

# RESPONDING TO COVID-19 VIA ONLINE LEARNING: THE RELATIONSHIP BETWEEN FACEBOOK INTENSITY, COMMUNITY FACTORS WITH SOCIAL CAPITAL AND ACADEMIC PERFORMANCE

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Mohamed Idries Ahmed, Che Su Mustaffa, Nur Shazana Abdul Rani. Responding to Covid-19 via Online Learning: The Relationship between Facebook Intensity, Community Factors with Social Capital and Academic Performance. - Palarch's Journal of Archaeology of Egypt/Egyptology 17(3) (2020), 1-20. ISSN 1567-214X. 20 pages + 13 figures, 3 tables + 4 frames.

Keywords: Facebook Intensity, Community Factors, Academic Performance, Social Capital, Covid-19.

# **A**BSTRACT

The rapid adoption of social media technologies has resulted in a fundamental shift in the way communication and collaboration take place. As staff and students use social media technologies in their personal lives, it is important to explore how social media technologies are being used as an educational tool especially during a pandemic where teaching and learning has to be done via mediated communication. However, the question arises as to how effective the use of social media in terms of Academic Performance and Social Capital of the students. Academic Performance and Social Capital of university students are two interrelated and critical issues which can define the efficacy of social and academic activities of students at their universities. However, few studies have adopted a holistic approach to determine the direct role of online social network activities such as Facebook Intensity, and Community Factors on both Academic Performance and Social Capital of university students. Thus, this study attempted to conduct a cross-sectional survey using self-administered questionnaires which were distributed to 518 undergraduate students at the University of Sirte, Libya. The data was analyzed using various analytical techniques including descriptive statistics, preliminary and inferential analyses by using SPSS and PLS-SEM. The results revealed that Facebook Intensity and Community Factors significantly relate to Social Capital and Academic Performance. This study concludes that the intensity of Facebook Usage among university students and the interactions maintained by students can be used to develop Social Capital. Also, university students with good social communications skills and high self-esteem will benefit from interactions with lecturers and peers and these benefits will certainly enhance their Academic Performance. This study also demonstrates the potential of using Facebook as a teaching aid during pandemic.

#### Introduction

Disasters and pandemics pose unique challenges to higher education institutions. In response to the coronavirus disease 2019 (COVID-19) outbreak, most of the governments around the world have ordered a nationwide closure of schools and higher education institutions as an emergency measure to prevent the spreading of the infection. Public activities are discouraged. Massive efforts are being made by education institutions at all levels to create online courses and deliver them through TV broadcasts and the internet in record time. The new virtual semester has just started in many parts of the country, and various courses are offered online or via social media. These actions are helping to alleviate many parents' concerns about their children's educational attainment by ensuring that learning is largely undisrupted (Wang, Zhang, Zhao, Zhang, & Jiang, 2020)

As the usage of information communication and technology (ICT) continues to rise, the usage of social media in higher education is also continually growing and evolving with proponents tugging between its merits and demerits. The increasing rate of adoption of social network sites such as Facebook among university students has resulted in a fundamental shift in the way communication and collaboration take place. As the faculties and students use social media technologies in their personal lives, it is important to explore how social media technologies are being used as an educational tool especially during a disaster. Palen et al. (2009; Dabner; 2012) contend that by viewing citizenry as a powerful, self-organizing and collectively intelligent force, ICT has the potential to play a remarkable and transformative role in the way society responds to mass emergencies and disasters.

Currently one of the most commonly used social network sites is Facebook. Facebook, established in 2004, was initially designed to support a college network at Harvard University. It expanded to include high school students in 2005, corporate networks in 2006, and eventually anybody who wished to join. Facebook is accessed via an Internet connection and enables users to form a member profile. Facebook is now considered one of the leading social network sites used by students in higher education especially in a situation where staff members and students at the university are unable to access the physical campus, such as during the Covid-19 outbreak.

Given the popularity of Facebook with college aged students, it is not surprising that it has become an area of interest to researchers involved in higher education. Facebook is a prominent social network tool with many features and resources to keep up-to-date information for sharing, collaboration, communication, as well as co-creation of knowledge in higher education and also particularly in times of natural disasters (Dabner, 2012). Thus, the main objective of this paper is to examine the relationship between Facebook Intensity, Community Factors, Academic Performance and Social Capital in order to understand the potential of using Facebook as tools, features and resources, available through their web-environment and the social network site 'Facebook', to support teaching and learning during a disaster. The article aims to inform the use and design of social media in Libya and other higher education settings.

The remainder of the paper is organized as follows. A review of the literature is carried out in subsequent sections after a discussion on the problem statement, focusing on the benefits and uses of Facebook. The next section outlines the research method. Finally, in the last section, six

conclusions and recommendations have been presented along with the constraints and opportunities for future research.

## PROBLEM STATEMENT

Social media and Web 2.0 tools are already impacting higher education, with the majority of learning management systems used in higher education incorporating these within their feature sets, supplementing those freely available on the Internet. However, there has been some notable level of concern among researchers on the intensity of Facebook usage claiming that perhaps much time has been expended by Facebook users in online activities and less time devoted to studying (DeLeeuw & Mayer, 2008; Karpinski & Duberstein, 2009) thus, spawning the debate regarding the influence of social networking sites on students' Academic Performance (Ahn, 2011). Moreover, a glimpse of popular social networking sites pages shows the constant expression of many students' worry of being unable to pay proper attention to their academic work as they are distracted by social activities on Facebook (Karpinski & Duberstein, 2009).

