



ADDIS ABABA UNIVERSITY
COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES
SCHOOL OF INFORMATION SCIENCE

**SOCIAL MEDIA IMPACT ON ACADEMIC PERFORMANCE OF
SECONDARY SCHOOL STUDENTS: THE CASE OF AYERTENA
SECONDARY SCHOOL**

BY

SADIYA TEMAM(GSR/5673/13)

**SEPTEMBER 2023
ADDIS ABABA, ETHIOPIA**



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Advisor: MILLION MESHESHA(Ph.D.)

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DECLARATION

I, Sadiya Temam, hereby declare that this thesis, entitled "SOCIAL MEDIA IMPACT ON ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS: THE CASE OF AYERTENA SECONDARY SCHOOL", submitted in partial fulfillment of the degree of Master of Science in Information Systems from the School of Information Science of Addis Ababa University, is the product of my research. With the help and advice of my research advisor, I conducted the study. Citations with clear references are used to acknowledge other sources. There is also a list of references. The document has not been submitted to any university or academic organization for the award of any other qualifications.

Signature: _____

SADIYA TEMAM

This thesis has been submitted for examination with my approval as university advisor.

Advisor's Signature: _____

MILLION MESHESHA (Ph.D.)

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ABSTRACT

Nowadays social media become part of human day-to-day activities, including students. Findings of different studies show that teenagers use social media in their daily activities. Studies also indicate that social media has both advantages and disadvantages. The advantages are supporting students' academics through applying for teaching aids like group discussion, and the disadvantages are wasting students' time, and thereby lack of focus on their academic study. Ethiopia's young people are engaged in an enormous use of social media. Most of these youths and teens are students who are engaged in accessing and using social media. Because of these researchers assess the relationship of social media use with the academic performance of students. Academic performance or achievement, which measures how well a student, teacher, or institution meets its learning objectives, is used to measure the results of education.

The objective of this study is to investigate the impact of social media on the academic performance of secondary school students and to propose a framework for the proper use of social media.

A quantitative research approach is adopted in this research. With the research goal actionable insight is tied to a statistical conclusion. It is done at Ayertena secondary school students by collecting data via questionnaires from 351 social media users from 9th to 12th-grade students.

The analysis results reveal that social media use has a significant impact on the academic performance of secondary school. The research investigates the impact through four factors of social media use which are knowledge, communication, pastime, and entertainment. There is no significant relation between those who use social media for communication and academic performance. As the average time they spend on social media increase, their academic result decreases. Based on the result, a framework was proposed for improving social media use by Ayertena secondary school students. The researcher adopted an acceptable use policy and the analysis result for framework design. The variables are the social media use factor (for knowledge) and average time spent in a day on social media that has a relation to giving results of above a very good academic performance. It was proposed that management assistance, School readiness and students' readiness would enhance improved social media use.

A survey questionnaire was used to validate the framework among experts and users. The experts and users that analyze the framework on average come up with highly positive results. All of them concurred that it would be beneficial for social media use without having an impact on student's academic performance.

Keywords: - social media, academic performance, secondary school students

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

1.1.1 SOCIAL MEDIA

Social media refers to the various kinds of Internet communication channels used by people for building networks, groups, and collectives to exchange knowledge, concepts, texts, or other types of content such as videos (Matthew, J. 2015).

As a result, many items can be categorized as social media platforms, including emails to clients who use Gmail, profiles on numerous platforms like Facebook and LinkedIn, messaging apps like WhatsApp and Viber, and YouTube. However, there are many more social networking sites available, particularly when you start to consider how individuals use social media globally (Matthew, J.2015).

Typically, the development of social media is traced back to Samuel Morse's first telegraph, which he sent between Washington to Baltimore in 1844. Many people consider it the beginning of the history of social media. However, according to the concept of social media, this form of communication is not considered social media. First off, that hasn't happened online, and secondly, telegraphs don't contribute to a bigger group or community. They are accustomed to communicating with one another via a single message. Consequently, while it is intriguing to see social media history as a part of a much larger continuum, the genuine timeline starts in the late 1970s when the internet was born (Matthew,J. 2015).

A website called Six Degrees and Friendster, the first two social networking sites, were introduced in 1977. Then the revolution started, with millions of users able to register for an email account or start a chat session online. They have been able to communicate over the Internet, including email, chat rooms, and message boards (zhangy, 2022). In the contemporary world, a variety of social media platforms provide a range of services. The world has been ruled by them.

1.1.2 SOCIAL MEDIA USE IN ETHIOPIA

Emperor Menelik II introduced telecommunications service in Ethiopia in 1894 when the construction of the telephone line from Harar to the capital city, Addis Ababa, was constructed. Then the interurban network continued to expand satisfactorily in all other directions from the capital. Many important centers in the Empire were interconnected by lines, thus facilitating long-distance communication with the assistants or operators at intermediate stations frequently acting as verbal human repeaters between the distant calling parties (History – Ethio telecom, 2023). Ethiopia was home to 6.40 million social media users in January 2023, equating to 5.1 percent of the total population. A total of 66.80 million cellular mobile connections were active in Ethiopia in early 2023, with this figure equivalent to 53.5 percent of the total population. There were 6.15 million users aged 18 and above using social media in Ethiopia at the start of 2023, which was equivalent to 9.2 percent of the total population aged 18 and above at that time. More broadly, 30.7 percent of Ethiopia's total internet user base (regardless of age) used at least one social media platform in January 2023. At that time, 34.1 percent of Ethiopia's social media users were female, while 65.9 percent were male. (*Digital* , 2023)

1.1.3 SOCIAL MEDIA USE BY SECONDARY SCHOOL STUDENTS

According to statistical data, there has been a periodic increase in the number of social media users. According to the analysis in October 2022, there will be 4.74 billion social media users worldwide, accounting for 59.3% of the world's population (DataReportal, 2022).

About 15% of people spend most of their day online, according to the most recent research from the Global Social Media Statistics. In light of this, social networks are used daily for an estimated 10 billion hours worldwide, or nearly 1.2 million years of human history (DataReportal, 2022).

Given that Ethiopia is a developing nation, it is impossible to state that social media is not a part of people's lives. There has been little research done in this field. However, In January 2022, there were 29.83 million internet users in Ethiopia, according to an analysis of statistical data from Digital Report. The country's median age is 19.9, 11.3 percent of its population is between the ages of 13 and 17 and 14.5 percent is between the ages of 18 and 24. The investigation done by Hussain, (2018) drew three targeted populations, teenagers who frequently visit cybercafés, older youths

who use cell phones, and laptop-using professional youths. The finding of the study indicates that young people in Ethiopia utilize social media extensively.

Social media is playing an important role in today's youth culture. Studies have shown that 90% of young people aged 13 to 17 use social media. 49% of respondents said that they visited a social networking site at least once per day, and 75% claimed to have several active social media presences. About two-thirds of the population are aged between 15 and 19 years old and own a cell phone with internet access. In general, teenagers spend about nine hours on the Internet every day without including time devoted to homework. (AACAP, 2018). The majority of these young people who access and use social media are students.

1.1.4 THE ETHIOPIAN EDUCATIONAL STRUCTURE

In the Ethiopian educational structure, there are pre-primary education, primary education, secondary education, vocational education, and tertiary education.

Primary Education

Children between the ages of 4 and 6 are enrolled in pre-primary schooling. Education in primary schools is divided into two cycles. Between the ages of seven and twelve, for classes one through six, and thirteen and fourteen, for grades seven and eight. After grades 6 and 8, regional exams are held (Ethiopia Education System, 2023).

Secondary Education

Middle school, often known as lower secondary school, and upper secondary school make up secondary school. Middle school is two years long. The first two years of the four-year secondary education program are covered by students at lower secondary schools. Students are typically in grades 9 and 10 and range in age from 15 to 16. The two-year period leading up to the national exam is for upper secondary school students, who are in grades 11 and 12 and are between the ages of 17 and 18. The Ethiopian School Leaving Certificate is taken by the students. The final test requires passing at least five subjects (Ethiopia Education System, 2023).

Vocational Education

There is also a 2- or 3-year vocational stream available in the sectors of teaching, business, technology, agriculture, and military training. Students who complete the vocational route are awarded a Technical and Vocational Education Diploma, Teacher Training College Diploma, or equivalent. Although vocational training can lead to employment, it does not provide entry to higher education (Ethiopia Education System, 2023).

Tertiary Education

The Teacher's Qualification requires 1 year of education at a teacher college, the Diploma Advanced is 2 or 3 years of training offered by engineering and technical institutions, health and business schools, agricultural colleges, etc. which are all options for tertiary education (Ethiopia Education System, 2023).

For programs in the humanities, sciences, and education, the bachelor's degree takes four years; for programs in pharmacy, engineering, architecture, and law, it takes five years; and for programs in medicine and veterinary medicine, it takes six years. The second university degree offers certificates of specialization/specialization diplomas, which are three years beyond medical programs, along with master's degrees, which last for two years beyond the bachelor's degree. A doctorate requires between 3 and 5 years of study following your master's degree. (Ethiopia Education System, 2023).

Table 1. 1 Ethiopian education structure

Education	School/Level	Grades	Age	Years	Notes
Preprimary		1-6	7-12	6	In grade 6 they take the regional exam
Primary		7-8	13-14	2	In grade 8 they take the regional exam
Secondary	lower Secondary	9-10	15-16	2	

Secondary	Upper Secondary	11-12	17-18	2	Ethiopian School Leaving Certificate (ESLC)
Vocational	(TVET) Level III Diploma			3	
Tertiary	Bachelor of Education			3-4	
Tertiary	Bachelor of Arts/Science			3-5	
Tertiary	Master			2	
Tertiary	Doctorate			3-5	PhD

1.1.5 ACADEMIC PERFORMANCE

The achievement of students on a broad range of academic subjects is measured by the performance of their Academy. To assess students' progress, teachers often use standardized test scores and classroom performance. Several metrics, such as grade point average (GPA), annual standardized examinations, and university entrance exams, can be used to assess student academic performance. The secondary school system in Ethiopia ranks students from excellent to failing. This evaluation of academic performance occurs after a subject has been finished. Secondary schools evaluate students using a variety of techniques, including tests, class activities, homework, and assignments (Ethiopia Grading System, 2023).

Table 1. 2 Ethiopian General Secondary Education Certificate

Grade	Scale	Grade Description
A	90.00 - 100.00	Excellent
B	80.00 - 89.99	Very Good
C	60.00 - 79.99	Good
D	50.00 - 59.99	Satisfactory

E	0.00 - 59.99	Failure
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1.2 STATEMENT OF THE PROBLEM

Very little research has been done on the subject of rapidly evolving social media and its effects on young people. Young people have an increasing possibility to utilize social media, and it is vital to understand how this will impact their way of life (Hussain, 2018).

The researcher was able to discover opposite findings on the impact that social media has on academic achievement from these types of research. Zewdu, Dadi, Taye, & Gezu, (2017) found that students who frequently used social media had lower grade point averages than those who visited these sites only occasionally or infrequently. The researchers advised female university students to use social media for academic purposes only and to set time limits. The findings of this study confirm those of Tamayo (2014), who hypothesized that students' use of social media may have an impact on their academics. On the other hand, there is a study by Legesse, (2016) revealed that there is no relation between social networking sites' use and academic performance.

According to Simsek's (2017) study being a university or secondary school student has no bearing on the level of social media addiction, which also revealed that secondary school students are not exempt from the social media flood. Hussain (2018) calls for more research to thoroughly examine the opportunities and difficulties that social media truly presents to students and other users.

A total of 896,520 secondary school students in Ethiopia sat for the 2021/22 grade 12 national exam, but 29,909 students, or only 3.3 percent of the total students scored 350 and more. This shocking exam result indicates that there should be a lot of factors affecting their academic result. In the research literature review, it is identified that social media has an impact on academic performance. So, it is asked if social media use has a contribution to their academics. Ayertena secondary school students' academic performances and grade 12 national exam results are similarly falling from time to time.

Social media has a detrimental effect on students' academic performance at higher education institutions, claims a study by foreign researchers Habes, M., et al. (2018). According to the report, a sizeable percentage of college students use social media, with Facebook receiving special attention, which has a negative effect on their academic performance. As a result of their findings,

researchers recommend establishing an educational program to enhance academic performance and figuring out how to control how much individuals use Facebook for entertainment.

Khan, (2019) found that the most significant factors for how social media affects students' academic performance are Time Waste, Cause of Distraction, and Reduced Language Command, although the variable of Reduced Real Human Contact is not significant. It notes the potential for further research and the fact that more variables and over 200 pieces of data can be obtained by another researcher. It is anticipated that the results will change as the sample size is increased.

Deferent results from the research done by Amin, Z et al. (2016) focus on determining how social media networks such as Facebook, Twitter, Google+, and Skype affect students' academic performance in universities and colleges. These sites are believed to draw students' attention to their studies and positively affect their grade score averages. The research takes two variables social media as an independent variable and students' performance as an independent variable so the researcher indicates variables to be included for future work.

The University of Raya's female second-year students were the subject of a study by Ethiopian researcher Abrha,(2019), who found that those who regularly used social media for school-related matters had higher grade point averages than those who did not. In light of this, the researcher advised university-bound female students to use social media only for educational purposes and to set time limits. Others researched the effects of social media on the academic performance of grade 12 students at Addis Ketema Preparatory School and found that the quantity of time students spent on social media had a deleterious effect on their grades (Alemayehu, M. et al. 2023). According to the findings, it is advised that students be informed of the negative consequences of excessive social media use and encouraged to engage in productive activities on it.

