table (3.9) shows the status of Ecommerce- Financial inclusion factors in Myanmar. The number of people who has an account with a financial institution slightly decreased by25.6% in 2022. The number of people who has a credit card 0.06% in 2022. The number of people who has a mobile money account 0.7% and it does not changed over the period from 2020 to 2022.

3.4   Situation of Online Business in Myanmar

Electronic business or "online business" or "e-business" is any type of business or commerce involving the exchange of information over the Internet. Trade represents the exchange of products and services between companies, groups and individuals and can be considered one of the essential activities of any business.

Electronic commerce focuses on the use of information and communication technology to enable a company's external activities and relationships with individuals, groups, and other companies, while e-business refers to conducting business using the Internet. increase. E-business differs from e-commerce because it enables not only online transactions to buy and sell products and services, but also the processing of business processes within the value chain through internal or external networks.

In 1979, entrepreneurs connected televisions to transaction computers via telephone lines, calling it "teleshopping" or remote shopping. Founded in 1995, Amazon started as an online bookstore and has grown to become the world's largest online retailer of groceries, toys, electronics, clothing and more. In 1994, IBM leveraged its base of advertising, marketing and public relation agency into IT solutions and expertise, and began touting itself as the leading provider of business on the Internet under the term "e-business.".

a. Benefit of Online Business

The benefits of implementing e-business tools lie in the streamlining of business processes rather than the use of technology. The e-shop is easy to set up from home. The only requirements are software, device and internet connection. Since the internet is available to everyone at all times, there are no time barriers that location-based businesses can encounter. Products and services are accessible to anyone with an internet connection. E-businesses are less expensive than traditional businesses, but they are expensive to set up. Transaction fees are also cheaper. The biggest advantage is the potential for geographical diversification. Anyone can place an order anytime, anywhere. Digitization is being heavily driven by governments, providing the necessary support. It has great potential to provide access to unknown markets that traditional companies could not. e-business allows companies to reduce inventory by digitizing their assets. E-commerce allows industry players to advertise their product/service offerings at generally lower costs than advertising physical stores. There are some

challenges regarding lack of personal touch and delivery times. There is always a waiting time to receive the product.

b. Myanmar Online Business

According to the Realizing Digital Myanmar Economy Report, mobile phone penetration in Myanmar was increased exponentially in 2018, reaching 105% mobile phone penetration and 80% smartphone penetration. Easy access to high-speed internet offers businesses of all sizes, the opportunity to thrive on new platforms that allow them to buy and sell products and, services with minimal investment.

Online shopping has become a popular shopping method since the Internet revolution. Its convenience is its greatest advantage. Shop in minutes from home or office. Cheap deals and better prices are mostly available online, and many online stores offer discount coupons. Most physical stores have a limited range of products. They can only hold limited items and often have many policies that affect product availability. Shopping online allows shoppers to find many products that they cannot find in physical stores. Shoppers don't have to go back and forth between stores to buy different types of products. Online shopping in Myanmar has become a booming business due to the many advantages of online shopping.

For the payment process, Banks have also started offering Visa and Master card services, allowing people to shop online not only from local websites, but also from overseas stores. However, few stores offer shipping services to Myanmar, and some only accept PayPal for transactions. This has led to the creation of more and more local online shops, offering products from local as well as international brands.

This is increasing the number of online shops on social media. Facebook is becoming the most popular social media platform. Almost every Internet users in Myanmar have a Facebook account, so business owners are doing business on social media and increasing their investment in Facebook advertising. This enables many individuals, especially young people, to open a Facebook online shops and start their own business with little or no capital. All they have to do is to decide what they want to sell and find a supplier for the product. With everything ready, business can be set up in Facebook page and start selling in minutes.

Growing responsiveness to social media communications is one of the factors driving the exponential growth of Myanmar's e-commerce business. In 2019, the government focused on promoting the development of the digital economy by

establishing Myanmar's Digital Economy Roadmap and establishing the Digital Economy Development Commission (DEDC) to boost Myanmar's digital economy. Additionally, online businesses are being embraced as a means of protecting the environment, reducing pollution and reducing the need for new buildings.

c. Useful Website for Online Business in Myanmar

Famous (many follower/reviewer) website for online business is **Alibaba Group's, shop.com.mm**. It is one of the largest e-commerce platforms in Myanmar and boasts cutting-edge technology. Launched in 2012, the application has nearly 30,000 sellers, over 500 brands, above 2 million products and 5 million customers. Offer diverse payment systems such as cash on delivery and weekly promotions for customers. They operate own logistics and delivery system, so the shipping cost is relatively cheap compared to other shipping companies and depending on the place it only takes 1-3 days for the good to be delivered. shop.com.mm is one of the most popular online shopping platforms in Myanmar with over 1 million monthly active users.

Citymall.com is an e-commerce website operated by City Mart Holdings, one of Myanmar's largest retailers. City Mart Holdings started as a modern supermarket in 1996 and soon expanded into other areas of modern retail including pharmacies, bookstores, baby shops, convenience stores, bakeries and coffee shops. CityMart Group stores are mainly located in the cities of Yangon, Mandalay and Naypyidaw. City Mall provides a convenient online shopping experience for City Mart Holdings customers.