The proliferation of Facebook usage has been argued to have notable implications on students' academic activities, performance and social engagements. Facebook is one of the most popular networking sites that is widely adopted among university students in the Middle East and North Africa (MENA), and particularly in Libya. Reports have revealed that, university students from these regions use Facebook for a number of activities. Among the most noticeable activities on Facebook of youths and university students are building and extending their social networks through Facebook connections. Also, students use Facebook for sharing and sending educational and important information (Elmahjub, 2014). Additionally, reports have shown that, the newly-found freedom on Facebook by Libyan youths is fuelling growth of socialization and engagements among university students (Gemmill & Peterson, 2006). Another report also demonstrates that, university students are the largest proportion of the population that use computers and the Internet intensively mainly for various purposes, with about 46% using them to complete their school assignments, 36% employing them either for e-mail or instant messaging or both, while 38% of these students use computers and the Internet to play computer games (DeBell & Chapman, 2006; Raju, 2014).

The review of previous studies revealed that Academic Performance as well as Social Capital of college students are the two interrelated and critical issues which define the efficacy of both social capital development and academic performance of students on their campus. Academic Performance is known as the reflection of students' willingness to participate in academic activities, the precondition to the effectiveness of learning (Ozer, Karpinski & Kirschner, 2014). Meanwhile, Social Capital defines the beneficial outcome of relationships and networks maintained by students through interactions, engagements and participations in and out of classrooms. As crucial as these two factors appear in determining the survival of students throughout their college lives, previous researchers have studied both Academic Performance (Stumm, Hell & Chamorro-Premuzic, 2011; Li, Chen & Duanmu, 2010; Lugayila, 2002; Akessa & Dhufera, 2015) as well as Social Capital separately (Resnick, 2001; Williams, 2006; Donath & Boyd, 2004; Wellman et al., 2001; Kavanaugh, Carroll, Rosson, Zin, & Reese, 2005). Therefore, this study, explored a holistic path by incorporating the factors that determine university students' Academic Performance in addition to Social Capital development collectively.

Additionally, the current body of literature is filled with studies on Academic Performance as well as Social Capital mostly from advanced countries among which are the United States, United Kingdom, Australia and Canada. These studies have found that numerous factors affect the Academic Performance and Social Capital development among university students. These factors, according to previous studies (Tailab, 2013; Zainol Abidin, Pour-Mohammadi & Alzawari, 2013), include lack of attitude, low level language skills and poor interaction between the students and the faculty members (Tailab, 2013). These factors and many other adversaries are pertinent with the conditions of university students in Libya. However, identifying the factors that impact Academic Performance in addition to Social Capital of university students in Libya and many other underdeveloped nations in Africa and among Arab cultures has received minimum or no attention from previous researchers (Zainol Abidin, Pour-Mohammadi & Alzawari, 2013). Based on the findings in literature, it is still hard to determine if the adoption of Facebook will have a positive or negative impact on students' Academic Performance and Social Capital Development (Enikuomehin, 2011; Nayef & Lamia 2012; Thuseethan & Kuhanesan, 2014). As such, this study aims at filling the gap by assessing the role of Facebook Intensity on the development of Social Capital and the enhancement of Academic Performance among Libyan students.

One of the main reasons why the inconsistent findings regarding the consequence of adopting Facebook in relation to Academic Performance linger is because, there has been a level of discrepancy in the way Facebook adoption is being studied. Some researchers have studied Facebook by focusing only on the frequency of usage and the amount of time spent by students on Facebook (Ellison, et al., 2007; Pettijohn, et al., 2012). However, there is a dearth of studies on the intensity of Facebook usage by considering the dimensions of the emotional use of Facebook, time spent by students on Facebook and the relationships that are established on Facebook (Al-Rahmi, & Othman, 2013; Blachino, 2013). In response to this therefore, this study filled the above theoretical gap through the findings on the effect of Facebook Intensity on Academic Performance and Social Capital development of university students.

Previous studies have reported Community Factors, such as interactions with lecturers and peers in classrooms and student engagements and participations in social activities, have significant impact on university students (Krause & Coates, 2008; Kuh & Hu, 2001). However, few studies have exclusively focused on the direct effect regarding these Community Factors on both Academic Performance and Social Capital (Gunuc, 2014; Gunuc & Kuzu, 2014; Harper & Quaye, 2009). Furthermore, there is a dearth of research that investigate student engagement jointly as Community Factors on university campus and Academic Performance (Al-Rahmi & Othman, 2013). In view of this, this research aimed at identifying the influence of Community Factors with regards to students' Interaction with lecturers, students' Interaction with Peers and Students' Engagement with social activities on campus in improving their Academic Performance and Social Capital development.

In view of this, Facebook has grown into a worldwide phenomenon and researchers have been interested to consider the role of the increased adoption of Facebook on students' academic and social lives. The motivation of such an investigation is that Facebook, like many other social media platforms, is embedded with functions and features that influence the capabilities of students' academic performance and enhance their social capital developments. These potentials can be situated under the theoretical perspectives of Social Networking Theory and Social Information

Processing Theory. The former can be used to explain how communications, friendship on university communities and the overall intensity of Facebook usage influence social capital development among students (Borgatti & Halgin, 2011). Meanwhile, the latter is suitable for examining how the processing of information and communication on Facebook platforms contribute to students' academic performance. However, these two theories have been rarely employed by the previous researchers of both Academic Performance and Social Capital.

Based on the issues discussed in the background section and the gap highlighted in the problem statement section, this present study sets the following research questions:

- i. Is there any relationship between Facebook Intensity, Community Factors and the Academic Performance of university students in Libya?
- ii. Is there any relationship between Facebook Intensity, Community Factors and the Social Capital development of university students in Libya?