Generally, there isn't much literature on this subject in Ethiopia. Researchers advise conducting more research there. So, the study aims to investigate the impact of social media use on the academic performance of Ayertena Secondary School.

1.3 RESEARCH QUESTIONS

To investigate the problem, this study attempts to answer the following research question.

1. What is the relationship between the factors of using social media and the academic performance of secondary school students?
2. What is the relationship between the Average time spent in a day on social media for entertainment and the academic performance of secondary school students?
3. What mechanisms should be suggested to improve social media use?

1.4 OBJECTIVE OF THE STUDY

1.4.1 GENERAL OBJECTIVE

The general objective of this study is to identify the impact of social media on the academic performance of secondary school students so as to propose an improved social media use framework.

1.4.2 SPECIFIC OBJECTIVES

To achieve the general objective of the study, the following specific objectives are attempted

- To review literature to identify variables and methods to use.
- To prepare questionnaires for data collection.
- To identify the factors of using social media and its impact on the academic performance of secondary school students.
- To identify the Average time spent on social media and its impact on the academic performance of secondary school students.
- To propose a framework for improved social media use.
- To evaluate the proposed framework.

1.5 SCOPE AND LIMITATION OF THE RESEARCH

The study investigates the use of social media impact on the academic performance of secondary school students. The study focuses on secondary school students and takes a sample from Ayertena secondary school in Addis Ababa in 2015 E.C.

The scope of the study is limited to studying the impact of social media on the academic performance of Ayertena secondary school students and proposing a framework that can enable to address the issue of social media impact on academic performance practically focusing on the

research data analysis result such as a factor of social media use and average time spent on social media in a day.

1.6 SIGNIFICANCE OF THE STUDY

The results of the study provide a significant contribution to students, parents, and school management. For other researchers who can carry out similar research, it may also serve as a reference.

The students will be able to see whether or not their social media usage is having an impact on their academics. The parents would decide to control and pay attention to their children.

The secondary school student's administration could use the findings and framework to generate rules and regulations or advise on the use of social media. In addition to the above listed the Ministry of Education can take the output and framework as an input for its work in school policies. The findings of the study might inspire programmers to create social media and applications that could improve students' knowledge and skills.

1.7 ORGANIZATION OF THE THESIS

The thesis is divided into five chapters: Chapter 1 provides the background of the study; Chapter 2 illustrates the review of conceptual literature and related works to comprehend the nature of the problem; Chapter 3 describes the methods used to address the study's primary objectives; Chapter 4 provides the results section, in which the statistical analysis output will be fully explained and discussed with the framework design and evaluation.; and Chapter 5 concludes the thesis.

CHAPTER TWO

LITERATURE REVIEW

In this chapter a literature review was performed for having the overview of the study. Obtained information aimed to provide the foundation for the impact of the use of social media on the academic performance of secondary school students.

2.1 SOCIAL MEDIA

The term "social media" describes a wide range of web- and mobile-based services that enable users to participate in online conversations, provide user-generated content, or engage with online communities.

Examples of social media platforms: -

Facebook

When Mark Zuckerberg first introduced it in 2004, there were more than 2 billion users who were actively using it. A range of features, such as online chatting, and media sharing, from marketing to launching pages, group creation, and donation can be accessed by users on this platform. It is offered free of charge for all these services (zhangy, 2022).

Instagram

It was founded in 2010 by Kevin Systrom, was acquired by Facebook in 2011. It was originally designed to be a site where photos can be shared, but it has evolved into the world's most popular website for pictures and videos. It has become one of the top choices for brands because they can easily reach their audience without having to meet them in person. To be famous on Instagram has its advantages, and the purchase of Instagram likes and comments is a requirement that everyone asks for (zhangy, 2022).

TikTok

TikTok is a modern social media platform that was introduced in 2016 by the Chinese technology company Byte Dance. This software, which merged with Musical in 2018, allows users to share

brief videos. In nearly every corner of the globe, it's gaining popularity. Over 1.5 billion users have been registered on this platform (zhangy, 2022).

Telegram

The telegram service lets you send and receive messages from contacts, without sharing your phone number. In 2013, Pavel and Nicolai Durov set up the program, which was an alternative for communicating outside of WhatsApp. This way you'll be able to send messages, videos, voice records and so much more from the cloud itself. And you will also be offered the option to end your encryption so that nobody else knows what you're talking about. You can use Telegram for many things, some of which are: sending messages, and string files, creating super groups, organizing your chats in folders, and creating channels (Roca, 2022).

YouTube

Users of the popular video-sharing website YouTube can post videos and share them with anyone who has a link to the site. You can publish and embed these videos on your website. In 2005, former PayPal workers began working at YouTube, and in 2006, Google acquired the business. Communication and marketing have suffered a great deal. Voting and sharing on YouTube have occasionally led to the discovery of fresh talent in simpler videos. The YouTube advertising revenue share program, on the other hand, enables YouTube celebrities to profit from the videos they post to the service (Rouse, 2016).

The ability to create, exchange, or trade knowledge, ideas, photographs, and videos in virtual communities and networks is provided by these computer-mediated online technologies. They are a collection of web-based tools that let users communicate using text, images, music, video, animation, and graphics. The social media universe is enormous. More people utilize social media than live in some of the most populous countries in the world.

In October 2022, the analysis of data showed that 4.74 billion people around the world used social media, representing 59.3 % of the total global population. In the last 12 months, it has seen over 190 million new users join social media since 2022, and that number continues to grow. (DataReportal,2022).

2.2 SOCIAL MEDIA USE AMONG STUDENTS

The findings of Melanie and Andrew's research in 2017 are consistent with those of Olubiyi (2012), who found that students today have practically been online as a result of the intense use of social media. Some students were reported to be frequently streaming or using Facebook during lectures, even in classrooms and lecture halls. The time that should have been devoted to learning, research, and innovation has been wasted obsessing about finding new friends on the Internet or spending much time discussing meaningless topics.

In a study done Tezci, (2017) to ascertain secondary school students' social media usage, Data from a total of 853 students were gathered (419 female and 434 male). To gauge why students, use social media and to identify the most commonly used social media platform. Data are gathered by assessing reasons for Social Media usage. According to the findings, among the students who took part in the survey, "YouTube" and "Facebook" were the two most popular social media platforms. Less popular social media platforms are "Myspace" and "LinkedIn". Students use social media most frequently for enjoyment, information exchange, and opinion gathering.

Another research was done by Martin , (2018) surveying 593 middle school students concerning social media-related digital concerns. It was found that these secondary school students used social media most frequently to communicate with friends, post images, and know about other individuals' activities. They've identified the biggest number of users on their social media sites as Instagram 27%, Snap Chat 25% and YouTube 25%. The Comparison between the findings Martin,(2018) and Tezci,(2017) the results shows that most used social media by students are different.

The study was carried out by a researcher Vicera, (2016) to determine the impact of Social Networking Sites on students' educational performance as a result of socioeconomic characteristics, usage patterns, and their addictive nature by analyzing their effect on student academic performance. The age range for respondents from 15 to 17 years was between 75 % and 70 % of the overall respondent population when it came to social demographic characteristics. This study noted in its conclusion that, of the fifty respondents who participated in the survey by responding to questionnaires provided by the researcher, 66% were most likely not addicted to social media, 30% may be addicted, and 4% were likely to be.

The other researcher Hussain, (2018) investigated on youths of Ethiopia by including the teenagers in their communication on social media. He ends his research by stating for future researchers that one can locate that adults must be cognizant on knowledge what teenagers and teens do with the media. He said it's miles vital to understand what youths do with media that allows you to feel the effects. Youths use social media to gain facts with multiple resources. They broaden social connections and expand their peer primarily based expression of the hobby. Through organizing self-directed learning, teens enjoy entertainment and leisure. It's far their domain of freedom from which they often share their creations. Those vital components called by the researcher for similar further research which will deeply look at the real opportunities and challenges of social media.

2.2 SOCIAL MEDIA USE AND STUDENT ACADEMIC PERFORMANCE

Academic performance is when the result of education or achievement is measured, in terms of how well a student, lecturer, or institution has met its learning objectives. The Ministry of Education, the schools' teachers and admins, students, and even parents are working to meet this learning objective.

Social media has become an integral part of students' lives, often influencing their academic performance in various ways. On one hand, platforms like Facebook, Instagram, and Twitter can serve as valuable tools for collaboration and communication among peers, allowing students to share resources, discuss assignments, and form study groups. Research indicates that when used effectively, social media can enhance learning experiences and foster a sense of community among students (Mikail & Arikan, 2021). However, excessive use can lead to distractions, reducing the time and focus students dedicate to their studies.

Social media has significantly impacted students' daily lives today. The conclusion of Melani et al., (2017) study demonstrates that students' social network addiction has a major impact on their academic performance.

On the other hand, the potential negative impacts of social media on academic performance cannot be overlooked. Studies have shown that high levels of social media engagement can correlate with lower academic achievement, as students may prioritize online interactions over their educational responsibilities (Karpinski & Duberstein, 2009). The constant notifications and the addictive nature of these platforms can disrupt concentration, resulting in incomplete assignments and poor

time management. Therefore, while social media can offer benefits, it also poses significant challenges that students must navigate to maintain their academic success.

2.3 SOCIAL MEDIA AND EDUCATION

To meet increasing student demands, schools and institutions nowadays face a wide variety of technological advances and changes in procedures for improving teaching methods. Schools are taking advantage of the use of social media as teaching aids (Tamayo, 2014). Technological development has brought about a change in the world faster than ever; technology is now being used as an important medium for exploring large areas of knowledge.

There is a collaborative idea for students' use of social media for their academy (Ebubechukwu,2018). The analysis of the association between collaborative work and students' academic achievement demonstrates that the two variables are positively related. There is also a recommendation mentioned in research that social media can be used for education support. The research by Peter, (2015) recommended that teachers and parents monitor students' use of social media for educational purposes and that additional pages should be added to social networking sites to improve learning and prevent academic failure.

2.4 FACTORS OF USING SOCIAL MEDIA

There are increasing numbers of social media users daily. To find out why people use social media, some research is carried out. The results show that there are a lot of different reasons for people. The study done in Norway by Brandtzæg et al., (2009) investigated the motivational reasons of people who use social media. In total, 12 different reasons (defined as important purposes for using social media) were identified. The result shows this motivation may be placed at a higher level of understanding to obtain more detailed information. Based on the Uses and Gratifications of U&G theory, there are four important motivational needs: information, entertainment, social interaction, and personal identity. The research is telling us why people are taking part in networking sites, and what makes a U&G framework work very well. Research done on 60 college students by Talaue et al., (2018) tried to answer the research question “Why do students use social media?” its result revealed that most of the respondents said that they are using it for communication; and watching movies and listening to music; the study also revealed that there are students who use social media to find information for educational purposes.

Similar research was done by Al-Menayes, (2015) on university students. Grounded in the theory of Uses and Gratifications, the research set out user motivations with exploratory factor analysis. The analysis of the data revealed that their motivations for social media use are entertainment, information seeking, personal utility, and convenience.

The research done in Ethiopia by Mulisa et al. (2018) is not much different from the above-stated research. Data were collected from secondary school students through a self-reported questionnaire. The results showed that students are more likely to take advantage of social media for leisure and recreation. The research shows that the advantage of social networking is in last place and has been valued at a lower rate for its purpose in students' academic activities. These results may indicate that students are primarily using social media for recreational and relational purposes, but not for academic purposes. Research done by Khan, (2012) took one of its objectives to evaluate why most people use social media. The research found that most of the students use social media purely for entertainment, communication, and knowledge. Some students use social media for time-killing.

2.5 SPENDING TIME ON SOCIAL MEDIA BY STUDENTS

Research by Mulisa, et al. (2018) deducted that in a day students spend more time on the Internet, compared to their academic activities. They also noted that the time spent on Facebook alone appears to be just as long as what a student spends on academic activities.

Data was collected with questionnaires from students of Erican by adopting a descriptive research design. The data collected have been analyzed according to descriptive methods and regressions using SPSS 25. The Pearson correlation coefficients for four independent variable variables are correlated to the grade level of students, while two have no correlation coefficient at all. However, the regression analysis used four important variables, such as: how much time people spend on social media per day, friends' connection, nature of use, and health addiction, whereas Time duration and security privacy issues are insignificant Okyeadie Mensah and Nizam, (2016)

And also it relates this by involving time management in social media and academic performance. Therefore, the negative impact that a social media platform brings to its users may be readily exploited by students who don't manage their time. Finally, it finds that the length of time has little to no impact on students' academic achievement.

There is a different finding on the time management involvement of social media and academic performance relation. It is the exploration work by Khan et al., (2019) conveyed to research the

negative effect of social media on the academic performance of students with 4 parameters, which have a negative impact on student's performances. The mean time spent on social media, the causes of distraction, reduced contact with human beings, and a reduction in command over language were these four parameters. Of these four mentioned factors, the average duration of social media use in one day adversely affects students' performance as it significantly shortens learning time.