Barlolo was founded in 2016. Barlolo has a team of experienced executives dedicated to e-commerce. The site is designed to meet the needs of locals and help local entrepreneurs sell their products for free. Every month, this website has about 50,000 visitors and more than 1,000 Myanmar sellers.

d. Covid-19 and e-business

During the COVID-19 pandemic, the ongoing pandemic has seen more and more people practice social distancing in recent months. Suddenly, the demand for e-commerce has increased. A number of e-commerce start-ups have emerged, coming up with door-to-door delivery services for large-scale grocery deployments. Vans and bikes are taking over the city streets while people stay home. Some delivery companies are even doing freelance rental bikes and taxi drivers to meet the growing demand. The

government believes that now is the right time to boost the development of e-commerce in Myanmar. The COVID-19 Economic Relief Plan (CERP) outlines immediate and short-term measures to be applied by the end of the year. The plan aims to promote innovative products and platforms, including the use of digital payments, encourage retailers to go online, and boost delivery and logistics companies through concrete actions in technology and e-commerce.

CHAPTER IV
SURVEY ANALYSIS

4.1   Survey Profile

This study conducted in Hlegu Township, Yangon. Hlegu is a small city in Yangon Region, Myanmar about 45 km north-east of Yangon. It is located on both sides of the Ngamoyeik River and also administrative seat in Hlegu Township. The Hlegu township's Paunglin Dam and Ngamoeyeik Reservoir supply water to over 28,300 hectares (70,000 acres) of farmland between Hlegu and Mingaladon, and nearly 340 million liters (90 million gallons) of water a day to the people living in Yangon. The majority of the people in the Township live in rural areas with only (14.8%) living in urban areas. In Hlegu Township, there are more females than males with 98 males per 100 females.

Hlegu Township is a rural township in the Yangon region. Despite its proximity to Yangon city, it has not benefited significantly or directly benefited from the increasing urbanization of the capital Yangon. bordering to Yangon City and Yangon City Development Committee (YCDC), but managed separately by its own Township Administration and Development Authority (DAO).

Hlegu municipality is very rural and most of the income comes from small and medium scale agriculture. The community has little, if any, major domestic industry and instead relies on industries located near the border but housed in other communities. Moreover, in recent years Hlegu has hosted a large number of migrant workers who seek to take advantage of the low cost of living in the community while working in the Yangon metropolitan area.

Total Population in conventional households 239458 Number of conventional households 48663. According to census survey (2014) In Hlegu Township, 55.3 per cent of the households use electricity for lighting. This proportion belongs to the middle group in electricity usage compared to other townships in Yangon Region. The percentage of households that use electricity in Yangon Region is 69.3 per cent. the mobile phones possess are 47.9% and Television possess are 60.1%.

4.2   Survey Design

This survey was conducted from the perspective of parents living in Hlegu Township. Hlegu is a small township but mostly rural town with many migrant workers. Mobile phone usage and technological advancements are not only affecting families in urban areas, but also families in rural areas. Therefore, study conducted in Hlegu Township. This study explored parents' perspectives on the effects and usage of mobile phones for children.

This survey conducted in a questionnaire format. The questionnaire was conducted in Myanmar language and then translated back to English. The survey questionnaire consisted of three sections. In the first section obtained parental information was collected based on demographics such as gender, age, education level, employment status, and general mobile phone usage.

The second section are knowledge questions about mobile phone usage and positive and negative and its health effects. The third session is the practice section of parent's perception regarding mobile phone and social media.

All the data were coded, descriptive statistics, number and percentage were calculated appropriately. The detail criteria of respondent's answer were mentioned the specific number are as follow.

4.3   Analysis of Survey Data

Survey results consisted of four sections: demographic characteristics of the respondents, Education and occupation status of respondent's, knowledge on health effects of mobile phone usage and finally the practice, prevention and daily practice factors of mobile usage.

4.3.1   Demographic characteristics of the respondents

According to the survey results, a total of 311 respondents participated in this survey. 63.3% of female respondents and 36.7% of male respondents. It can see that female respondents are higher than male respondents. The ages of all respondents are presented by age group.

Table (4.1)   Demographic Characteristics of the Respondents

No.	Descriptions	Characteristics	Respondents	Percentage (%)
1	Gender	Male	114	36.7
		Female	197	63.3
		Total	**311**	**100.0**
2	Age	18 - 24	31	10.0
		25 - 34	67	21.5
		35 - 44	114	36.7
		45 - 54	51	16.4
		55 - 65	48	15.4
		Total	**311**	**100.0**

Source: Survey Data (2022)

Table (4.1). Respondents age divided into five age groups. The study involved participants from 18 to 65 years of age living in Hlegu Township, Yangon Region. (36.7%) is the highest in the 35-44 year age group and (21.5%) is second highest in the 25-34 year old group.

4.3.2   Education and occupation status of respondent's

In terms of education level, 38.3% of the respondents are graduates, which is also the highest level of education in the table below. 21.9% of respondents are secondary school education. The figure shows that the respondents who have no formal education are very few respondents in Hlegu Township, Yangon.