Relationship between Facebook Intensity and Academic Performance

Social media technologies, especially Facebook, have gained wider acceptance among college students to the extent of becoming the primary tool for connection, interaction, communication and networking among peers, lecturers and families (Al-Rahmi & Othman, 2013). Ellison et al. (2007) also added that Facebook, as well as other social media technology platforms, has been a significant platform for sharing information, a channel for interacting with peers and a channel for socializing. These potentialities of Facebook have evoked empirical investigations among researchers to determine how the intensity of using Facebook among university students affects their learning performance.

Johnston et al. (2013) investigated the role played by Facebook on South African students. The study found that the use of Facebook among students improved the relationship among them and it is found to be the fastest way to share information among them. The findings showed that Facebook Intensity has a strong relationship with students in South Africa. In another study by Ogedebe et al. (2012) on Facebook usage in public and private universities in Nigeria, the authors established a relationship between Academic Performance and Facebook usage among the students. The result of the study showed that students' Academic Performance decreased when they spent more time on Facebook.

Jamil et al. (2013) studied the influence of Facebook Intensity on students' Academic Performance in a private university in Pakistan and found that there was no impact between Facebook Intensity as well as Academic Performance of students. In addition, Chen (2014) examined the influence of Facebook users to continue usage of Facebook in Taiwan. The study revealed that users of Facebook are willing to continue using it when they perceive the benefits of using Facebook to communicate and interact with their friends and family. Therefore, the author was uncertain whether Facebook has a positive influence on the user which led to continued usage of Facebook.

Ghareb and Sharif (2015) studied the effect of Facebook Usage on undergraduate students in Iraq and their findings indicated that students spend a lot more time on Facebook than their study that is, they use Facebook for other purposes. The results revealed that spending more time on Facebook has a negative effect on students' Academic Performance and spending less time on Facebook has a positive effect on their studies. The authors concluded that Facebook has both negative and positive effects on undergraduate students in Iraq. In addition, Ziani et al. (2015) studied the

use of Facebook by the youths of Libya and Bahrain. The study found that most of the respondents from both countries use Facebook to make friends and to stay connected with friends and others use Facebook essentially for entertainment and recreation. The author revealed that there are significant differences between the Libyan and Bahraini youths in using Facebook.

A study by Gupta, Singh and Marhawa (2013) found that the social network site (Facebook) plays an important role in giving a positive influence on the Academic Performance of the students in India. They mentioned that students in India use Facebook to engage in distance learning as well as sharing information for both academic and non-academic materials. In summary, the authors confirmed that the social network can improve students' Academic Performance by enriching their learning experience and maximising their learning methodology.

Meanwhile, Shen and Khalifa (2010), noticing that there was limited research done on social networking sites (SNS) outside of western countries, had tried to explore how Facebook usage can have an impact on Arab college students. While they found that Facebook usage had helped college students in the UAE with their self-identity, the study also found that rapid technological changes are somehow inseparable from the academic environment.

Young adults and teenagers have been acknowledged to be part of the greatest resourceful partakers in social networking sites and therefore at high risk of negative effects. Scholars in this area have recently discovered that young adults and teenagers use a significant part of their time on a daily basis chatting or browsing on social media. As a result, a lot of arguments and enquiries have been raised concerning the implications of the development of young adults and teenagers in social networking (Ahn, 2011) and Academic Performance of students in college (Bartlett & Wasley, 2008). Khan (2009) emphasized that Facebook users mostly perform poorly academically. Likewise, Englander, Terregrossa and Wang (2010) postulate that social media is negatively correlated with Academic Performance of college students in addition to the fact that its negative effects surpasses the benefits. This study offers justification in support of the assertion that Facebook is quite time consuming (Kirschner & Karpinski, 2010). However, it is still believed that a student interest in his or her area of study is still constant despite his or her engagement with Facebook. Self-dedication to the learning process in school is about being prepared to achieve the essential learning related obligations on daily basis, such as, consistent class attendance and prompt submission of assignments, beginning and getting involved in the college learning process, having deep relationship with class members, and being stimulated to study in order to attain the needful study requirements (Chapman, 2003; Jamil et al., 2013).

Researchers, Karpinski and Duberstein (2009) have recently found a negative relationship between Facebook use and academic achievement, while others did not find any relationship between Facebook use and academic achievement (Pasek, More, & Hargittaai, 2009). Therefore, parents, instructors, as well as education managers have remained unclear concerning the consequences, if there exists any, concerning students who use Facebook.

Additionally, Khan (2009) found that it is common among users of Facebook to perform poorly in their studies. Englander et al. (2010) stated that the reason for this is that the benefits of social media are less related to academic activities. In other words, the disadvantages of using Facebook supersedes the advantages. Nalwa and Anand (2003) added that among the

disadvantages of Facebook is it easily imbues addiction which will further cause students to ignore their academic responsibilities, and consequently cause them to fall short in the level of their Academic Performance. The stance posited by Nalwa and Anand (2003) was similar to the findings reported by Karpinski and Durberstein (2009) that Facebook users invested less time in their Academic Performance when compared to non-users of Facebook. Therefore, users of Facebook have lower GPAs as compared to non-users of Facebook.

A similar investigation was also done by Mehmood and Taswir (2013) that revealed indefinite findings among the respondents. From their surveys, some of the Omani students said that their Academic Performance was negatively influenced by the social network site (Facebook) as they were easily distracted by it. On the other hand, there were other students who revealed that the social network site (Facebook) gave them a sense of belonging (networking) besides being useful for information searches and creating strong communication networks that they can freely utilise to communicate with their peers and teachers. From the results, Mehmood and Taswir (2013) deduced that Facebook is an important tool in enhancing Academic Performance of the Omani students if it is wisely utilised.