2.6 CONCEPTUAL FRAMEWORK USED BY SIMILAR STUDIES

According to Swaen and George (2022), A conceptual framework is a picture of the relationship we expect to be present between our variables or the characteristics or traits we want to study. We think about creating a conceptual framework before we start collecting data. This will make it easier to see the factors we'll track and how we anticipate they'll interact. A literature analysis of previous studies on our issue is the foundation for developing conceptual frameworks, which can be written or visually presented.

The following are conceptual frameworks used by related research to map variables and see their relationship.

- The study by Okyeadie Mensah, S., Nizam,(2016) investigated the social media impact on the academic performance of students in Malaysia. they use a conceptual framework that has dependent, and independent, and the relationship between the independent and dependent variables can be better understood by using mediating factors to link the two. Social media as an independent variable. Facebook, WhatsApp, Instagram, and Viber are social media that comes between independent and dependent variable. Time appropriateness, time duration, friend and people connection, nature of usage, health addiction and security or privacy problems are mediating variables. Facebook, WhatsApp, Instagram, and Viber impact the variables time appropriateness, time duration, friend and people connection, nature of usage, health addiction, and security or privacy problems which in turn these mediating variables that impact students' academic performance.

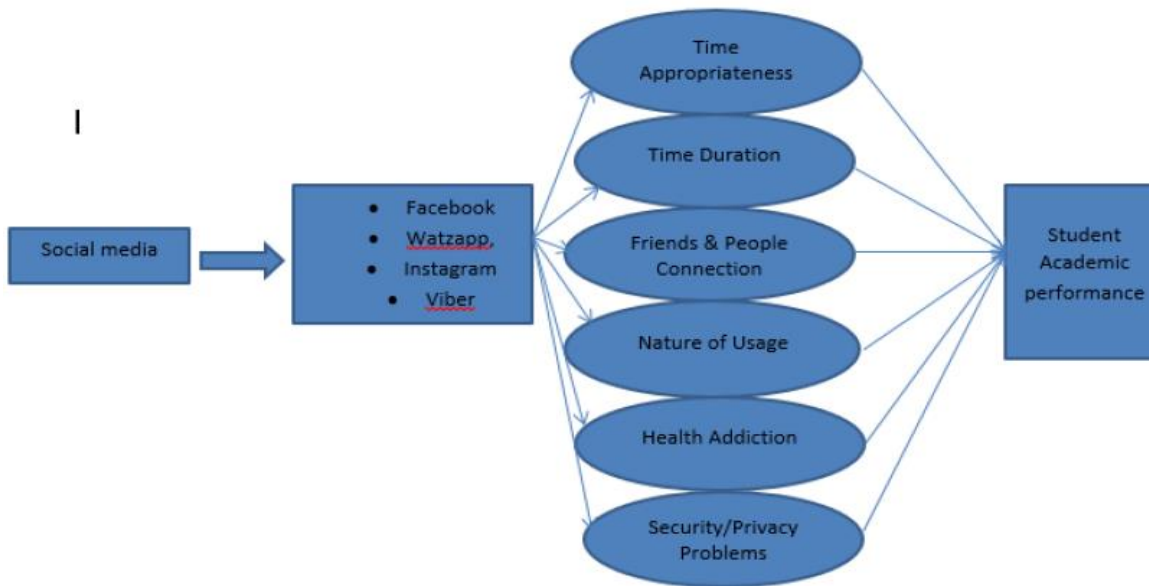


Figure 2. 1 Conceptual framework for the impact of social media on the academic performance of students in Malaysia (Okyeadie et al., 2016)

- The study by (Khan et al., 2019) to know social media's adverse impact on students' academic performance uses the conceptual framework that has Time waste, cause of distraction, reduction in real human contact, and reduced command over language as independent variable social media as a mediating variable. Negative academic performance as a dependent variable.

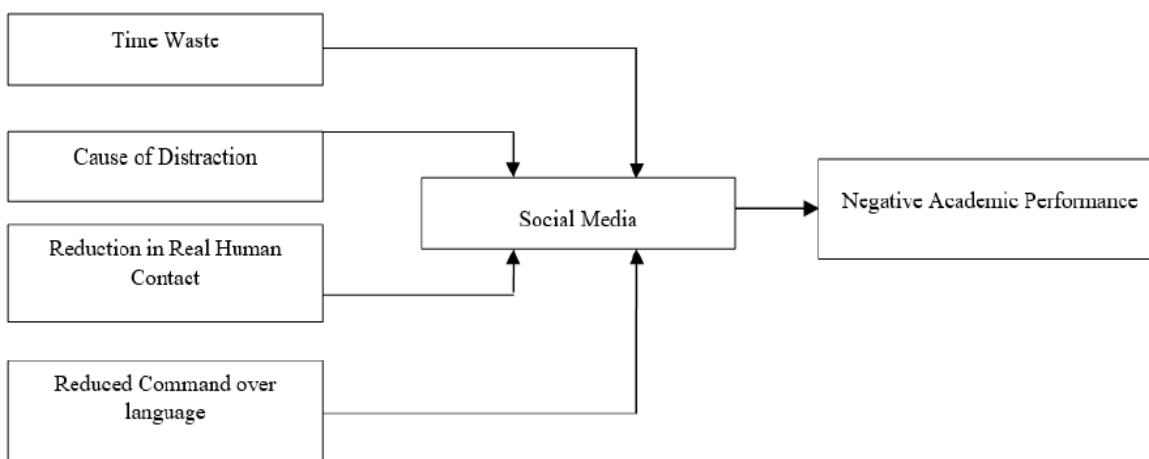


Figure 2. 2 Conceptual framework (Khan et al., 2019)

2.7 RELATED WORK

There are some studies in this field that have paid close attention to how social media affects students' academic performance. A study by Celestine, et al. (2018) concluded that the time spent on social media can negatively affect students' academic activities. The study was guided by the assessment of four research questions and three hypotheses. The descriptive survey design was used in the study. Students from Samuel Adegboyega University in Edo state in Nigeria made up the sample population. For data collection, a validated questionnaire with a reliability of 0.96 was utilized. The quantitative statistics that were used were frequency counts, percentages, and the mean. The hypothesis's significance was evaluated using inferential statistics. The estimation method was called Analysis of Variance (ANOVA), and the F-statistic was used to see if the hypotheses were statistically significant at 0.05. Additionally, it was discovered that the student's use of social media does not significantly affect how well the student does in class.

The impact of social media use on students' academic performance is the subject of one of Ethiopia's research papers Legesse, (2016). The study evaluates the significance of self-control and trust with a focus on gender differences. This is carried out at the College of Health and Medical Sciences of Haramaya University. Data were gathered from students using self-administered survey questionnaires from the faculties of medicine, public health, pharmacy, medical laboratory science, and medical science and technology, environmental health science and nutrition. There appears to be no association between social media use and academic performance. To examine the influence of social media on students' academic performance, Legesse, (2016), takes a student's average grade point total from the Registrar and identifies the impact that social media had on their academy. Using SPSS version 25.0 software, the collected data were analyzed and reported in frequency, percentage, or overall scores for a sample of statements. The researcher concluded that there is no significant relation between social media use and academic performance of students. This result is inversely related to a result of the research done in Ethiopia by Zewdu, et al., (2017) which reveals the use of social media affected the academic performance of female students negatively.

There is also research finding that has a similar result to Celestine, et al. (2018) which was done by Tamayo, (2014), Among the one hundred thirty-eight (138) respondents of Bachelor of Science in Information Technology Students of Centro Escolar University-Malolos, drawn using stratified random sampling, the use of social media affects Student's Academic Performance.

The study by Habes, et al. (2018) shows that the impact of social media on students' performances in class is significant. The study has found that many university students use social media more intensively due to Facebook's increased importance, which adversely affects their educational results and the researchers used a comparison and experiment approach in assessing its impact. Other research by Amin, et al. (2016) is based on random sampling. The target group was university education students in Okara, the Comsat Institute of Information Technology Sahiwal. For the collection of data, a questionnaire was applied as an instrument for statistical analysis. Descriptive statistics have been employed. The data were reliable to a value of 0.704, which is satisfactory. The results of this study indicate that students agree that their performance in school is greatly influenced by the use of these social media platforms. The researcher recommended in future work to add variables and increase the sample size to study the impact of social media on the academic performance of students.

Summary of Related Work

Table 2. 1 Related work

No	Name of the researcher	Problem	Approach	Key finding	Gap/future work
1	Tamayo (2014)	Investigated the connection between social media and the academic performance of Centro Escolar University Malolos students studying information technology for their bachelor's degree.	Descriptive research	Frequent users of social media are typically students with worse grades, whereas occasional users tend to focus on their academics and receive satisfactory grades.	Parents frequently assume using social media adversely impacts their kids' academic performance. On the other hand, social media makes their kids more observant, intelligent, and successful in school.
2	Legesse (2016)	Haramaya University case study on the effects of social media use on the academic achievement of students	Quantitative	The use of social networking sites and academic achievement have no discernible correlation.	Suggests surveying students about which device they use (i.e. smart phone, laptop....) to access social media services
3	Amin, Mansoor, Hussain, & Hashmat, (2016)	Studied the impact of social media on Student's Academic Performance	Descriptive	Social media affecting positively students' academic performance points.	Apart from the two main variables (academic performance and social media) discussed in the study, some other variables should be included.
4	Zewdu, Dadi, Taye & Gezu, (2017)	Investigate the impacts of social media on the Academic Achievement of Female Students at Jima University	Descriptive	In comparison to students who occasionally or infrequently used social media sites, students who frequently accessed social media sites for non-academic	The impact of social media on the academic performance of Ethiopian female students enrolled in higher education has not yet been studied.

				purposes had poorer grade point averages.	
4	Habes, Alghizzawi, Khalaf, Salloum, & Ghani (2018)	Investigate the relationship between social media and Academic Performance: Facebook Perspective	Comparative and experimental approach	Facebook use negatively affects their academic results	More fieldwork should be done on social media platforms, including looking at how people use them, how to invest in them, and how to use them to support education.
5	Melani & Andrew (2017)	Social Media and Academic Performance of Undergraduate Students	Descriptive	3rd year students in Eastern University, are addicted to social media.	Students, lecturers, and even general educational authorities have taken several dramatic measures as a result of social media's pervasive influence on students' brains and the world at large.
6	Celestine, & Nonyelum (2018)	Investigate the impact of social media on students' academic performance	Descriptive survey design	Significant relationship between time spent on social media sites and academic works.	Many students become dependent on social media because they use it so frequently to engage in various activities. There is growing concern regarding the possible consequences social media usage may have on students' academic performance as it becomes more popular.

2.8 RESEARCH GAP

In general, on the academic performance of students, not a lot research has been undertaken to examine the impact of social media (Zewdu, et al. (2017)). Social networking sites have grown increasingly popular among students as a result of technological advancements, and there is now a lot of interest in finding out how using social media sites affects academic performance among secondary school students. If we look at the research already done, most of the surveys are taken from universities. However, there is a record of the rapid growth of using habit of social media by teenagers (ages 13 up to 19).

It is important to study and determine the impact on student's learning outcomes of using social media. As Rithika., et al. (2013) write in their research when highly developed countries oppose the use of social media platforms and forbid their citizens, students, young people, and workers from using them, it is felt that further research is required to determine whether these websites negatively impact students. The researcher reviews the literature to explore the impact of social media on the academic performance of students. Most of the article's state that social networks take the full interest and attention of the students and divert them to non-academics consisting of useless time killing. Some also conclude that social media and performance in the academy have a positive correlation. This shows results varied from one study to another. Consequently, it is reasonable to find mechanisms to improve social media use and fill the gap in the literature in Ethiopia. Therefore, this research attempts to investigate the impact of social media on the academic performance of Ayertena secondary school students which is not addressed in earlier work.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter presents, research design, sampling technique, target population, sampling, data collection method, reliability, and validity, and finally ethical consideration.

3.1 RESEARCH DESIGN

A research design, often referred to as a research strategy, is an approach to answering a series of questions (McCombes,2019). The techniques and procedures used for collecting, analyzing, and interpreting the data. To put it more simply, the research design lays down how researchers are to address the main concern of the study.

3.1.1 RESEARCH APPROACH AND METHOD

Research approaches are techniques and plans used to conduct studies. They can be anything from general hypotheses to specific approaches to gathering, analyzing, and interpreting data. (Creswell, 2014).

To find out which type of research is best suited for the study or provides the most precise results, a researcher needs to have an understanding of different types of research. The three research approaches are: Quantitative, Qualitative, and Mixed. The design of research using quantitative perspectives is the first approach. To study, where statistical findings are tied to practical understandings, this strategy is working well. Formally and strictly, a quantitative approach entails collecting data in a quantitative form that can be subjected to rigorous quantitative analysis Kothari, (2004). Statistical software and other services are used to analyze them.

A qualitative approach seeks to investigate attitudes, behavior, and experience through methods such as interviews or focus groups Dawson, (2002). Through the lenses of beliefs, behaviors, and emotions, the significance of the human experience is investigated. Its focus is examining and revealing the social ideals underpinning human society. The third approach is the mixed approach to conducting research in which quantitative and qualitative research is collected, analyzed, and integrated into a single study or a longitudinal program of inquiry, Creswell, (2014). To express the impact of social media on the academic performance of secondary school students, the researcher adopted a quantitative research approach. The following are the reasons for choosing the quantitative research approach:

- The findings are supported by larger numbers of samples that are representative of the population
- The researcher uses a questionnaire to collect numerical data.
- The researcher aims to make predictions, investigate causal relationships, and test hypotheses.
- The researcher wants to get data that is precise and reliable.