Survey results show that 16% of respondents are in the private business, and a total number of 34% of respondents are employees with regular income. Among them 28% of respondents are company employees

Figure (4.1)   Respondents' Education Level
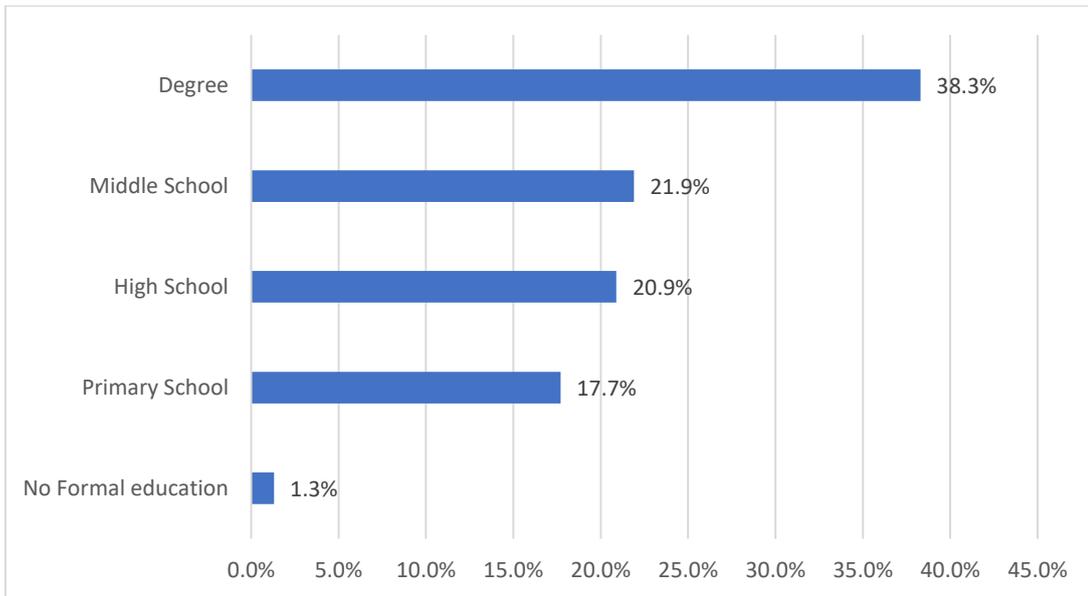
Source: Survey Data (2022)

Figure (4.1) shows respondents by education level. In this figure, 1.3% of respondents have no formal education. And the high school education status is 20.9%. Middle school status is 21.9% and primary school status is 17.7%. The level of education is not entirely different from formal education in the Hlegu area.

Figure (4.2)   Respondents' Occupation Types
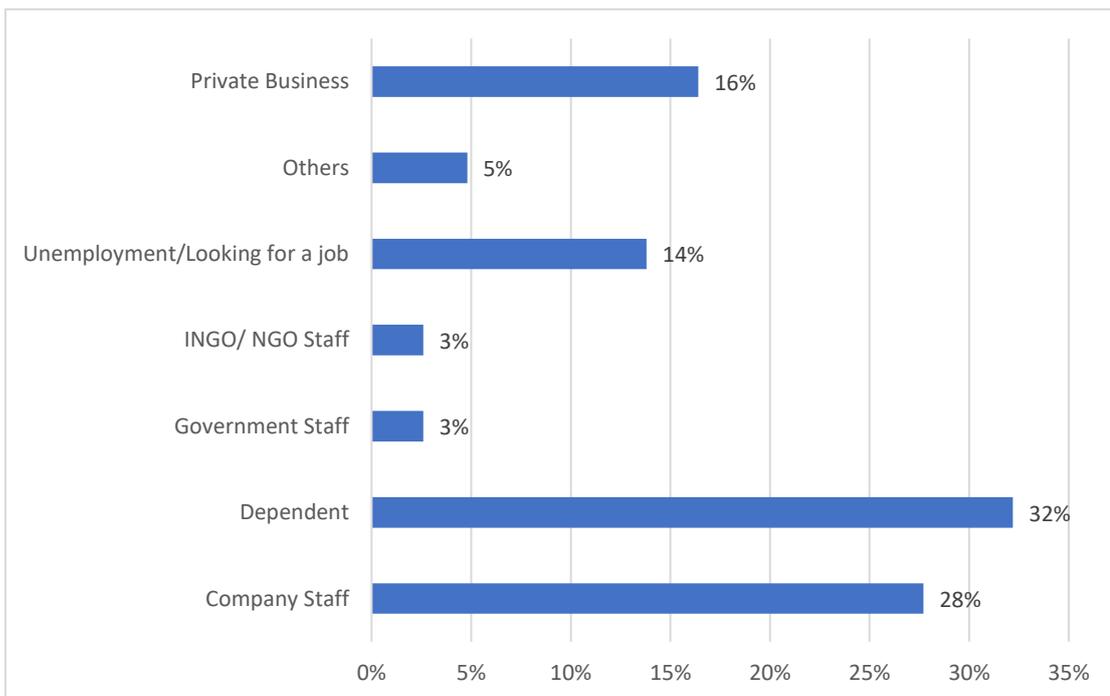
Source: Survey Data (2022)

Figure (4.2) The combination of normal income groups of company staff, government staff and INGO staff is 34% in this figure. 14% of respondents are

unemployed or looking for a job. This means that few respondents have had to struggle to get the jobs they need to support their families. 32% of occupation type is highest number in occupation figure.