In addition, a study by Helou and Rahim (2014) was done to discover the perceptions of Malaysian students on Facebook and the respondents said that the use of Facebook creates awareness, aids information gathering and sharing among students, and helps students to be more knowledgeable in their studies and overall environment. Moreover, Helou and Rahim (2014) deduced that the use of Facebook among Malaysian university students can strengthen their network cycle. There was also another study by Ainin et al. (2015) that investigated the subject matter in Malaysia which resolved that there is a positive link concerning Facebook Usage as well as students' Academic Performance.

Yang and Tang (2003) found that Taiwanese students use Facebook to build their friendship network and it has no significance on the students' Academic Performance. On the contrary, Wanjohi, Mwebi and Nyang'ara (2015) claimed that Facebook can positively contribute positively to Kenyan students' Academic Performance. They also suggested that time management skills should be introduced and taught to students as it can help them in time rationing for academic and leisure purposes.

However, an investigation by Junco (2015) pertaining to the relationship of Facebook usage and Academic Performance have produced some inconsistent findings. The author empirically observed the effect of Facebook usage and found that Facebook has a negative relationship with Academic Performance (GPA) of juniors, freshmen, and sophomores. On the other hand, the seniors excelled in their Academic Performance as they spent less time on Facebook and did not perform multitasking. A more confusing finding was reported recently by Harrath (2016) in a study conducted among 628 university students in Bahrain. The analysis of the study revealed that the usage of social network sites which include both Facebook in addition to Twitter have both negative and positive impact on students' Academic Performance.

Owusu-Acheaw and Larson (2015) conducted a study at West African State in Ghana and revealed that students spent 30 minutes to three hours on social network site (Facebook) on their electronic gadget. The results showed a negative relationship between social network site (Facebook) and Academic Performance of the Ghanaian students. After summing up the findings from a global view, the literatures revealed that in most cases, Facebook contributes positively towards students' Academic Performance (Gupta et al., 2013; Helou & Rahim, 2014; Mehmood & Taswir, 2013).

However, these positive contributions were argued to be moderated by the amount of time spent on Facebook (Junco, 2015; Wanjohi et al., 2015).

Narrowing down the findings to the Arab world, the influence of Web 2.0 applications that encompass all the social networking sites (Facebook) were argued to have changed the social relationship of the Arab world (El-Badawy & Hashem, 2015; Shen & Khalifa, 2010). Despite this, El-Badawy and Hashem (2015) found that social media is not having any impact on the Academic Performance of students in the study they conducted on college students in Egypt. Therefore, while social network sites have changed the way Arab students communicate, there has not been evidence that it negatively influences their Academic Performance.

An investigation on Saudi Arabian students by Shahzad, Alwagait and Alim (2014) employed a triangulation method for both qualitative and quantitative methods. The quantitative method has discovered a negative relationship between the use of Facebook and students' Academic Performance, whereas the qualitative method showed no relationship between the usage of Facebook and students' Academic Performance.

Besides that, another similar study conducted by Bijari et al. (2013) on the effect of Facebook towards Iranian students' Academic Performance then discovered that the usage of Facebook has a negative significance on the students' Academic Performance in relation to their GPA. By referring to the influence of Facebook in the Arab world, it can be deduced that the use of Facebook has a significant negative relationship on students' Academic Performance. Also, a similar research was carried out by Maqableh et al. (2015) where it was argued that there is a direct relationship between the usage of Facebook as well as Academic Performance. However, the nature of the relationship was not mentioned in their study.

Nonetheless, it is probable that the use of Facebook in this regard is qualitative purposeful, rather than quantitative. In this instance, therefore, Facebook usage has relevant impact on Academic Performance. When usage of Facebook becomes highly intensive for academic purposes and indispensable or serves as complimentary communication with others, positive effects on academic achievement could materialise. In contrast, in the case when Facebook is intensively employed for the sole purpose of recreation such as tagging photos, playing games, and watching videos, negative effects on an individuals' Academic Performance could be anticipated because in this instance, students possibly dedicate a greater part of their time on Facebook to the detriment of their study. What might be particularly pertinent concerning the negative effects of Facebook use on Academic Performance is whether Facebook use meddles with performance of academic activities when students engage in Facebook-related activities in classrooms or while reading.

A number of studies demonstrate that while today's students sit watching TV, they at the same time engage in text messaging or participate in Facebook interaction even while attempting their scholarly assignments, such as studying, and homework (Huang & Leung, 2009; Junco & Cotten, 2010). Notwithstanding, it is confirmed that regardless of how great one is at multitasking, no one can be as good and effective as concentrating on one thing at a moment, on the grounds that the movement forward and backward from one activity to the other expands the intellectual work (Jackson, 2008). Mayer and Moreno (2003) cited in Chandler and Sweller (1991) in their Cognitive Theory of learning and information clarified why multitasking may likewise negatively affect learning. In addition to that they borrowed the thinking from the Cognitive Load Theory which argues that the handling

limits of optical and vocal working senses are restricted, then additionally clarified that introducing excessively numerous components can lead to over-burdening, which consequently leaves some of the components unprocessed. Once cognitive procedures are over-burdened, an in-depth procedural routine and learning process becomes improbable (Mayer & Moreno, 2003). Cognitive Load Theory could clarify the negative impact of multitasking with regard to the split-attention impact.

Al-Saggaf (2011) carried out an ethnographic study of 15 Saudi girls aged between 19 to 24 years old at a private university in Saudi, who were users of Facebook. The results revealed a negative relationship between Facebook use and Academic Performance. Krischner and Karpinski (2010) also conducted a study on 219 university students on the impact of Facebook use on college students' Academic Performance. The outcomes indicated that the scores obtained by the students who use Facebook appeared much lower compared to their counterparts. It also revealed that the more time the students spend browsing, the lower their grades scores in the exams.