3.1.2 RESEARCH AREA AND POPULATION

The study was conducted on students of Ayer Tena secondary school. It is a secondary school that has been established in 1981G.C. It has students from Addis Ababa and the Oromia region.

3.1.3 SAMPLE

When we're looking at a group of people, it's not always possible to gather data from everybody in the group. But take a sample instead.

We need to be very careful in choosing the sample that represents a group as a whole so that we can draw reliable conclusions from our results (McCombs,2019). There are two kinds of sample methods: probabilities and nonprobability samples. The probability sampling procedure involves random selection of the data, allowing us to make a strong statistical impression on the whole group. To allow easy collection of data, a nonprobability sample shall include random selection based on convenience or another criterion. The researcher has used a randomly selected sample to query respondents in this study. When a population from which a sample is to be chosen does not consist of a homogeneous group, stratified random sampling is used (Kothari, 2004). Since the respondents were from four groups (grade 9, grade 10, grade 11, and grade 12), this method was employed to select a representative sample from each group. The proportion to its size or enrollment was obtained with the help of stratified random sampling.

Sample size determination plays a significant role in research that uses primary data seeking responses from the use of questionnaires. The Taro Yamane method for sample size calculation was formulated by the statistician Tara Yamane in 1967 to determine the sample size of a given population. The mathematical illustration for the Taro Yamane method (Projectclue12, 2023):

$$n = N / (1 + N(e)^2) \dots \dots \dots (3.1)$$

Where **n** is the sample size, **N** is the population size, and **e** is the level of precision.

The researcher used Yamane’s simplified formula for proportions within a total population of 5060 students with a precision level of 0.05. Based on the formula applied the resulting sample size equals 371.

To select respondents, the investigator used simple random sampling to produce an equal probability for each student with segregated samples by dividing them into strata homogeneous groups. The researcher used the method for a proportionate allocation of samples between strata, in which they are allocated according to their size. Therefore, if n represents the entire sample size and P_i represents the percentage of the population that is included in stratum i , then n reflects the number of elements that were chosen from stratum i is $n \cdot p_i$ (Kothari, 2004). The size of stratum i is represented by S_i , while the population as a whole is represented by N , in the calculation of $P_i = S_i/N$. As a result, the table below presents a sample that was taken.

No	Representatives	Total	Sample	
1	9 th	Male	402	30
		Female	605	44
2	10 th	Male	411	30
		Female	722	53
3	11 th	Male	650	48
		Female	838	61
4	12 th	Male	576	42
		Female	856	63
Total		5060	371	

Table 3. 1 Representative sample

3.2 DATA COLLECTION TOOLS

A questionnaire is an instrument of sampling that consists of a set of questions designed for a target audience, sometimes it is necessary to research a specific topic to conclude. In the course of our research, we are sharing this set of questions with respondents. Questionnaires may have the purpose of gathering information, understanding views, and collecting data for research purposes within a given period. The Statistical Society of London invented it in 1838, the questionnaire is a good way of collecting data (Bhat, 2018).

The researcher gathered the required information by using the questionnaire and conducting it at the chosen school. The researcher has distributed the questionnaire. It is sensible to share this questionnaire with specific groups of people who can answer the questions more easily. The researcher focused groups are secondary school students and the questions were phrased to avoid

any ambiguities or misunderstandings. Since misread or misinterpreted questions reduce the quality of data collected for analysis.

The questions are closed-ended. Statistical and thorough analysis has been carried out on the data received. Participation in these questions is encouraged since they can be answered quickly and easily. To obtain the responses of the students and to retrieve them on the spot by researcher, a total of 371 copies of the questionnaire have been distributed.

3.3 DATA ANALYSIS TOOLS AND TECHNIQUES

The researcher used quantitative evaluation. With the use of the IBM SPSS version 25.0 software, the acquired data turned edited, coded, and categorized so one can improve outcomes using lowering mistakes and simplifying the statistics evaluation work with the aid of omitting hours of laborious facts management and presentation. Tables were used to deliver records due to the fact they are easy to summarize standards. In this look at facts evaluation and presentation have been done with the use of frequency and correlation evaluation. Correlation is used to check relationships among quantitative variables or express variables. In other words, it's a degree of how things are associated. The examination of ways variables correlated is known as correlation evaluation (Glen, 2023). Because of this, the researcher desires to measure how social media use is related to academic performance through the usage of correlation evaluation.

The study's hypotheses are based on literature reviews that look at how social media affects students' academic performance. Depending on whether a one-tailed or two-tailed test is desired, the null hypothesis (H_0) and alternative hypothesis (H_1) of the significance test for correlation can be stated in the following ways:(Kent State University Libraries, 2023)

Two-tailed significance test:

$H_0: \rho = 0$ ("the population correlation coefficient is 0; there is no association")

$H_1: \rho \neq 0$ ("the population correlation coefficient is not 0; a nonzero correlation could exist")

One-tailed significance test:

$H_0: \rho = 0$ ("the population correlation coefficient is 0; there is no association")

$H_1: \rho > 0$ ("the population correlation coefficient is greater than 0; a positive correlation could exist")

OR

$H1: \rho < 0$ ("the population correlation coefficient is less than 0; a negative correlation could exist") where ρ is the population correlation coefficient.

Correlation (Kent State University Libraries, 2023) can take on any value in the range [-1, 1]. The correlation coefficient's sign indicates the direction of the relationship, while the correlation coefficient's magnitude, how close it is to -1 or +1, indicates the strength of the relationship. -1: perfectly negative linear relationship

- 0: no relationship
- +1: perfectly positive linear relationship

The strength can be assessed by these general guidelines: (Kent State University Libraries, 2023)

- $.1 < |r| < .3$... small / weak correlation
- $.3 < |r| < .5$... medium / moderate correlation
- $.5 < |r|$ large / strong correlation

3.4 DESIGN AND DEVELOPMENT OF THE FRAMEWORK

The framework is constructed on the findings of the study, literature, and acceptable use policy. The developed framework shows each component that helps to develop improved social media use for improved academic performance. Using social media for Knowledge sharing, acquiring, and reducing the average time spent on social media for entertainment are the main components discussed in detail in Chapter Four. The developed framework is for Ayertena Secondary School but can be used for other secondary schools. it's the completeness, clarity, suitability, understandability, correctness, and applicability of this framework are demonstrated to the school director and ICT teachers. These students participated in the questionnaire and ICT infrastructure manager. This study used expert validation via expert interviews and evaluation surveys to evaluate the proposed framework.

3.5 VALIDITY AND RELIABILITY

Validity and reliability are standards used to assess excellent research. They show how effectively a method, strategy, or examination measures something. Validity is concerned with a measure's precision, whereas reliability is concerned with a measure's consistency (Middleton, 2019).

The questionnaire was piloted on the pattern of meant respondents for smooth knowledge and ambiguity test. After taking their comments and making corrections, the progressed questionnaire turned into a dispensed form. The researcher used Cronbach's alpha from the SPSS version 25.0

tool as a measure of the internal consistency or reliability of the dependent variable. The generated (.752) and (.808) Cronbach's alpha coefficient for the variable of average time spent on social media and factors social media use questionnaire respectively indicating the reliability of the questionnaire.

Table 3. 2 Reliability Statistics of Time spends on social media and its impact on Students' Academic Performance

Cronbach's Alpha	N of Items
.752	3

Table 3. 3 Reliability Statistics of Use of social media by secondary school students for learning and teaching

Cronbach's Alpha	N of Items
.808	5

3.6 ETHICAL CONCERNS

In ensuring compliance with the moral issues, and to ensure the participation by using all Ayertena secondary school students concerned in the studies examination, ethical issues such as ensuring that the names and information of the respondents were not disclosed; the respondents were additionally assured of confidentiality and anonymity.

3.7 CONCEPTUAL FRAMEWORK

Frameworks need to be built to fill research gaps. These indicators make it easier to define goals, priorities, and interconnections among the variables. For the specific identification of process specificity, it is particularly useful to use research frameworks. A conceptual framework, since it is an overlooked methodological approach, should be considered before the start of any research in science, finance, history, psychology, and so on. A conceptual framework is a means of combining the ideas, convictions, beliefs, and concepts underlying research visually, graphically, or narratively. The conceptual framework you have established links the dependent and independent variables, factors, and other ideologies that influence the design of your research. Two key variables must be identified in testing the relationship between cause and effect: independent variable and dependent variable (voxc0, 2021).

- Independent Variable: A variable expected that would have an impact on the dependent variable.

- **Dependent Variable:** The variables under test and being measured, which are considered to be 'depending' on the value of the independent variable.

This research work was carried out to identify the impact of social media on the academic performance of secondary school students. For this, two parameters are considered for analyzing the impact of social media on the academic performance of students. These two parameters are factors of social media usage and average time spent on social media for entertainment. Inside the parameter factors of social media use, there are four variables which are knowledge, communication, entertainment, and pastime. These parameters are independent variables that are not influenced by any other variables in the study.

Factors of social media use: -is about why students use social media or for what purpose they engage on social media. There are different factors of social media usage motivation in different studies. Generally based on the literature review entertainment, communication, knowledge, and pastime are taken.

Knowledge: - This applies to the facts or ideas derived from research, investigation, observation, and experience. Not only for communication but also for education, social media has become an important tool. Social media is generally used by students to disseminate and obtain immediate information on their problems, review them, or solve them. It's a social networking platform where users can share information and establish credibility in their selected field or area of expertise. In an online community, they can also learn knowledge and perspectives from other users (Kajal, 2023). It is taken as one of the reasons students use social media. In this study using social media for knowledge means students use social media for academic activities like working on their homework and assignments or grasping general knowledge.

Communication: - Communication is one of the factors to be used in social media. It's about giving or exchanging information by talking, writing, and using a different medium. Social media are a form of communication that is based on the Internet. Users can engage in conversation and exchange information through the use of platforms like Twitter. Students are also exchanging information on social media with their friends and peers. This parameter is taken as an independent variable for the research to see if the use of social media by students for communication affects their academic performance.

Entertainment: -people are using social media for having fun. It is becoming a big entertainment industry. So, it is one of the leading factors for using social media. According to different research, students are using social media more for entertainment. The researcher takes this as an independent variable to see its impact on academic performance.

Pastime: - an activity that someone does regularly to pass the time rather than work. Some others use this social media for pastime without needing any valuable purpose. The researcher also takes this parameter as an independent variable if using social media as a pastime by Ayertena secondary school students has an impact on their academic performance.

Average time spent in a day for entertainment on social media: - Time spent on social media is one of the big issues raised in all sectors. Time spent on social media use by employee is a headache for companies because they are not completing their work in time or other falling issues. This result is also seen in studies done on targeting students. So, the researcher takes this variable as an independent variable to see if the average time Ayertena secondary school students spend in a day on social media for entertainment has an impact on their academic performance.

Academic performance: -This research is initiated to fill the gap of information in Ethiopia on whether or not students' social media use impacts on students' academic performance. so academic performance is the dependent variable to be seen if it is affected or not. In schools' students' academic performance is measured using average grade points so in this research academic performance is measured using average grade points.

Generally, the variables for the study were Knowledge, communication, Entertainment, pastime, and Average time spent in a day on social media for entertainment. These parameters are independent variables that are not influenced by any other variables in the study. knowledge, communication, entertainment, and pastime are parameters from factors of using social media or for what purpose they use social media. The average time Ayertena secondary school students spend in a day on social media for entertainment is the other independent variable. Academic performance is the dependent variable which changes as a result of the independent variables. It represents the students' academic achievement through their Excellent academic performance points (90-100), Very Good (80-89), Good (60-79), Satisfactory (50-59), and Poor (<50).

The researcher demonstrates this using basic design elements of boxes and arrows, where each variable appears in a box, and each arrow should start from the independent variable (the cause) and point to the dependent variable (the effect) to indicate a causal relationship. The dotted box

used to show the knowledge, communication, entertainment, and pastime are factors of social media use that are separated from the average time spent in a day on social media for entertainment.

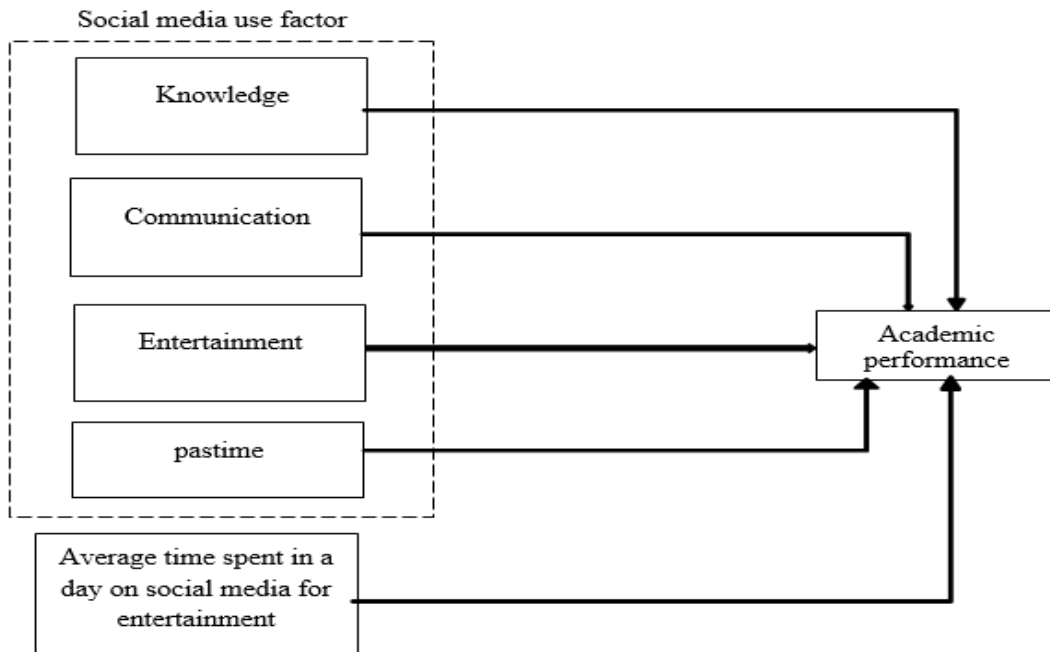


Figure 3.1 (adapted from Khan et al., 2019) proposed a conceptual framework

The following hypotheses are formulated for the research

- Relationship between using social media for Knowledge and the academic performance of secondary school students.