4.3.3 Knowledge on health effects of mobile phone usage

According to this figure, respondents who are knowledgeable about mobile phone use and its health effects are overwhelmingly correct in percentage. Respondents have sufficient knowledge to prevent side effects mobile phone use.

Figure (4.3)   Respondents' Correct Answer in Mobile Phone Usage and Health effects
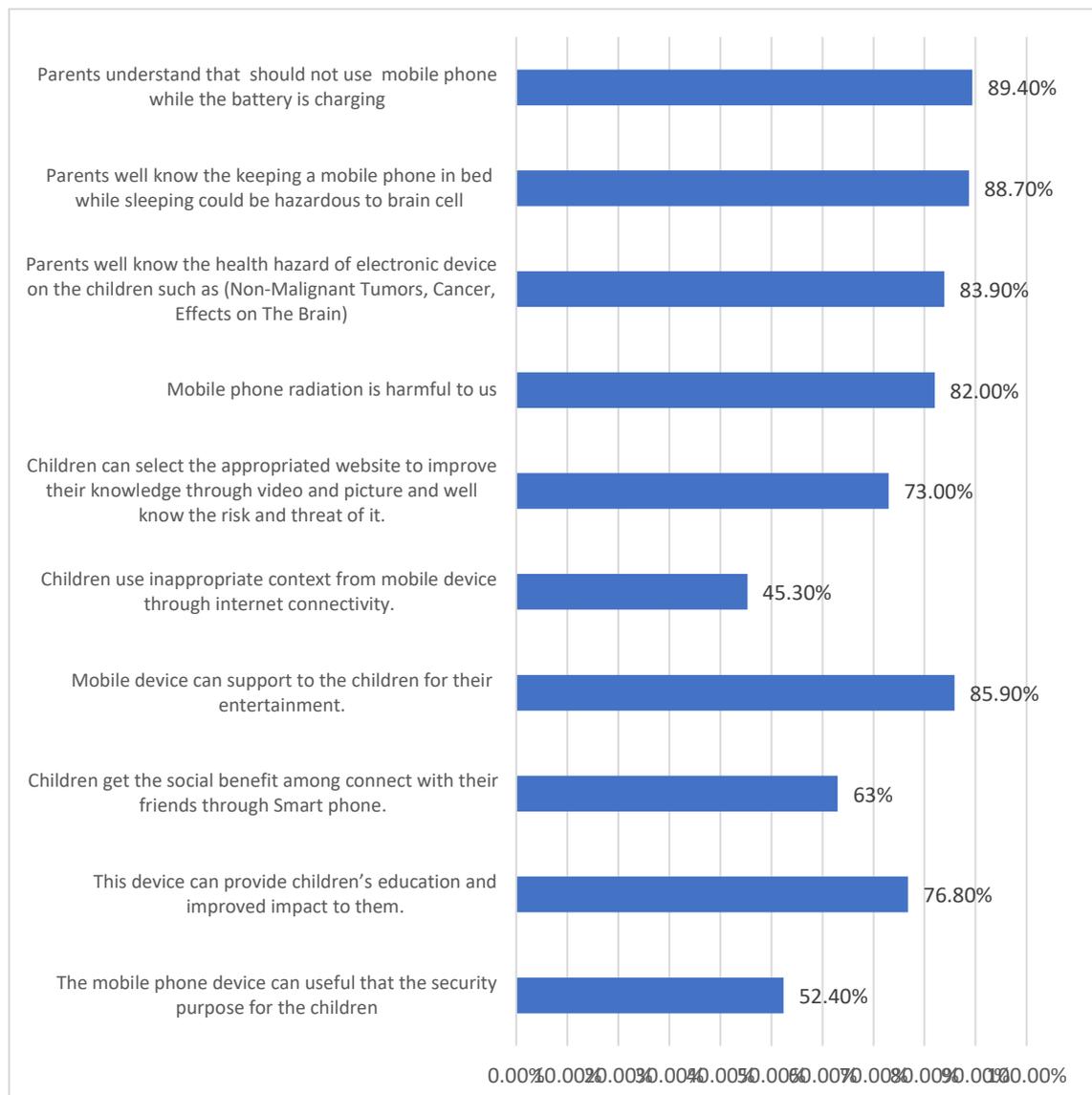
Source: Survey Data (2022)

As a result of the question on mobile phone use and health knowledge, the majority of respondents have in-depth knowledge of mobile phone use and its specific

health effects. They selected the correct answers to questions about mobile phone use and health knowledge. In Figure (4.5), 89.4% of the selected respondents said that should not use mobile phone while the battery is charging. 88.7% of those surveyed are well aware that keeping a mobile phone on the bed while sleeping can be dangerous to brain cells.

Table (4.2)   Respondents' Health Effects

Effects	Frequency	Percentage %
Vision Problem as Physical effects on children	238	76.5%
Sleep-loss as Mental effects on children	210	67.5%
Addicted on Mobile as Mental effects on children	126	40.5%
Academic performance decrease as Social/ Spiritual	176	56.6%

Source: Survey Data (2022)

According to selected respondents, the effects of mobile phone usage is as shown in table (4.2). 76.5% of respondents cited visual impairment as a physical impact, 67.5% of respondents cited sleep deprivation and 40.5% of respondents cited that mobile device addiction as psychological impacts, and 56.6% of respondents cited poor academic performance as social/spiritual impacts.