Haq and Chand (2012) investigated 384 samples of students then established that Facebook usage has a negative effect on student Academic Performance. The study also observed that both males as well as females expended an equivalent amount of time on the internet but the females make use of Facebook more than their male counterparts. It further established the adverse effect of Facebook usage on males compared to females with respect to Academic Performance. This was further rationalised with the argument that males devote much of their time on sporting activities and games compared to females. They concluded that and as a result of this time lost, Facebook use therefore has a bad influence on Academic Performance. However, a study conducted by Shiva, Fahimeh, and Ghani (2016) could not establish a significant relationship between usage of social media technologies with Academic Performance even though the study revealed that their respondents, who were university students, spent more than eight hours a day on social media.

Another study carried out on the issue of multitasking in classrooms found that students who use ICT and are involved in multitasking such as Facebook, text messaging, instant chatting, internet searching and emailing had a lower GPA; which means lower Academic Performance has a relationship with Facebook usage (Burak, 2012). The study considered that multi-tasking has high risk-taking behaviour and therefore, is expected to affect Academic Performance imperatively due to a longer time spent on social media like Facebook. This logic is essential, regardless of the positive aspect of Facebook. Similarly, according to Paul et al. (2012) research in one United States university established a negative relationship between the time students spend online on social networks and their Academic Performance. Therefore, the authors emphasised that this is due to the attention span students dedicate to multiple sources. This implies that Facebook and other social media must be used wisely and directed towards a fruitful engagement whether in classrooms or at home.

A similar review in the past segment, with respect to the change in social interaction and scholarly accomplishment, presumed that utilizing Facebook by students takes a lot of time which invariably has an adverse impact on their Academic Performance (Gafni & Deri, 2012). Utilizing cell phones for messaging and social networking accessibility was likewise investigated to find out whether it has relationship with getting involved in classroom activities and findings showed that engagement is firmly connected with educator's style and control. Likewise, the utilization of social networking and mobile messaging was not found to have any relationship with lower Academic Performance (Paul & Gelish, 2011). Such issues stress the

diversion that such networking causes, however, not to the level of taking a risk concerning Academic Performance. Facebook usage relates to students' character; while a number of students are affected by the usage, some others are not based on their disposition.

An investigation of a total of 239 Swedish college undergraduates who utilized Facebook, demonstrated that the excessive usage of Facebook by undergraduates causes poor Academic Performance (Rouis et al., 2011). Furthermore, the researchers submitted that self-discipline and objective focus coupled with execution are the characteristics of the undergraduates who are more in control of social media and are therefore, good in terms of Academic Performance. Also, another study carried out in the United States showed that the period utilized on Facebook is significantly related to negative performance of undergraduates. In addition, time spent by undergraduates in getting materials ready for classes, and committed to resource sharing, also revealed a significant relationship between Facebook and Academic Performance (Junco, 2012).

Alexander (2012) studied Facebook usage by 72 students who participated in the study. The result showed that Facebook Intensity has engaged the students too frequently to participate on Facebook, which students perceive as having a negative effect on Academic Performance. Another study examined the impact of Facebook Intensity on the Academic Performance of students. However, the outcomes from the study found that Facebook Intensity has a positive relationship with students' Academic Performance where the more they use Facebook, the more it will affect their studies (Ainin et al., 2015).

Facebook has been studied in both developed and developing countries to investigate and explore different setting and series of context of research. Hew and Cheung (2012) studied the decision by Singaporean students to use Facebook. The study found that students use Facebook to communicate with their classmates, either old or new, as well as to share information but they are not using it for educational purposes. The authors concluded that Facebook was used by students to maintain relationships with existing known friends such as former or current schoolmates and it has positive effects on students. Another study in Malaysia by Ainin, et al. (2015) studied the effect of Facebook usage on students' Academic Performance. The study revealed that Facebook has an influence on Malaysian students in university; the more active the students are on Facebook, the less effect it has on their study. Therefore, the result showed that there is positive relationship between the Facebook usage and student Academic Performance.

Relationship between Facebook Intensity and Social Capital

There has been a unanimous agreement in literature that Facebook is developed for creating social connections especially among university students (Pempek et al., 2009; Sheldon, 2008; Shen, Vodanovich & Khalifa, 2015). For instance, Sheldon (2008) demonstrated that university students used Facebook solely to make friendships either with people they have known or to meet new people. A different study examined by Lampe et al. (2006) demonstrated that the primary purpose of using Facebook is for friendship searching and consolidating offline relationships with classmates, groupmates and other acquaintances. In addition, Ainin et al. (2014) demonstrated in a study that involved 1168 students across Malaysian universities found that socialization is a significant factor that predicts students' usage of Facebook Intensity.

The notion of using Facebook for creating and increasing Social Capital

has also been researched although not yet extensively. For instance, Ellison, Steinfield and Lampe (2007) investigated the influence of Facebook use on Social Capital as mentioned earlier. The study deduced that strong relationships between Facebook use and the three forms of Social Capital exist. The study showed that the use of Facebook has the tendency of improving social relationships especially for students with low self-esteem. Also, another investigation by Steinfeild et al. (2008) using a longitudinal method argued that among year one and year two students, the high intensity use of Facebook increased their Social Capital. The author concluded that students' self-esteem has a moderating relationship between Facebook Intensity as well as Social Capital and the use of Facebook helps students break the communication barrier that they might experience during the formation of needed heterogeneous networks.

In determining the relationship between usage of Facebook as well as Social Capital, Raacke and Bonds-Raacke (2008) exhume why and what impact the use of Facebook has on college students' life. From the authors' empirical findings on college students, the results of their investigation revealed that students use Facebook to make new friends on campus as well as keep in touch with old friends. The conclusion from their study showed that Facebook use among college students could help them meet their communications and social needs.