H0 There is no relationship between using social media for Knowledge and the academic performance of secondary school students.

H1 There is a relationship between using social media for Knowledge and the academic performance of secondary school students.

- Relationship between using social media for Communication and the academic performance of secondary school students.

H0 There is no relationship between using social media for Communication and the academic performance of secondary school students.

H1 There is a relationship between using social media for Communication and the academic performance of secondary school students.

- Relationship between using social media for Entertainment and the academic performance of secondary school students.

H0 There is no relationship between using social media for Entertainment and the academic performance of secondary school students.

H1 There is a relationship between using social media for Entertainment and the academic performance of secondary school students.

- Relationship between using social media for pastime and the academic performance of secondary school students.

H0 There is no relationship between using social media for pastime and the academic performance of secondary school students.

H1 There is a relationship between using social media for pastime and the academic performance of secondary school students.

- Relationship between the Average time spent in a day on social media and academic performance.

H0 There is no relationship between the Average time spent in a day on social media for entertainment and academic performance of secondary school students.

H1 There is a relationship between Average time spent in a day on social media for entertainment and academic performance of secondary school students.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

The results are described and discussed in this chapter. The section presents questionnaires from the General and Technical categories, which are performed with a frequency analysis test in the SPSS version 25.0 tool. A total of 371 questionnaires were sent out in person. 351 collected with a return rate of 95%. Three sections of the questionnaire are defined. Demographic factors, analyses of research questions, and the test for hypotheses are included. The data have been analyzed using frequency analyses and a correlation analysis has been used to test the hypothesis. The following are presented as the findings.

4.1 DEMOGRAPHIC DATA OF RESPONDENTS

4.1.1 GENDER DISTRIBUTION OF RESPONDENTS

The sample consisted of 52.1% female and 47.9 % male students from a total of 351 respondents. All the respondents are social media users. The statistics show that most of the respondents are female students.

Gender	Frequency	Percent
Male	168	47.9%
Female	183	52.1%
Total	351	100.0%

Table 4. 1 Frequency analysis of gender Distribution of respondents

4.1.2 GRADE DISTRIBUTION OF RESPONDENTS

Table 4.2 shows that 29.6% of the respondents were from grade 11, 29.3% of the respondents were from grade 12, 21.9% of the respondents were from grade 10, and 19.1% of the respondents were from grade 9. This shows that most of the respondents are from grade 11 and grade 12.

Table 4. 2 Frequency analysis of grade distribution of respondents

Grade	Frequency	Percent
9 th	67	19.1%
10 th	77	21.9%
11 th	104	29.6%
12 th	103	29.3%
Total	351	100.0%

4.1.3 DISTRIBUTION OF RESPONDENTS BY SOCIAL MEDIA ACCOUNT

The table 4.3 shows the different social media accounts used by students. Most of the respondents accounting for 37.89% have an account on Instagram, TikTok, and Telegram together. This was followed by Telegram with 16.19%, Instagram with 14.2%, and TikTok with 11.4%. The least number of respondents accounting for 2.56% has a Facebook account. The result shows that most of the respondents have accounts on Instagram, TikTok, and Telegram together. But those who only have an account on Facebook are small in number. This shows that students prefer Instagram, TikTok, and Telegram.

Table 4. 3 Respondent's owned social media account frequency

Social media Account	Frequency	Percent
Facebook	9	2.56%
Instagram	50	14.2%
TikTok	40	11.4%
Telegram	57	16.19%
Instagram, TikTok and Telegram	133	37.89%
Facebook, YouTube, and Telegram	30	8.55%
Facebook, Telegram and TikTok	32	9.12%
Total	351	100%

4.1.4 DISTRIBUTION OF RESPONDENTS BY SOCIAL MEDIA USE FREQUENCY

Table 4.4 shows the most used social media by secondary school students. As shown, most of the respondents accounting for 32.2% frequently used TikTok. This was followed by Telegram with 30%, Instagram, TikTok, and Telegram with 17.9%, least use the least social media are Facebook and YouTube with 5.4% and 3.7% respondents. The result shows that TikTok and Telegram are the most used social media by the respondents.

Table 4. 4 Frequently used social media by secondary school students

Social media Account	Frequency	Percent
Facebook	19	5.4%
Instagram	38	10.8%
TikTok	113	32.2%
Telegram	105	30%
You tube	13	3.7%
Instagram, TikTok and Telegram	63	17.9%
Total	351	100%

4.1.5 DISTRIBUTION OF RESPONDENTS BY WHERE AND WHEN ACCESS SOCIAL MEDIA

Table 4.5 shows the most used time and place to access social media by the students. As shown, the majority 72.9% of the respondents preferred accessing social media at all times. This is followed by accessing social media in their free time with 14%, and at school with 6.3%. A small number of respondents accounts for 1.7% accessing social media at mealtime.

Table 4. 5 Where and when they access social media

Where they access social media	Frequency	Percent
Free time	49	14.0%
At school	22	6.3%
On social occasion	18	5.1%
Meal time	6	1.7%
All time	256	72.9%
Total	351	100.0%

4.1.6 DISTRIBUTION OF RESPONDENTS HAVING SMARTPHONE

As presented in Table 4.6, from 351 respondents the analysis data shows that the majority 94.9 % of respondents owned a smartphone. 5.1 students are not users of smartphones. This shows that 5.1 % of respondents use another device to access social media.

Table 4. 6 Distribution of respondents having a smartphone

Have Smartphone	Frequency	Percent
Yes	333	94.9%
No	18	5.1%
Total	351	100.0%

4.1.7 DISTRIBUTION OF RESPONDENTS BY DEVICE THEY USE FOR SOCIAL MEDIA FEED

The table shows the go-to devices students use to access social media. As shown in Table 9 the majority of respondents 94.9% use mobile, 2.6% of respondents use a tablet, and 2.3% of respondents use a laptop. The lowest number of respondents 0.3% use desktops.

Table 4. 7 Frequency analysis of go-to device respondents use for social media feed

Go to device	Frequency	Percent
Mobile	333	94.9%
Tablet	9	2.6%
Laptop	8	2.3%
Desktop	1	0.3%
Total	351	100.0%

4.1.8 DISTRIBUTION OF RESPONDENTS BY ACCESS AND ENGAGING TO SOCIAL MEDIA BY DEVICE TYPE

Table 4.8 shows that 50.7% and 35% of the respondents' responses agree and strongly agree that access and engagement to social media depend on the device type they have. The remaining 9.7% and 4.6% are either neutral or disagree with the above issue. This result shows the majority of respondents agree that accessing and engaging with social media depends on the device type.

Table 4. 8 Access and engaging to social media by device type

Access and engaging to social media are dependent on the devise type	Frequency	Percent
Strongly disagree	3	0.9%
Disagree	13	3.7%
Neither agree nor disagree	34	9.7%
Agree	178	50.7%
Strongly agree	123	35.0%
Total	351	100.0%

4.1.9 DISTRIBUTION OF RESPONDENTS BY ACADEMIC PERFORMANCE

Figure 4.1 shows most of the respondents' (29.1%) current academic performance is satisfactory. Next to that, 24.5% of current academic performance are less than 50. Those who have Excellent academic performance are small in number with 9.7%. The result shows that the majority of respondent current academic performance is either satisfactory or fail.

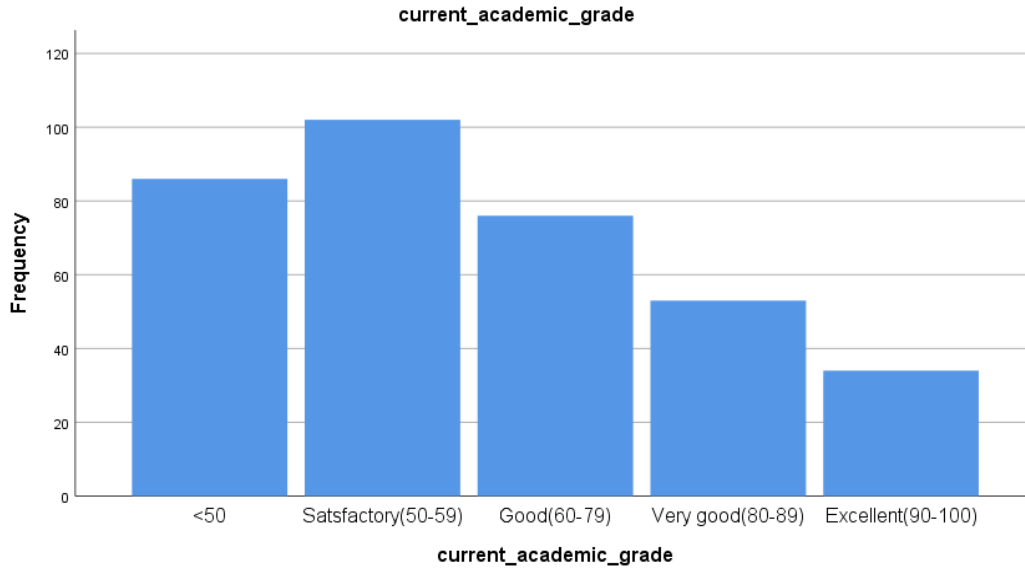


Figure 4. 1 Distribution of respondents by academic performance

4.1.10 DISTRIBUTION OF RESPONDENTS BY AVERAGE TIME IN A DAY SPENT ON SOCIAL MEDIA FOR ENTERTAINMENT

In the figure 4.2 most of the respondent's average time spent in a day on social media for entertainment is 1 up to 2 hours, followed by 3 up to 4 hours and greater than 4 hours. A small number of respondents spent an average time of less than 30 minutes a day on social media for entertainment. This shows that the majority of respondents' average time spent on social media for entertainment is one to two hours a day.

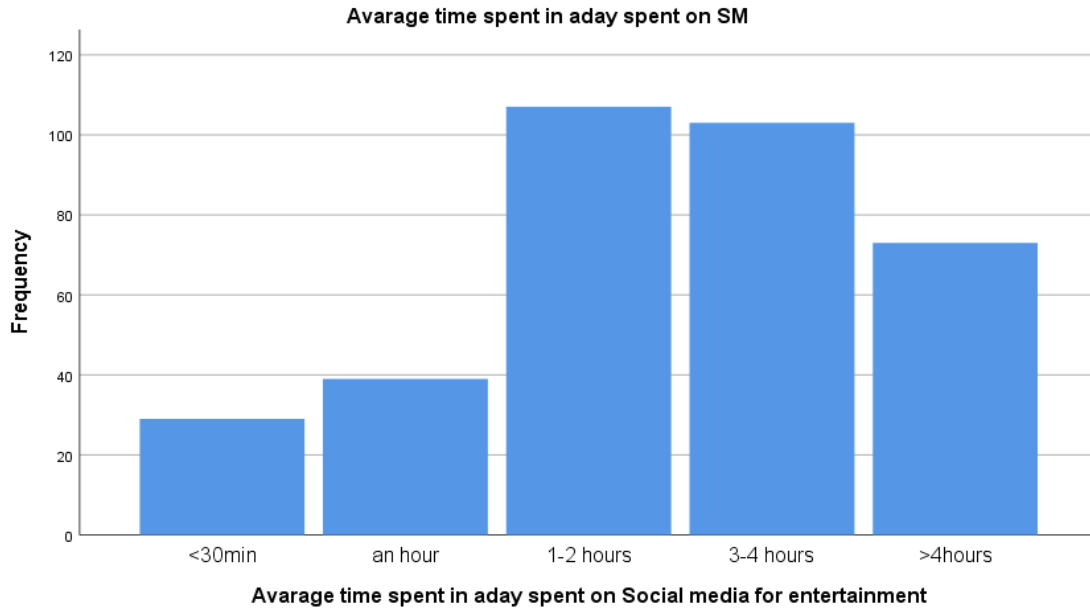


Figure 4. 2 Distribution of respondents by average time in a day spent on social media

4.2 SOCIAL MEDIA USE

The objective of analyzing questions asked based on social media use is to see if time spent on social media has an impact on students' academic performance and if social media is used for knowledge-acquiring and sharing purposes by secondary school students. The result is shown below in Tables 4.9 and 4.10.

Table 4.9 shows time spent on social media and its impact on students' academic Performance.