4.3.4   The practice, prevention and daily practices factors of mobile usage

Regarding mobile phone usage, 64% of respondents allow their children's mobile phones/tablets/iPads/computers to go to school to improve their learning at school. According to parents indicated that their children used mobile phones and social media for learning opportunities, used games for entertainment, and used phones for social communication. Respondents have good knowledge of preventive factors. There are 7 prevention statement, and the result is over 80% in each statement. The respondent is well aware of the benefits of mobile phone usage and its effects on their children learning activities.

Table (4.3)   Respondents' Practices

No	Description	Not Use %	30 minutes - 1 Hr %	1 Hr - 2 Hr %	2 Hr - 3 Hr %	Over 4 Hr %	Everytime %
1	Parents allows the mobile phone/ tablet/ I pad/ computer with children for their school attending and improve learning for their school exercises.	36.3	31.5	18.3	4.8	3.2	5.8
2	Parents allows the mobile phone/ tablet/ I pad/ computer with children for their game play (offline /online/ Network)	47.6%	36.0%	9.6%	2.6%	0.0%	4.2%
3	Parents allows the mobile phone/ tablet/ I pad/ computer with children for their entertainment.	34.7%	50.8%	1.9%	8.4%	0.6%	3.5%
4	Parents allow their children to spend time a phone call for their social communication	39.2%	37.9%	4.5%	1.0%	0.0%	17.4%
5	Parents allow their children to use social media (Facebook, Viber, Tik tok, Instagram, Youtube)	45.7%	39.9%	6.4%	1.3%	0.6%	6.1%

Source: Survey Data (2022)

In table (4.8), 63.7% (198) of parents allow their children to use mobile phones and 36.3% (113) do not allow it. 45.7% of parents do not allow their children to use mobile phones for games and social media.

52.4% of parents allow mobile phones/tablets/iPads/computers to play (offline/online/network) with their children, and 47.6% of parents do not allow them to play games.

For entertainment, parents allow mobile phones/tablets/iPads/computers for entertainment with their children. 65.3% and 34.7%. of parents do not allow to use entertainment.

60.8% of parents allow their children to use their phones for social communication and 39.2% do not allow it. Survey results show that 54.3% of parents mentioned that social media (Facebook, Viber, Tik Tok, Instagram, YouTube) with their children and 45.7% do not allow their use.(tablets, iPads, computers) to children. Also, 63.7% of parents said their children use mobile phones for study purposes, and 54.3% of parents said their children use their mobile phones for social media purposes. Masu

Table (4.4)   Respondents' Attitude on Mobile Phone Usage

Factors	Frequency	Percentage %
Children should minimize the screen time.	291	93.6%
Set family rule on mobile phone usage	277	89.1%
Parents do not allow to keep mobile phone in the bed	286	92.0%

Source: Survey Data (2022)

In table (4.4) 93.6% (291) of respondents agreed with the statement of children should minimize the screen time. There is 89.1%(277) of parents who mentioned that they set family rule on mobile phone usage , 92%(286) of parents who do not allow to keep mobile phone in the bed.

Figure (4.4) Respondents' Prevention on Mobile and Social Media Usage for Children
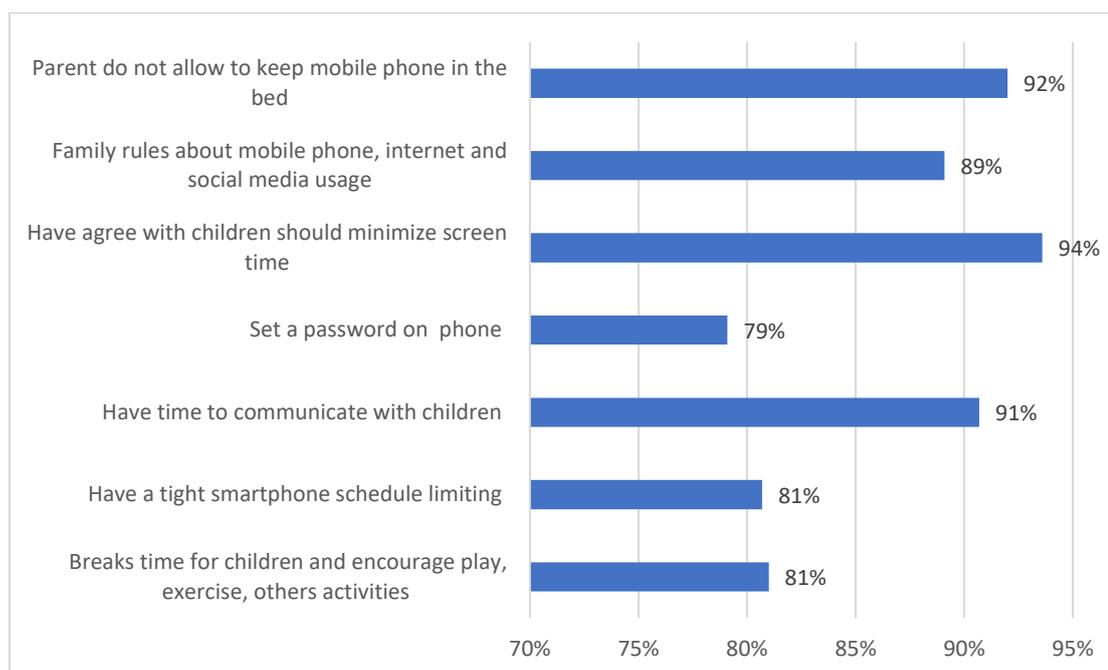
Source: Survey Data (2022)