Due to the reputation of Facebook among students, inquiries concerning the effects of Facebook use on Academic Performance and Social Capital have been conducted. Many studies have asserted that involvement in Facebook use has a relationship with students' Academic Performance. Nevertheless, Heiberger and Harper (2008) revealed that academic achievement and level of performance are quite related (Hwang et al., 2004; Steinfield et al., 2008; Yu et al., 2010). Beyond both Academic Performance and level of Academic Performance, it was considered that social networking among students and their colleagues and lecturers also serves as a dimension by which social acceptance, information, and knowledge support are obtained, which consequently make them develop fulfilment in life as a student, as well as self-esteem, and thus galvanise performance adeptness (Yu et al., 2010). In other words, it can be said that, the implication of social networking among students has its tentacles in the development of Social Capital among them.

Valenzuela, Park and Kee (2009), through empirical investigation of some 2,603 college students in Texas, United States, argued and justified the existence of positive relationship between usage of Facebook and effect of students' Social Capital. Burke, Kraut and Marlow (2011) found mixed findings in their study which indicated that to some Facebook users, receiving messages from friends and peers would build up their Social Capital, whereas, others do not perceive it as such. Further findings revealed that Facebook users who passively obtain their news indirectly build up their self-esteem and thus, they value their network cycle.

Based on the study by Pempek et al. (2009) it was discovered that Facebook offers new opportunities for youths to express themselves as well as to cooperate with one another. It was noted that amongst youths, relationships with peers are essential for producing offline benefits, generally referred to as Social Capital. The concept called Social Capital is a paradigm used to designate the benefits one obtains from one's relationships with other people (Lin, 1999). In relation to that, Ellison et al. (2007) suggested that intense Facebook usage is thoroughly connected to the construction and maintenance of Social Capital. The results of the survey of undergraduates at a university Facebook usage was discovered to be connected with a distinctive measure of Social Capital, comprising bridging

Social Capital as well as bonding Social Capital.

Further to that, Lee (2012) carried out investigation in the context of American students and established that young African-American students' personality traits have no significant relationship with the extent of time working on Facebook. However, the study revealed the importance of using Facebook in their Social Capital by sharing their personal interest among their networks. In addition, the investigation of Ellison et al. (2014) on students in United States concluded a positive influence of Facebook on Social Capital. Further argument by these scholars revealed that students gained several benefits in maintaining and interacting with their social networks that include investing and harvesting social gains from social resources that are easily accessible through a communicative environment.

More investigations regarding the use of Facebook and Social Capital or the influence of Facebook on Social Capital among students have caught the attention of scholars not only in the United States of America but virtually all psychologist scholars around the globe. For example, in the Middle East, an investigation by Jabr (2011) gave an insight that networking through Facebook helps build up an outstanding academic group that offers help to one another, thus, resulting in better academic achievement among groups and productive communication.

In the same way, an investigation by Hamade (2013) found a positive finding in the sense that Facebook helps students build up their networks, have strong ties with their families, as well as increase their involvement in social activities both on campus and outside campus. In a similar view, Mehmood and Taswir (2013), concluded after conducting an empirical investigation on Omani students that the use of Facebook and other social networking sites helps build a knowledge-based society especially among young learners. A study on Chinese students by Liu and Brown (2014) concluded that there is a positive influence of Facebook in increasing Social Capital among students. According to the scholars, these happened through the degrees of likes. Also, the effects were seen to have an indirect relationship with bonding in networks. With these, the authors argued that Facebook helps students to adjust to social life in the process of transiting into college residential life.

A similar study was conducted in Nigeria by Ofodu and Falasinnu (2014) by using purposive sampling in two different higher education institutions in Nigeria. They argued in favour of the positive influence of Facebook on Social Capital. Based on their empirical findings, the authors argued that students use Facebook in making friendships and keeping communication networks, obtain needed educational information, arrange group meetings, assignment discussions as well as sharing information on finding solutions to class projects and or assignments. Similarly, after conducting a study on Indian students in Bangalore, Francis and Scaria (2013) opined that Facebook can be of the greatest advantages to help build communication among network cycles and enhance social relationships, that is one of the principal factors constituting Social Capital if used in a constructive manner.

Among the few researchers that have focused on the implications of Facebook Intensity on Social Capital with an account from an Arab country is Nejadat (2012) who conducted a study among some working-class married women in Jordan. The study showed that 65.5% of the respondents have personal accounts on Facebook and their primary motives of using Facebook are to communicate with both new and old contacts, along with recreation, amusement besides to fill their leisure time, and to improve knowledge, then follow up with the up-to-date local as well as international

news.

In the same direction, Nomar (2011) in a study entitled "The use of social networking sites and their impact on social relations" which was conducted in Algeria, revealed that the major ratio of respondents spent above three hours daily using Facebook. According to the respondents of the study, Facebook is used for making comments, communicating and establishing relationships with friends and family. This research employed descriptive statistics however, it implied that one of the significant parts of Social Capital gains people get from Facebook is that it helps them maintain social connections, relationships and also serve as a source for education and entertainment. The above conclusions are in agreement going by the research done by Shen et al. (2015) among university students in the United Arab Emirates. The study demonstrated that one of the driving forces for using Facebook is for socialization. Also, the intensity of Facebook usage has a significant impact on bonding Social Capital among Facebook users.

In Jordan, the research carried out by Al-Dbaisi and Tahat (2013) and entitled "The role of social networks in shaping public opinion among the students of Jordanian universities". The research was based on descriptive methods through a questionnaire to examine the opinions of students to gather and analyze information. The findings disclosed the commonness of social networking amongst the students, in addition to the fact that these sites are important sources of access to information as well as news that eventually influence formation of public opinion which boosts the positive effects of the national spirit also loyalty.