- The statement “after they take time in social media use there is a drop in their academic performance point” has a mean value of 3.3, which means that most respondents are neutral or agree with it. These suggest that being engaged and spending more time on these social media has an impact on student's academic performance, and also some students have no strong feelings or opinions either way.
- The issue that online social media distracts students from studies has a mean value of 3.6, which means that most respondents are neutral or agree with it. This implies that students are distracted by online social media from studies.
- The statement “students spent online is much more than the number of hours spent reading” has a mean value of 3.4, which means that most respondents are neutral or agree with it.

This indicates students spend more time on social media use than studying and also have mixed feelings on this issue.

Table 4. 9 Time spends on social media and its impact on Students’ Academic Performance

No	Issues	Strongly Agree		Agree		Neither Agree nor Disagree		Disagree		Strongly Disagree		Average
		Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	
1	After students became take time in social media use there is a drop in their academic performance point	68	19.4	77	21.9	125	35.6	61	17.4	20	5.7	3.3
2	Online social media distracts students from their studies.	74	21.1	126	35.9	93	26.5	47	13.4	11	3.1	3.6
3	The hours students spend online are much more than the number of hours spent studying.	90	25.6	91	25.9	65	18.5	74	21.2	31	8.8	3.4

- The statement “Students believe that social media can help in learning and teaching if they can discuss assignments with friends (through knowledge sharing and group discussion)” in Table 4.10 has a mean value of 3.5, which means most respondents are neutral or agree with it. This suggests that most students believe that social media can help in learning and teaching, because they can discuss assignments with friends (through knowledge sharing and group discussion), but some students have mixed feelings about social media help in learning and teaching.

- The statement “students make use of social media more to communicate than knowledge sharing with their classmates and peers” in Table 4.10 has a mean value of 4.0, which means most respondents agree or strongly agree with it. This indicates most of the respondents use social media more to communicate than knowledge share with their classmates and peers.
- The statement “most of the time students use social media to complement and support what has been taught in class” Table 4.10 has a mean value of 2.6, which means most respondents are neutral or disagree with it. This indicates that most students use social media for other purpose than acquiring knowledge.
- The statement “social media is helpful in students’ studies to receive lecture notes from teachers” has a mean value of 3.6, which means the respondents are neutral or agree with it. This shows most of the respondents agree that social media is helpful for students’ studies to receive lecture notes from teachers but some students have mixed feelings about it.
- The statement “social media is helpful if included for education purposes” has a mean value of 4.0, which means most respondents agree or strongly agree with it. This implies that most students believe social media is helpful if included for educational purposes.

Generally, from the statements agree disagree and nether nor agree responses of Table 4.10, it is indicated that

- ✓ large number of respondents make use of social media to communicate with their classmates and peers rather than using it for knowledge.
- ✓ social media is helpful in students’ studies to receive lecture notes from teachers this shows social media can be applied to education in secondary schools.
- ✓ The result shows social media use to complement what has been taught in class or social media for problem-solving is not applicable by students. here we can observe that the respondents use social media more for receiving lecture notes than discussion and knowledge sharing.

Table 4. 10 Use of social media by secondary school students for learning and teaching

No	Statement	Strongly Agree		Agree		Neither Agree nor Disagree		Disagree		Strongly Disagree		Average
		Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	
1.	Students believe that social media can help in learning and teaching if they can discuss assignments with friends (through knowledge sharing and group discussion).	81	23.1	74	21.1	123	35	70	19.9	3	0.9	3.5
2.	Students make use of social media more for communication than knowledge sharing with their classmates and peers.	107	30.5	169	48.1	30	8.5	43	12.3	2	0.6	4.0
3.	Most of the time students use social media to complement and support what has been taught in class	53	15.1	14	4	85	24.2	149	42.5	50	14.2	2.6
4.	Social media is helpful in students' studies to receive lecture notes from teachers.	79	22.5	141	40.2	67	19.1	53	15.1	11	3.1	3.6
5.	Social media is helpful if included for educational purposes.	89	25.4	183	52.1	60	17.1	15	4.3	4	1.13	4.0

On the other hand, students are asked the question” Do you consider your academic performance is affected by social media?”, to have their view on the relation of social media with their academic performance. Most of the respondents 57.8% answered “yes”, 24.8% of respondents answered “no” and 17.4% answered “not sure. This means more than half of respondents consider their academic performances affected by social media.

Table 4. 11 Your academic performance is affected by social media

Academic performance is affected by social media	Frequency	Percent
Yes	203	57.80%
No	87	24.80%
not sure	61	17.40%
Total	351	100.00%

4.2 FACTORS OF USING SOCIAL MEDIA WITH CURRENT ACADEMIC PERFORMANCE

Based on the results gathered from 351 respondents shown in table below the use of social media is influenced by the factors such as knowledge, communication, entertainment, and pastime. The analysis of 351 respondents reveals that 20.6% of them used social media for knowledge, 30.0% of respondents used social media for communication, 26.0% of respondents used social media for entertainment and 23.4% of the remaining respondents used social media for pastimes. This result shows most of the respondents used social media for communication.

Table 4. 12 Factors of social media

Factors of social media use	Frequency	Percent
Knowledge	72	20.6
Communication	105	30.0
Entertainment	91	26.0
Pastime	82	23.4
Total	351	100.0

Table 4.12 shows the factors of using social media with their current academic performance. The majority of respondents with poor (<50) academic performances fall under the category of entertainment and pastime factors of using social media with response rates of 47.67% and 43.68% respectively.

Of 351 respondents, 102 of them have Satisfactory (50-59) academic performances. Out of those respondents under the category of satisfactory 29.4% used social media for the communication factor, 32.35% for the entertainment factor, 28.43% for the pastime factor, and 9.8% for the knowledge factor. This result shows the respondents with satisfactory academic performances used social media more for communication and entertainment factor. Respondents that account for 76 from the total of 351 are in good (60-79) academic performances. Out of students in that category, 71.05% use social media for communication factor, 10.52% for entertainment factor, 10.52% for pastime, and 9.21% for knowledge factor. This result shows the respondents with good academic performances use social media for communication and pastime factors.

Of 351 respondents, 53 of them have a very good (80-89) academic performance. Out of students in this group, 20.75% use social media for communication factor, 11.3% for pastime factor, 9.43% for entertainment factor, and 58.4% for knowledge factor. This result shows the respondents with very good academic performances use social media more for knowledge. Finally, some students account for 34 with excellent (90-100) academic performances out of which 14.7% use social media for communication, 11.76% for the entertainment factor, 5.88% for the pastime factor, and 64.7% for the knowledge factor. This result shows the respondents with excellent academic performances use social media more for acquiring knowledge.

Table 4. 13 Frequency analysis of factors of using social media with respondents' current academic performance

Current academic performance	For knowledge	For communication	For entertainment	For pastime
Poor (<59)	2 2.29%	5 5.74%	42 48.28%	38 43.68%
Satisfactory (50-59)	10 9.8%	30 29.4%	33 32.35%	29 28.43%
Good (60-79)	7 9.21%	54 71.08%	8 10.52%	7 9.21%
Very good (80-89)	31 58.4%	11 20.75%	5 9.43%	6 11.3%
Excellent (90-100)	22 64.7%	5 14.7%	4 11.76%	2 5.88%
Total	72	105	92	82

4.4 AVERAGE TIME SPENT IN A DAY ON SOCIAL MEDIA FOR ENTERTAINMENT WITH CURRENT ACADEMIC PERFORMANCE

The average time of 1-2 hours comprised the largest percentage of 30.5%. Additionally, there was an approximately equal percentage of respondents between those who spent an average time of 1-2 hours (30.5%) and 3-4 hours (29.3%) on social media for entertainment. An average of less than 30 minutes spent on social media for entertainment has the smallest percentage which is 8.3%. 20.8% of respondents spent an average of (> 4 hours) and 11.1% of respondents spent an average of (an hour) on social media for entertainment.

Table 4. 14 Average time spent on Social Media for entertainment

Average time spent on social media for entertainment	Frequency	Percent
<30min	29	8.3
an hour	39	11.1
1-2 hours	107	30.5
3-4 hours	103	29.3
>4hours	73	20.8
Total	351	100.0

As shown in Table 4.15 16.27% of those who have academic performances of less than 50 spent 1 up to 2 hours a day on social media for entertainment, following 33.7% and 50% of respondents spent an average time of 3-4 hours and greater than 4 hours in a day on social media for entertainment respectively. No respondents had less than 30 minutes and an hour of average time spent in a day on social media for entertainment. This result shows most of the respondents with poor (<50) academic performances spent an average time of 3-4 hours and greater than 4 hours in a day on social media for entertainment.

Of the respondents with a satisfactory (50-59) academic performance, the Majority, or 44.4% spent an average time of 3 up to 4 hours, and 38.25% spent an average time of 1 up to 2 hours in a day on social media for entertainment. This was followed by 12.74% of respondents spending an average time of greater than 4 hours a day on social media for entertainment. Others or 3.48% spent an average time of an hour on social media in a day for entertainment. An average time of less than 30 minutes takes the least or 1.9%.

From Table 4.15 below 1.32% of those who have good (60-79) academic performances spent an average time of fewer than 30 minutes a day on social media for entertainment, 7.89% of them spent an average time of an hour a day on social media, 38.15 % spent average time of 1 up to 2 hours in a day on social media for entertainment, 35.5% spent average time of 3 up to 4 hours in a day on social media and 17.1% spent average time of greater than 4 hours in a day on social media for entertainment. This result shows that most respondents with good academic performances spent 1 up to 2 hours a day on social media for entertainment.

Of the respondents who have a very good (80-89) academic performance 24.5% of them spent an average time of fewer than 30 minutes a day on social media for entertainment, 33.9% spent an average time of an hour a day on social media for entertainment, 35.8% spent average time of 1 up to 2 hours in a day on social media, 3.77% spent an average time of 3 up to 4 hours in a day on social media and 1.88% spent average time of greater than 4 hours in a day on social media for entertainment. This result shows the majority of respondents with very good academic performances spent an average time of either 1 up to 2 hours or an hour a day on social media for entertainment.

From respondents who have excellent (90-100) academic performances 38.2% of respondents spent an average time of less than 30 minutes and 35.29% of respondents spent an average time of an hour a day on social media for entertainment. There are no respondents with excellent academic performances who spent an average time of 3 up to 4 hours a day on social media for entertainment and the rest 8.82% spent an average time of greater than 4 hours a day on social media for entertainment. This result shows the majority of respondents with excellent academic performances spent an average time of less than 30 minutes a day on social media.

Table 4. 15 Frequency analysis of average time spent on social media for entertainment with current academic performance

Average time spent in a day on social media for entertainment					
Current academic Performance	<30min	an hour	1-2 hours	3-4 hours	>4hours
Poor (<50)	0 0.0%	0 0.0%	14 16.27%	29 33.7%	43 50%
Satisfactory (50-59)	2 1.9%	3 3.48%	39 38.23%	45 44.11%	13 12.74%
Good (60-79)	1 1.32%	6 7.89%	29 38.15%	27 35.5%	13 17.1%
Very good (80-89)	13 24.5%	18 33.96%	19 35.8%	2 3.77%	1 1.88%
Excellent (90-100)	13 38.2%	12 35.29%	6 17.6%	0 0.0%	3 8.82%
Total	29	39	107	103	73

4.5 ANALYSIS AND TESTING OF HYPOTHESES

- Relationship between using social media for Knowledge and the academic performance of secondary school students.
- Relationship between using social media for Communication and the academic performance of secondary school students.
- Relationship between using social media for Entertainment and the academic performance of secondary school students.
- Relationship between using social media for pastime and the academic performance of secondary school students.

Table 4.16 shows the correlation of the four divided factors of using social media with academic performances. There is a positive relationship between using social media for knowledge and the academic performance of secondary school students. According to Kent State University Libraries, (2023), the relationship between the two variables is a strong correlation because the result is 0.512.

The other two factors of using social media (such as entertainment and pastime) and the academic performance of secondary school students' correlation results are negative, which means there is an inverse relationship. The use of social media for entertainment has a negative (-.314) moderate

relationship with the academic performance of secondary school students This shows us that as they use social media for entertainment there is a decrease in their academic performance.

-.314 correlation value also indicates that moderate correlation between using social media as a pastime and academic performance in secondary school. This might show us that as they use social media for pastime there is a decrease in their academic performances. The correlation between the use of social media for communication and academic performance results is .131 which is a weak positive correlation.

Table 4. 16 Correlation of the four divided factors of using social media with academic performance

		Current academic performance	for knowledge	for communication	for entertainment	For pastime
Current academic performance	Pearson Correlation	1	.512**	.131*	-.318**	-.314**
	Sig. (2-tailed)		.000	.014	.000	.000
	N	351	351	351	351	351

- The relationship between Average time spent in a day on social media for entertainment and academic performance

Table 4. 17 Correlation of Average time spent in a day on social media for entertainment and students' academic performance

		Correlations	
		Current academic performance	Average time spent in a day on social media for entertainment
Current academic performance	Pearson Correlation	1	-.632**
	Sig. (2-tailed)		.000
	N	351	351
Avg time spent in a day on social media for entertainment	Pearson Correlation	-.632**	1
	Sig. (2-tailed)	.000	
	N	351	351

** . Correlation is significant at the 0.01 level (2-tailed).

The results in Table 4.17 indicated that there is a negative correlation between Average time spent in a day on social media and students' academic performances. The correlation result between the two variables is -0.632. which is a strong correlation, the null hypothesis was rejected and a conclusion was made that the average time spent in a day on social media for entertainment and students' academic performances correlated.