The results in Figure (4.4) indicate that respondents know how to prevent the risks of using electronic devices and the Internet. The strongest factors are children agreeing that screen time should be minimized (93.6%) and having time to communicate with them (91%). Then (89%) of parents said that Family members set rules for mobile phone, internet and social media use.

Table (4.5) Mobile phone usage of Children a Day

Mobile Phone Usage Hours one day	Frequency	Percentage
Respondents do not allow mobile phone usage for children's learning opportunities in a Day	142	45.70%
Respondents allow mobile phone usage for children's learning opportunities a Day	169	54.30%
Total	**311**	**100.00%**

Source: Survey Data (2022)

Table (4.5) Mobile phone usage of Children a Day (Continue)

47

Mobile phone usage duration in a Day	Frequency	Percentage
Less than 1 hour	124	39.9%
1 hour to 2 hours	20	6.4%
2 hours to 3 hours	4	1.3%
More than 4 hours	2	0.6%
Every time	19	6.1%
Total Usage hour a day	**169**	**54.30%**

Source: Survey Data (2022)

Based on the respondents who answered there, the main factors were that 54.3% of respondents routinely allow their children to use their mobile phones and 45.7% of respondents routinely use their mobile phones. is not allowed. More focus on the child's mobile phone usage time per day is shown in Table (4.3). This shows that 39.9% of her children use their cell phone for less than an hour of a time. Also, from 1 hour to 2 hour usage is 6.4%. Most children spend a lot of time on their mobile phones, but survey results show that parents who are with their children have good habits in terms of daily mobile phone use.

Table (4.6)   Type of Internet for Learning Opportunities

Type of Internet Media	Frequency	Percentage %
You tube	101	32.5%
Google	77	24.8%
Internet Web Site	73	23.5%
Facebook	73	23.5%
Broadcasting (TV/ Radio)	47	15.1%
Wiki	21	6.8%
Instagram	17	5.5%

Source: Survey Data (2022)

According to question 18, respondents allow the use of mobile phones for their children's learning opportunities, leading to the results in the table above. With 32.5% of respondents choosing YouTube site that provides learning opportunities for children, there is more focus on the types of media that provide learning opportunities for children. 24.8% came from Google and 23.5% from internet websites. This can be seen

in table (4.6). 63.7% of parents chose a supported mobile phone to improve their child's education and learning opportunities. 65.3% of respondents indicated that the device is for children's entertainment purposes.

Based on the survey results, 80 percent of respondents were well knowledge about mobile phone use and its effects on children's health (e.g. no mobile phone while sleeping in bed), Survey results show that children are savvy with mobile phone use, the internet and social media. parents perception was that the respondent had a deep knowledge and practice of using the device, and although spent most of the time using the device, spent less than an hour a day

CHAPTER V
CONCLUSION

5.1   Findings

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This study presented parent's perspective to their children's mobile phone usage and the device's effects. The survey was conducted by 311 respondents in Hlegu Township, Yangon. Hlegu Township is located in the northeastern part of Yangon Region. It is located on the outskirts of the Yangon Region, approximately 45 km (27.9 miles) from Yangon City. Located on Yangon Bago Highway Road. Technological advances are changing rapidly, with urban communities making good use of technology and rural communities adopting technology to make an effects.

This study examined whether children are comfortable with mobile phones and social media if their parents allow it. Additionally, the study explores the purpose of mobile phones and their deployment in education, health, and social activities. The survey found that (64%) children use mobile phones. Parents with allow for educational purposes (63.7%) and (54.3%) use social media. On the other hand, selected parents who were aware of the physical effects of mobile devices on their vision problem (76.5%) and the effects of sleep deprivation on their mental health (67.5%).

The study found health effects such as poor sleep, cell phone addiction, visual impairment, and headache/illness from cell phone use. Parents selected for visual impairment (76.5%), poor sleep (67.5%), reliance on mobile devices (40.5%), and poor performance in school (56.6%):

Many people are unaware that mobile phone and internet use can also affect their eye health. Sleep disorders such as insomnia and sleep apnea make it difficult for the body to get the sleep it needs to perform many important functions during the day. Not getting a good night's sleep can make your eyes red, itchy and dry.

When it comes to mobile phone radiation, a child's brain is two to three times more sensitive than an adults of radiation. This is especially noticeable when viewing

virtual reality with your phone next to ear or in front of your eyes. Because children have relatively small heads and brains, they receive the same amount of cell phone radiation as adults, so their brain regions are exposed to higher levels of radiation on average than adults.

In this study of respondents (82%), mobile phone radiation was chosen to be harmful to us. This is strong knowledge and one of the benefits of prevention for children. In addition, (92%) of parents have good habits and do not allow mobile phones to be left on the bed while sleeping.