In view of the few studies reported from Arabic counties, it is fair to say, the connection linked to intensity of Facebook use as well as Social Capital has not been intensively justified. Following the arguments proffered by previous studies, Social Capital predominantly in relation to social networking platform such as Facebook is mostly the resources accessible to individuals through their social interactions (Lin & Lu, 2000; Putnam, 2001). By and large, it is observed that users obtain numerous benefits of a various array of social interactions, which then indicate that the greater the level of interaction an individual has, the more he or she benefits from it. Many scholars have made reference to the fact that this is one of the foremost reasons that users join sites like Facebook; though, which is to preserve as well as increase their social networks (Ellison et al., 2007, 2011; Joinson, 2008).

# RESEARCH DESIGN

The broad objective of this study is to discern the connection between Facebook Intensity, Community Factors, Individual Differences, Academic Performance and Social Capital. Therefore, following the nature of the problem statements highlighted in this study, a quantitative research approach is employed in this study. This study employed the use of a quantitative research approach (Creswell, 2009). Also, the strengths of a quantitative approach over a qualitative approach, especially in terms of timing saving, cost effectiveness and the opportunity for investigating a large sample size are the main reason for employing the quantitative research method in this study. In specifics, the approach employed in this study focused on the descriptive and the hypothesis testing due to the objectives of this study, which aim at investigating and validating the relationships among the variables of this study.

The descriptive research was employed to identify the characteristics of the study population. According to DeVaus (2001); Sekaran and Bougie (2009), descriptive study aims at offering the researcher an opportunity of defining the relevant aspects of the phenomenon of the interest from the

perspectives of the individual, organisations or others. This was effectuated in order to gain a deep understanding of the nature of Academic Performance and Social Capital with a purpose of providing their associations with the independent variables especially from the context of the research respondents (Sekaran & Bougie, 2009).

Additionally, this study adopts the survey research design by using survey questionnaires for data collection (Creswell, 2009; Babbie, 2010). The use of survey design is the apt design for the quantitative method. When employing the survey design, the researcher does not have control over the independent variables that determines the dependent. As a result of the objectives of this study, a survey or non-experimental quantitative research approach was employed to administer the questionnaire used in this study.

This research was conducted in a cross-sectional design which involves gathering of data at a single point in time to achieve the stated objectives of the research. The choice of the cross-sectional design was in-line with Babbie (2010); Sekaran and Bougie (2009) which affirmed the use of cross-sectional studies as having advantages over the longitudinal study because the researcher, aimed at collecting data that reflects peoples' opinion and which is better obtained using cross-sectional and not secondary sources of data collection. In addition, it is affirmed that cross-sectional setting saves time, money and require a smaller number of researchers than the longitudinal study. As such, the above justified the choice of the research design.

## POPULATION OF THE STUDY

The target population for this study comprises 13,446 Libyan students who are studying at a selected university in Libya. Administratively, Libya is divided into four (4) regions comprising the Eastern, Western, Central and Southern region. Due to the fact, the South, East and West of Libya are currently embroiled in conflicts, the researcher decided to collect data from students studying at the only public university in the Central region, which is the University of Sirte. This is considered acceptable because the central region of Libya is considered the most cosmopolitan part of Libya where a considerable level of other regions of Libya are settled. Hence, the Central region of Libya is a perfect representation of Libyan national culture and norms. Since there is not much difference between the demographic profiles of university students across the regions of Libya, the population of this study is based on the Central region of Libya. As shown in Table 1, the students come from three different colleges namely Sciences, Economy and Arts.

Table 1: Population of the study

College	Number of Students
Sciences	4,486
Economy	5,738
Arts	3,222
Total	13,446

Source: Registration Department, University of Sirte

# SAMPLING

The target population of this study is the undergraduate students of Libya who are studying in the three selected colleges at University of Sirte, Libya. The study's population is fairly homogenous, that is, there is little variability in the characteristics of the population. The population of this study is

13,446 students. In order, to determine the sample size, the researcher refered to the table for determining sample size produced by Krejcie and Morgan (1970) which indicate that when the population is between 10,000 to 15,000, the sample size should be 375. For that reason, the sample size selected for this study is 375 respondents. Hence, proportionate - stratified random sampling techniques used to select participants from the colleges in all the sampled universities. Each of the sampled university was stratified to colleges (Sciences, Economy and Arts) and participants were proportionately selected according to the population of students in various colleges. Table 2 reveals the breakdown of the participants used for this study.

Table 2: Sample size

College	Sample size (n) /	Lay out	size of entire sample	Sample size	Percentage
Sciences	375	0.028	4,486	125	35.8%
Economy	375	0.028	5,738	161	35.6%
Arts	375	0.028	3,222	90	35.8%
Total	_		13,446	376	_

Operational Definitions and Measurement of Variables Facebook Intensity

Facebook Intensity operationally refers to the level of Facebook usage among students. The intensity of Facebook usage can be broken down into time used on Facebook, Emotional use of Facebook, in addition to Use of Facebook for Friendship. Emotional use of Facebook refers to the extent by which individuals are emotionally linked to Facebook, as well as how well Facebook is incorporated into users' day-to-day lives (Labrague, 2014). Time used on Facebook is measured with the intensity and the frequency of which an individual uses Facebook (Junco, 2012; & Junco 2015). Finally, Use of Facebook for Friendship is referred to how Facebook can be used to knot friendships and explain collaborations among friends on Facebook (Al-Tarawneh, 2014). For measuring Facebook Intensity, 22 items were adapted from previous studies. 12 items were adapted from Ellison et al. (2007) and Labrague (2014) to measure emotional use of Facebook.