4.6 SUMMARY

The research was done on 351 social media users of secondary school students. When we see their current average academic performance, most of the respondents' academic performances fall under satisfactory (50-59) and poor (<50) or insignificant academic performance.

The majority or 57.8% of students consider that their academic performance is affected by social media. 72.9% of the respondents accessed social media at all times which is at school, mealtime, free time, and on occasion. In Table 4.9 the respondents consider that they are distracted by online social media from studies and the hours they spend online are much more than the number of hours they spend studying.

Table 4.10 indicates that most of the respondents make use of social media to communicate rather than for knowledge sharing and acquiring. More than half of the respondents agreed that social media is helpful if included for education, knowledge sharing, and acquiring purposes.

In the frequency analysis of factors of using social media with respondents' current academic performances, those respondents who have excellent and very good academic performance use social media for knowledge.

The result in Table 4.13 shows for those with poor (<50) academic performance entertainment and pastime are social media use factors. For those who have satisfactory academic performances entertainment and communication are social media use factors. Similarly, for those with good academic performance communication and entertainment are social media use factors. However, those with excellent and very good academic performance use social media for knowledge.

The hypothesis that states the relationship between the factors of using social media and the academic performance of secondary school students was tested using Table 4.16. Factors are divided into four (knowledge, communication, entertainment, and pastime). The finding of this study shows that factors of using social media influence academic performance.

Table 4.15 Frequency analysis of average time spent on social media for entertainment in a day with current academic performance. Results show us the majority of respondents with excellent

academic performance spent an average time of less than 30 minutes a day on social media for entertainment. additionally, there were no respondents with excellent academic performance who spent an average time of 3 up to 4 hours a day on social media for entertainment. Respondents with very good academic performance spent an average time of 1-2 hours a day on social media for entertainment. Those with good academic performance spent an average time 1 up to 2 hours a day on social media for entertainment. For the Satisfactory (50-59) academic performance, the majority spent an average time of 3 up to 4 hours a day on social media for entertainment. The remaining with poor academic performance spent an average time of greater than 4 hours a day on social media for entertainment. This indicates that the Average time spent in a day on social media for entertainment has an impact on students' academic performance.

4.7 DESIGN REQUIREMENTS

The researcher is assisted in the generalization of the findings and drawing up a framework based on an analysis and discussion of statistical data and literature. Design and development of a framework is based on the requirements provided below in the table.

Table 4. 18 Design Requirements

Category	Requirement
Use social media for Knowledge	<ul style="list-style-type: none"> ✓ Include social media platforms for the learning and teaching process. ✓ Create assignment and discussion ideas on social media. ✓ Make social media knowledge acquiring and sharing area. ✓ restrict the use of electronic technologies in school: - <ul style="list-style-type: none"> • Close supervision by a teacher • Rules and regulation support. • Apply a filtering mechanism for information and file share that is not related to education. • Use the school internet and social media accounts only for academic-related activity. ✓ Give awareness to the use of social media for the academy. ✓ Appreciate, acknowledge, and reward those who use social media more for academic activity and knowledge. ✓ Students should be mindful of for what purpose they use social media ✓ Students should avoid online social media during studying ✓ Students should avoid social media use in school ✓ Students should use social media for academic activity

Reduce average time spent on social media for entertainment	<ul style="list-style-type: none"> ✓ Students should control their screen time. ✓ Students should not spend more than an hour on social media in a day ✓ Schools should give awareness to students to control the time they spend on social media
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4.8 PROPOSED FRAMEWORK

This growing social media is playing its role in the academics of secondary school. It's affecting their academy depending on for what purpose they use it and how much time they spend on it. The Ethiopian education and training policy in its Educational Support Inputs Ministry of Education, (1994) states that adequate attention must be paid to the provision, distribution, and use of educational materials, technology, and facilities to promote quality relevance, and expand education. One of the objectives of education is to help people improve, change, develop, and protect their environment for an all-inclusive development through the diffusion of science and technology into society. This shows the Ethiopian education and training policy wants to add technology as a medium to explore a wide area of knowledge. Some schools take advantage of the use of social media as a teaching aid (Tamayo, 2014).

There is also a mention in research that social media can be used for education support. According to the research Peter, (2015), many students at the University of Lagos in Nigeria are addicted to social media. For this, the researcher advised that social networking sites be enlarged and new pages developed to boost learning and prevent declines in the student's academic performance. The researcher also advised that teachers and parents supervise students' use of social media for educational purposes. The research analyzed data shows students' social media use makes them less focused on their academic activities. By facing problems like Westing their precious time on social media and using it more for entertainment and pastime purposes. A framework is needed that can systemize the use of social media by the students. According to Lutkevich (2023), a framework is a physical or mental structure created to assist or direct the development of additional, valuable components. Can be issued and applied by any organization, public or private.

The researcher proposed a framework by taking an acceptable use policy for the proper use of social. From the perspective of information technology (IT), an acceptable use policy (AUP) (Rouse, 2016) is a document that outlines a set of guidelines to be followed by users or customers of a collection of computing resources, which could be a computer network, website, or large computer system. What a user is and is not permitted to do with these resources is made explicit in an acceptable use policy (Kirvan, 2023). An acceptable usage policy outlines what a user may and may not do when utilizing computers and other computing resources from the perspective of information technology (IT). This will apply to whether or not the device is provided by an organization and, if it is a user's device. In this research case, it means student's smartphones or other students' social media accessing devices such as tablets and laptops.

A policy of acceptable use spells out the appropriate and unacceptable conduct and actions, which is beneficial. Acceptable use policies also provide a company with a legal mechanism to compel and they describe penalties for noncompliance.

Following an acceptable use policy, it can be said that access to school electronic technologies is limited to educational purposes which include the use of School Electronic Technology for teaching tasks, education research, professional or vocational training, and administration. Because of the impact that social media has on students' academic performance, it is important to take this into account in our research.

The framework of improved social media use for the improved academic performance of Ayertena secondary school students, the relationship can be expressed as the use of social media for Knowledge (School readiness, the school management support, and students' readiness) and reduce the average time spent on social media for entertainment (School readiness and students' readiness) as independent variable and improved academic performance as dependent variable.

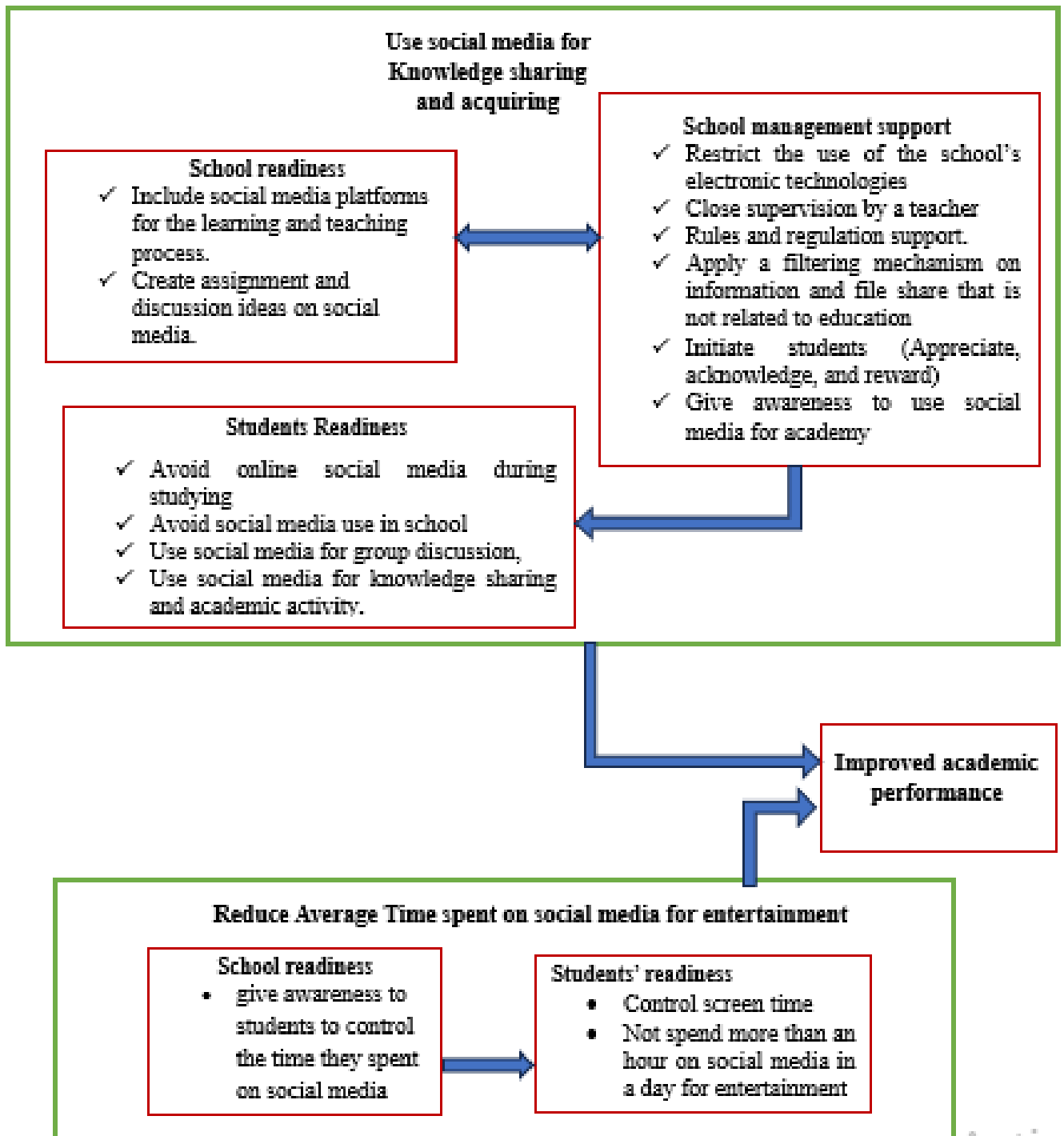


Figure 4. 3 Proposed framework for improved social media use

Use social media for knowledge acquiring and sharing: -

From the research results use of social media for knowledge has a strong positive relation with academic performance. This means the students who use social media for knowledge have greater than very good academic performances than those who use social media for another purpose. In the above framework, the arrow goes from the use for knowledge to improved academic performance which means the use of social media for knowledge is an input for improved academic performance.

The three categories inside the use for knowledge category are identified as mechanisms for making students use social media for knowledge.

- ✓ School readiness: - the school has to include social media platforms for the learning and teaching process to divert students to use social media for knowledge purposes. This can be practiced by creating assignments and discussions on social media.
- ✓ School management support: -managemental support is more important to apply rules and regulations including effective close supervision by teachers not to use schools' electronic technology for social media at school even personal electronics technology, appreciation, acknowledge, and reward students who use social media for knowledge. The arrows between students' readiness and School management support show they are supportive of one another.
- ✓ Students Readiness: - students should be ready to improve their social media use by avoiding online social media while studying, avoiding social media use in school, using social media for group discussions, using social media for knowledge sharing and academic activity, and using material from social media for study. There is an arrow that goes from School management support to students' readiness which is School management support is basic for giving awareness on the use of social media for knowledge and increasing their readiness.

Reduce Average Time spent on social media for entertainment: -

From the study result it is observed students have to improve their social media use by minimizing the average time they spend on social media. Those who spend more than 4 hours, 3-4 hours, and an average time of 1-2 hours in a day on social media have satisfactory up to poor academic performances. However, those who spend an average time of one hour and less than 30 minutes in

a day on social media have very good and excellent academic performances. This means students have to reduce the average time they spend on social media for improved academic performance. For this applicability two factors are identified: -

- ✓ school readiness: - schools should take responsibility to give awareness to students to control the time they spend on social media.
- ✓ Students' readiness which is students should control screen time and avoid spending more than an hour on social media in a day to avoid the impact of social media on their academic performance. The arrow goes from school readiness to student readiness showing us for students to be ready the school pressure and involvement are important.

4.8.1 DEMONSTRATION OF THE PROPOSED FRAMEWORK

Hevner et al. (2004) suggested that there is a need to prove the functionality, quality, and efficiency of the designed artifact. The attributes of such functionality, completeness, coherence and accuracy, performance, reliability, usability, and conformity with the organization and other corresponding quality criteria shall be taken into account.

Accordingly, the proposed framework was demonstrated to the school director, ICT teachers, students who participated in the questionnaire, and the ICT infrastructure manager. The explanation was given by the researcher for the participants understanding.

4.8.2 FRAMEWORK VALIDATION USING EVALUATION SURVEY

Expert validation through an evaluation survey is done to evaluate the objective of the proposed framework the school director, two ICT teachers, and four students participate in the questionnaire, and the ICT infrastructure manager checks it based on the problem the students face in their academic performance by using social media. This helped evaluate the completeness, clarity, suitability, understandability, correctness, and applicability of the framework. All 8 participants completed the survey with a 100% response rate. The evaluation of results is analyzed below.

4.8.3 EVALUATION RESULT OF THE PROPOSED FRAMEWORK

Table 4.20 shows the mean of the evaluation of the proposed framework. The content of the evaluation survey was mainly focused if the proposed framework was complete, clear, suitable, understandable, correct, and applicable. The correctness, and clarity of the proposed framework took the highest mean 4.6. This indicates the respondents agree that the framework is correct, and

also clear. Both the applicability of the proposed framework and its usefulness to avoid the impact of social media on the academic performance of students taking the second highest mean value 4.5 the understandability of the framework mean value is 4.4. The organization and presentation of the framework are suitable and completeness has a mean value of 4.0.