(40.5%) children were dependent on mobile phones and (30.5%) were absent from social activities. and (20.9%) feel lonely. This percentage was not mentioned in the research analysis due to the small amount. Although this percentage is not large, parents should be aware of their children's strengths and weaknesses and pay close attention to them

Due to the COVID-19 pandemic and hybrid and distance learning models, many children are spending more screen time. So it's more important than ever to use less electronics for the rest of the day. Screens are part of today's culture, but less screen time has health benefits such as better physical fitness, less obesity, and more time to play and explore. It is important to take advantage of breaks to do physical activity.

 The survey found that (93.6%) of parents indicated that they should minimize screen time on mobile phones, games, social media and computers. This was a good result and provided the parents with knowledge about mobile phone usage.

5.2   Recommendations

We live in a technology-filled world, and many of us know our children better than we do. Parents should stay up to date with the latest apps, games, social media platforms and trends. Our future is our children. It is the responsibility of parents to protect their children's development from technological threats. In addition, it is important that parents are well aware of this.

Recommended screen time for children under 18 months should not use screen-based media unless video calling is permitted. Children under the age of 2 must be accompanied by a guardian. Also, a 2 year old to 5 year old can use for 1 hour a day. Children 6 years and older may use hours by parent's rules and restrictions

Too much screen time puts everyone at risk for obesity, can lead to sleep problems and can affect relationships. and its relationship to anxiety, depression, and attention span. Addiction can harm children, so early starting phones use is not appropriate. Children should not be introduced to cell phones until they reach the appropriate age.

Parents should encourage their children to be creative, such as drawing, swimming, painting, gardening, making up stories, reading fairy tales and essays, and playing various indoor and outdoor games. They constantly participate in social media and play online games that can make them anti-social and stifle their creativity.

Otherwise, children should not actively participate in social media, post photos or videos, chat with strangers, or share public posts. Children have to educate about the dangers of the friendly online hunter. Children may not always be mature enough to handle online interactions and may be vulnerable to cyberbullying

As parents, need to recognize their children's strengths and weaknesses and help them achieve their goals from the very beginning of life. A child's healthier development depends on parental effort and education. Parents are every child's first teachers and should act as friends, guides and leaders to make them productive.

To be accountable, both parents and children set expectations and goals and consciously reduce their screen time. As parents spend more time, start setting smaller, more attainable goals. Make time to talk face-to-face with children each day after school or work to ensure they get their full attention. Making family dining area a phone-free zone is an easy way to get started. Turning off the phone and going for a walk or playing outside can increase endorphins, create a happy mood in brain, and improve the physical health.

Survey results show parents are well aware of the benefits and challenges of mobile phone use, mobile devices, the internet and social media. They know what factors are detrimental to the child's health, what factors are opportunities for the children. Some practices are very powerful in protecting children from the threats of advanced technology. Strong knowledge and good practice must be maintained for years to come.

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APPENDIX A

Questionnaire No. .------------   Date : -------------

      This questions purpose for the analysis of the parent's perception of the children and electronic device mobile phone usage and would like to analysis how many children have influence in their daily life by electronic devices such as mobile phone game, internet game, iPad, tablet, computer etc. in Yangon township. These questionnaires will use for research paper only and answers will be confidential. Respondents must be parents who have children live with together. It take time for 15 minutes only.

Section –1 Beneficiary profile

1.   What is your age? (Completed years)

    ☐ 18-24   ☐ 25-34   ☐ 35-44   ☐ 45-54   ☐ 55-65

2.   What is the highest level of formal education you have completed?

    ☐ Master Degree

    ☐ Degree

    ☐ Diploma

    ☐ High School

    ☐ Middle School

    ☐ Primary School

    ☐ No education

3.   Are You working?

    ☐ Private Business

    ☐ NGO/INGO Staff

    ☐ Government Staff

    ☐ Company Staff

    ☐ Student

    ☐ Dependent

    ☐ Unemployment

☐ Looking for a job

☐ Other -----------

4. Related with Children

☐ Father   ☐ Mother

5. A). Family size of the respondent

☐ 1-3

☐ 3-5

☐ 5-8

☐ 8-11

☐ 11-14 and ☐ above

B). If there two and above children pls focus on the youngest child

☐ Youngest Boy/Male   (Age) ------

☐ Youngest Girl/Female   (Age) -------

6. Have you ever been to provide mobile phone for children?

☐ Yes   ☐ No

7. Have you allowed your children use with mobile
phone(mobile/Tablet/Ipad/Computer) in your family?

☐ Yes   ☐ No

8. How long have you been your children use mobile phone a day?

☐ under 30 minutes

☐ 30 minutes to 1 Hour

☐ 1hour to 3 hour

☐ 3 hour to 5hr

☐ 5 hour to 8hr

☐ 8hour above

9. Have you allowed your children use Online game, Internet and social media?

☐ Yes   ☐ No

10. Have you been your children play with their friends such as running, football playing, Jumping, Drawing, Colouring, playing with toys etc. ?

☐ Yes   ☐ No

Section-2 Knowledge and prevention

11.   Knowledge Question

No	Description	Yes	No	Don't Know
a	The mobile phone device can useful that the security purpose for the children			
b	This device can provide children's education and improved impact to them.			
c	Children get the social benefit among connect with their friends through Smart phone.			
d	Mobile device can support to the children for their entertainment.			
e	Children use inappropriate context from mobile device through internet connectivity.			
f	Children can select the appropriated website to improve their knowledge through video and picture and well know the risk and threat of it.			
g	Do you provide expensive mobile devices and other accessories to your children?.			
h	Is mobile phone radiation harmful to us?			
i	Do you agree that Parents well know the health hazard of electronic device on the children such as (Non-Malignant Tumors, Cancer, Effects on The Brain)			
j	Parents well know the keeping a mobile phone in bed while sleeping could be hazardous to brain cell			

k	Parents aware do not use mobile phone while charging the battery			
l	Have you experienced your children have electric shocked the mobile phone use while charging?			
m	Have you experienced your children have any accident the mobile phones use while walking?			
n	Have you experienced your children have any eye tension or insomnia after using mobile phone longer than 2 hours?			

12. What kind of factors are effect to children by using mobile phone? (select multiple)

☐ Children's physical

☐ Children's mental

☐ Children's social/Spiritual

☐ ☐ others …………………… (Please Specify)

☐ don't know

13. What kind of physical effect by using mobile phone? (select multiple)

☐ Vision Problem

☐ Risk of Cancer

☐ Accident

☐ Health condition (headache /illness / other disease)

☐ Obesity

☐ others …………………… (Please Specify)

☐ don't know

14. What kind of mental effect by using mobile phone? (select multiple)

☐ sleep-loss

☐ addicted on mobile

☐ depression

☐ Anxiety

☐ suicidal ideation/self-harm

☐ others …………………… (Please Specify)

☐ don't know

15. What kind of Social/Spiritual effect by using mobile phone? (select multiple)

☐ Academic performance decrease

☐ Loneliness

☐ away from social activities

☐ Tumours

☐ Cyberbullying

☐ others …………………… (Please Specify)

☐ don't know

16. What kind of benefit are children by using mobile phone? (select multiple)

☐ Increased Social Interaction

☐ Safety and Security

☐ Learning Responsibility

☐ Technological Savvy

☐ Educational Support

☐ others …………………… (Please Specify)

☐ don't know

17. Do you agree to get the learning opportunities for children from Internet media through mobile phone/Computer (multiple choice)?

☐ Yes   ☐ No If yes please select No. skip

☐ Internet Web site

☐ Facebook

☐ Google

☐ Wiki

☐ Instagram

☐ YouTube

☐ Broadcasting (TV/Radio)

☐ Other…………………… (Please Specify)

18. How long do you allow to use mobile phone a day for your children learning opportunities?

☐ under 30 minutes

☐ 30 minutes to 1 Hour

☐ 1 hour to 3 hour

☐ 3 hour to 5 hr

☐ 5 hour to 8 hr

☐ 8 hour above

19. Do you have Provide breaks for children and encourage play, exercise, and vigorous activity.

☐ Yes   ☐ No

20. Do you have a tight smartphone schedule limiting your use of the phone? For example, don't talk on the phone while eating, don't watch computer or talk on the phone before bed.

☐ Yes   ☐ No

21. Do you have time to communicate with children and you are aware of the negative health effects of mobile phone use?

☐ Yes   ☐ No

22. Have you ever used mobile and media technology as an emotional pacifier? (eg. Using a device to distract your child dressing, or traveling)

☐ Yes   ☐ No

23. Have you set a password on your phone so your child can't use it while you're away?

☐ Yes   ☐ No

24. Do you agree with that your child should minimize screen time on mobile phones, games, social media, Computer, etc.?

☐ Yes   ☐ No

25. Do you agree set family rule about mobile phone, internet and social media usage?

☐ Yes   ☐ No

Section –3 Practice on electronic devices and mobile phone usages

26. Practice Question to Parents

No	Description	Not Use	Every time	Between 30 minutes to 1 hour	Between 1 hour to 2 hour	Between 2 hours to 3 hours	Over 4 hours
1	Parents allows the mobile phone/ tablet/ I pad/ computer with children for their school attending and improve learning for their school exercises.						
2	Parents allows the mobile phone/ tablet/ I pad/ computer with children for their game play (offline /online/ Network)						

No	Description	Not Use	Every time	Between 30 minutes to 1 hour	Between 1 hour to 2 hour	Between 2 hours to 3 hours	Over 4 hours
3	Parents allows the mobile phone/ tablet/ I pad/ computer with children for their entertainment.						
4	Parents allow their children to spend time a phone call for their social communication						
5	Parents allow their children to use Social Media (Facebook, Viber, Tik tok, Instagram, YouTube)						
6	parent permit to use mobile phone before sleep						
		Never	Ever	1 day a week	2/3 days a week	4/5 day a week	
7	Parent allow to keep mobile phone in the bed						

No	Description	Not Use	Every time	Between 30 minutes to 1 hour	Between 1 hour to 2 hour	Between 2 hours to 3 hours	Over 4 hours
8	Parents regularly provide the charges of bill and other accessories (hand free, Bluetooth) expenses for their children.						
9	Parents set the family rules about phone, internet usage						
10	Parents regularly check the children's mobile phone/ tablet/ I pad/ computer (call, message, bill, chatting message etc)						