The average result acquired from the evaluation survey of the proposed framework is very good. In addition, almost all of them agreed that it would be helpful to have improved social media use.

Statement	Strongly agree	agree	Neither agree or disagree	Disagree	Strongly disagree	Mean
The Proposed Framework is understandable	3	5	0	0	0	4.4
The organization and presentation of the framework are suitable	2	4	2	0	0	4.0
The contents of the proposed framework are correct	5	3	0	0	0	4.6
The contents of the proposed framework are complete	2	4	2	0	0	4.0
The proposed framework is applicable	4	4	0	0	0	4.5
The contents of the proposed framework are clear	5	3	0	0	0	4.6
The applicability of the proposed framework is useful to avoid the impact of social media on academic performance of students	4	4	0	0	0	4.5

Table 4. 19 Mean of the Framework Evaluation Survey

In addition, participants discussed and evaluated the framework's applicability. Individual discussions were conducted between the researcher and participants of the evaluation to gather additional feedback. According to their feedback, the researcher revised the proposed framework for improvement and added a statement "reward and recognition for students who apply social media for knowledge" to improve the proposed framework.

4.9 DISCUSSIONS OF FINDINGS

The study was taken to examine the impact of social media on secondary school students' academic performance. It was guided by three research questions: - What is the relationship between the factors of using social media and the academic performance of secondary school students? What is the relationship between the Average time spent in a day on social media and the academic performance of students? and What mechanisms should be suggested to improve social media use by secondary school students?

All the listed research questions are answered. The research questions' answers are discussed as follows.

The finding of this study shows that social media use has an impact on students' academic performance. This corresponds with the findings of Zewdu, et al. (2017) which reveal the use of social media affected the academic performance of female students and inversely corresponds with Legesse, (2016) study results that there is no relation between Social Network Site use and academic performance.

The finding shows that the use of social media for knowledge has a positive relation with academic performance. As they use social media for knowledge, they also have a valuable academic performance but as they use it for entertainment and pastime, results show us there is a negative relationship with academic performance. This has addressed the first research question that asks what is the relationship between the factors of using social media and the academic performance of secondary school students. The result of a study by Celestine et al.,(2018) revealed that the nature of social media activities in which the student engages does not have any significant impact on the student's academic performance which is inversely related to this research finding.

The finding of this study identified that the Average time spent in a day on social media for entertainment has a significant influence on the academic performance of secondary school students. Which addresses the second research question. Those who spend an average time of less than an hour a day on social media for entertainment has an Excellent academic performance but those who spend an average time of greater than 4 hours a day on social media for entertainment has poor academic performance. This goes in line with Celestine et al.(2018) finding which states that time spent on social media can negatively affect student academic activities and also with Mensah et al, (2016) finding that revealed students who lack time management can easily fall on the negative impact social media use.

Generally, based on the data analysis result using social media for knowledge, academic activity, and less average time spent on social media for entertainment has an impact on improved academic performance. This shows us what mechanisms should be suggested to improve social media use by secondary school students. Which can address the third research question.

Scholars recommended different mechanisms to avoid setbacks in the student's academic performance. Melani et al. (2017) recommended that social media should be used for educational purposes as well; Social Networking Sites should enhance academic activities and avoid effects on the student's academic performance.

Another research study in Ethiopia specifically on female students of Jima University by Zewdu et al., (2017) recommended as a solution that students of the university should access social media sites for academic purposes and limit the time, they spend on social media sites. There is support for this result Waleed et al. (2013) Conclusion, the majority of participants use social media to enhance their academic experience, but they must exercise restraint and time management. Unless social media use has a negative impact on student achievement in school. Another researcher Mensah et al.,(2016) believes that teaching children how to use social media for learning will eventually have a favorable effect on their academic achievement.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

This chapter presents the main conclusions of the research. Additionally, recommendations and suggestions for future research.

5.1 CONCLUSION

Due to rapid technological growth social media is also becoming part of everyone's life such as Workers, students, teenagers, and the society at large...etc. Secondary school students are also those who take social media into their lives. As we know secondary school students are teenagers. The age at which someone can be shaped and guided. Schools are formed for this purpose. But now a time social media is standing in their way to lead them to failure or success. This research is done on secondary school students' use of social media and its impact on their academic performances to suggest mechanisms for improved social media use.

As part of the data collection questions were used aiming to assess the impact of social media on the academic performance of students. A quantitative method was used for analyzing statistical findings to address the research question.

The result from findings of this study shows that, though social media have both benefits and effects on secondary school students' academic performances. Such as, distracting students from their academic work, taking most of their productive time and hours spent online is much more than to the number of hours spends studying. Also have benefits if they used it for academic and knowledge purposes, such as, sharing ideas, discussing assignments, take information gotten from social media to do assignments.

The first research question is on the relationship between the factors of using social media and the academic performance of secondary school students. a key finding showed social media use factors have a relationship with their academy. Because the relationship between social media knowledge and academic performances is a large or strong correlation. There is also a moderate inverse relationship between using social media for entertainment and the academic performance of secondary school students.

The result of the study indicates that there is a strong negative correlation between the average time spent in a day on social media for entertainment and students' academic performance. The

Average time spent in a day on social media is affecting their academic performance. Results show that students who spend a lot of time on social media for entertainment have the lowest academic performances than those who spend less time. Students with excellent (90-100) and very good (80-89) academic performances spent less time on social media for entertainment.

Factors of students' social media use affect students' academic performance. It is identified that those with the highest academic performance use social media for knowledge factor. But those with the lowest academic performances for entertainment and pastime. So, the researcher proposed a framework for improved social media use as a mechanism for students to apply proper use of social media to support their academic performance. The framework is designed from the analyzed data of the research and evaluated with very good satisfaction.

5.2 RECOMMENDATIONS

The execution of the proposed framework is recommended to improve social media use for Ayertena Secondary School. To exercise the proposed framework, it is recommended

- From the findings and conclusion, to increase students' readiness to be effective in their academic activities, minimizing the time they spend on social media activities, using social media for educational purposes, and using knowledge are the main points. So the management should seriously take it and give awareness to students and staff.
- To catch up with the student's readiness they should be followed up with teachers and parents on how they use these social media, as these secondary school students are teenagers, they need support and follow-up, and they should be educated on the influence of social media on their academic performance
- The Ethiopian education system should see how students take this social media platform to contribute to their academic work. It should create ways to make the school ready to be part of its system.

5.3 FUTURE WORK

Based on the findings of the research, the following suggestions are forwarded as future work: -

- The proposed framework was evaluated through a survey questionnaire; the researcher recommended further evaluation using action research to see its contribution to improving the use of social media for enhancing academic performance.

- In this study, the social media use factors are identified from other research findings, but conducting further factors using qualitative method help to improve the proposed framework.
- Additional research is needed to be done on the selection of social media platforms for knowledge sharing and acquiring.
- As per the recommended framework the need to design and implement a prototype that shows and secure how to optimize the use of social media to support an improvement in students' performance

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Appendixes and Annexes

Appendix A: - Questionnaire Outline

Questionnaire on social media impact on academic performance of secondary school students

Dear, Respondent

Postgraduate student Sadiya Temam here. I'm currently enrolled at Addis Ababa University's Master of Science in Information Systems program in Ethiopia. My research on the effects of social media on secondary school students' academic performance is one of my program accomplishments. I'm politely asking you to take part in the survey since it will help researchers better understand how social media affects students' academic performance. This survey is private. Nobody will link your comments to your identity, not even the researcher. Your involvement is entirely up to you. You have the option of not taking the survey, stopping your participation at any point, or skipping any questions you do not choose to answer.

Section I:- Please tick(√)the box based on the your choice.

Gender: Male Female

Grade: 9 10 11 12

1. Do you have smartphone?

Yes No

2. Do you use social media? e.g. Facebook ,TikTok...

Yes No

3. Which of the following social media website do you currently have an account with?

(Check all that you use)

Facebook Twitter Instagram LinkedIn

TikTok YouTube Telegram

Other (Please Specify)

4. What is your purpose of using social media website?

For knowledge

For communication

For entertainment

Other (Please Specify) _____

5. On an average how much time in a day do you waste on social media for entertainment?

- Less than 30 mins
- An hour
- 1-2 hours
- 3-4 hours
- More than 4 hours

6. In a week, which of the following social media websites do you visit most frequently?

- LinkedIn Facebook Twitter TikTok
- YouTube Telegram Instagram

Other (Please specify) _____

7. What is your go-to device to access your social media feed?

- Mobile Tablet Laptop Desktop

8. Do you use your social media accounts for your academic?

- Always Most of the time
- About half the time Once a while
- Never

9. When do you access social media websites?

- During my free time While at school During social occasions
- During meal times all

10. What is your current grade

- Excellent (90-100) Very good (80-89) Good (60-79)
- Satisfactory (50-59) poor (<49)

11. Do you consider your academy is affected by social media?

- Yes No Not sure

Section II: Please tick(√)the box based on the scores given, to express your agreement or disagreement to the following statements.

No	Statement	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1.	I use of social media more for communication than knowledge sharing with my class mate and peers.					
2.	Online social media distract me from my studies.					
3.	Hours I spent online is much more than to the number of hours I spend reading.					
4.	There is no improvement in my grades after I became engaged and spend more time into these social medias. After I became take more time in social media use there is a drop in my academic performance point					
5.	Most of the time I use social medias to complement and support what I have been taught in class					
6.	Social media is helpful in my studies because I can receive lecture notes from teachers.					
7.	Social media is helpful If include for education purpose.					
8.	I believe that social media can help in learning and teaching, if i can discuss assignments with my friends (through knowledge sharing and group discussion).					

Appendix B:- Proposed Framework Evaluation Questionnaire Outline

This survey is to evaluate the proposed framework with respect to its clarity, suitability, compatibility, correctness, and applicability. All information you provide will be kept confidential, and we would greatly appreciate it if you took the time to complete the questionnaire. The aim of this study is to propose a framework for improved social media use by students without affecting their Academy.

Introduction

1. The questionnaires are close ended.
2. Tick “√” in the box appropriately in front of your choice.
3. If you have any explanation or additional comment you can write it in the free space.

Statement	Strongly agree	agree	Neither agree or disagree	Disagree	Strongly disagree
The Proposed Framework is understandable					
The organization and presentation of the framework are suitable					
The contents of the proposed framework are correct					
The contents of the proposed framework are complete					
The proposed framework is applicable					
The contents of the proposed framework are clear					
The applicability of the proposed framework is useful to avoid the impact of social media on academic performance of students					

Appendix C: Proposed Framework Evaluation Interview Outline

1. Do you think the applicability of the frame work necessary?
2. Do you agree on the elements of the proposed framework?
3. Do you think the framework will help to avoid impact of social media on academic performance of students?

Thank you for your participation!!!

Appendix D: Interview Transcripts

1. Do you think the applicability of the frame work necessary?

“Of course, for proper use of social media by students with not affecting their academic activities, it’s important to have such guide and apply as it address the issue.”

2. Do you agree on the components of the proposed framework?

“Yes, I agree with the components of the framework. It is good that you if you add about reward for those apply social media for knowledge. Because, by nature people motivate by such things.”

3. Do you think the framework will help to avoid impact of social media on academic performance of students?

“The Framework clearly shows what students and schools should do to avoid impact of social media on academic performance of students, it guides what to be done. Hence, it will definitely contribute towards the issue .as an improvement the framework shall add what is expected from parents to reduce impact of social media on academics.”

Appendix E: Letter of Approval from the Ayertena Secondary school

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Addis Ababa University
College of Natural and Computational Sciences
School of Information Science
Addis Ababa, Ethiopia

Date: December 22, 2022
Ref No. SIS/108/2022/15

To Whom It Concern

Subject:- Student Sadiya Temam

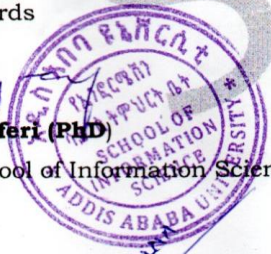
Dear Sir / Madam,

Student Sadiya Temam (ID.No GSR/5673/13) is a graduate student at the School of Information Science, Addis Ababa University. She is currently conducting M.Sc. Thesis research under the title "Impact of Social Media on Academic Performance of Governmental High School Students."

I would like to thank you in advance for all the assistance that you would provide to the student.

With Regards

Dereje Tefari (PhD)
Head, School of Information Science



Handwritten signature and notes in blue ink, including "የተፈጥሮና የኮምፒዩተር ሳይንስ ኮሌጅ" and "የኢንፎርሜሽን ሳይንስ ት/ቤት".



Annexes: Interview Details

No	Institution	Gender	Job Position	Involvement in research	Number of delegates	Date
1	Ayertena Secondary School	M	School director	Interview	1	September -2023
2	Ayertena Secondary School	M	ICT infrastructure Manager	Interview	1	September -2023
3	Ayertena Secondary School	F	ICT Teacher	Interview	2	September -2023
4	Ayertena Secondary School	2Male and 2 Female	students who participated in the questionnaire	Interview	4	September -2023
Total					8	