# **Community Factors**

Community Factors in this study are measured in three dimensions namely; Interaction with Peers; Interaction with Lecturers and Student Engagement. Interaction with Peers is defined according to Astin (1993) as the interactions between friends and groups of people within a similar social group or people that share similar demographic attributes such as age, gender and lecture rooms. Interaction with Lecturers in this study refers to interactions, discussions and conversations between students and their lecturers and finally, Students Engagement refers to the engagement between students and their peers in the school environment. A total of 18 items were adapted from previous researchers to measure community factors and its dimensions in this study and 12 items were adapted for measuring Interaction with Peers and Interaction with Lecturers from Appleton, Christenson, Kim and Reschly (2006). Furthermore, eight items were adapted from Hart, Stewart and Jimerson (2011) to measure Student engagement.

## ACADEMIC PERFORMANCE

Academic Performance in this study is described as students' engagement

and commitment to academic activities. In other words, Academic Performance relates to students' behavior, attitudes and commitment to learning and education (Annie, Howard, & Mildred, 1996; Arshad, Zaidi, & Mahmood, 2015). Academic Performance is measured in this study with items adapted from Ali (2014), Catalano (2013), Wang and Holcombe (2010), and Yamin and Forsgren (2006).

## SOCIAL CAPITAL

Social Capital in this study is referred to as social networks, which are the connections among individuals with the essence of beneficial mutuality and trustworthiness that arise from among the social connections (Putnam, 2000). Based on the context of this study, social capital focuses on social connections between family and friends. Five items for measuring Social Capital were adapted from Stimson, et al. (2003).

# Questionnaire Design

The questionnaire in this study was developed into six sections. Section A, which is the first section, is for the general information of the respondents. Section B entails questions about Facebook intensity. Section C presents questions about Community Factors. Section D covers questions about Individual Differences. The following section, which is section E, contains questions on Academic Performance. Finally, Section F presents questions about Social Capital. A 5-Likert type scale which ranges from "1= Strongly Disagree to 5 = Strongly Agree" is used for rating responses of respondents (DeVellis, 2003).

Moreover, the results presented in Table 3 show that the Cronbach's Alpha value of the entire variables in this study is above 0.60 which depicts acceptable values, indicating that the items are reliable and internally consistent. However, one item (SFE3) was deleted to achieve an acceptable value.

Table 3: Reliability Analysis

Variables	No. of Items	Cronbach's Alpha
Facebook Intensity	18	0.802
Community Factor	16	0.867
Academic performance	5	0.768
Social Capital	5	0.765

## **D**EMOGRAPHIC PROFILE OF RESPONDENTS

This section presents the descriptive analysis of the demographic profile of the respondents. Out of 454 respondents, 60.8% (276) of the respondents were male, while the other 39.2% (178) of the respondents were female students. This distribution mirrors the gender differences in the majority of universities in Libya, where are often more male students than female students. Furthermore, the findings presented in Table 4 revealed that the majority (276) of the respondents forming 60.8% were aged 18 to 20 years old and the rest (178) forming 39.2% of the respondents were between the ages of 20 and 22 years. This finding confirmed the age brackets of university students in Libya. Also, the respondents in this study were young adults who were very much conversant with the issues of this study.

Furthermore, the descriptive study examined the numbers and type of friends the samples kept on their Facebook account. From the results presented by the descriptive analysis, it was observed that 92.1% (418) of the respondents kept estimated less than 100 friends on Facebook, followed by 5.71% (26) who had estimated Facebook friends between 601 – 900. In

addition, only 2.27% (10) of the respondents were found to have estimated Facebook friends of between 101-300. Moreover, the types of friends kept by the samples were investigated. The descriptive analysis of the result revealed that 49.3% (224) of the respondents have acquaintances as the majority of their Facebook friends, followed by 20.5% (93) who have college friends as the majority of their Facebook friends, 18.1% (82) have old friends as the majority of their Facebook friends, and finally 12.1% (55) of the respondents have siblings as the majority of their Facebook friends. The summary of the descriptive nature of the data was thus presented in Table 4.

Table 4: Background of the Respondents

Table 4: Background of the Re	врописния	
	Frequency	Percentage
Gender		
Male	276	60.8
Female	178	39.2
Total	454	100.0
Age		
18-20	276	60.8
20-22	178	39.2
Total	454	100.0
Years of Study		
	~0	12.0
First Year	59	13.0
Second Year	91	20.0
Third Year	96	21.1
Fourth Year	208	45.8
Total	454	100.0
Faculty		
Science/Engineering/Agriculture	65	13.0
Business/Economy	64	12.8
Arts/Law	90	20.5
Human Medicine/Medical Technology	85	19.4
Others	150	34.2
Total	454	100
Facebook Account		
Yes	454	100.0
No	0	0
Total	454	100.0
Internet Access		
Smartphone/Tablet	128	27.40
University's Computer lab	250	57.08
Home	48	9.13
Others	28	6.39
Total	454	100.0
Estimated Facebook Fri		
Less than 100	418	92.1
Between 101 to 300	10	2.2
Between 601 to 900	26	5.7
Total	454	100.0
Majority of Facebook Fr		
Same College	93	20.5
Old Friends	82	18.1
Siblings	55	12.1
Acquaintances	224	49.3

**Total** 454 100.0

## **FINDINGS**

Having identified objectives of this study by critically analysing the data, the findings are presented so as to provide an overall result of the study. Multiple regressions were used to examine the independent variables (community factors and Facebook Intensity) on Academic Performance and Social Capital. Multiple regression analysis using Enter Methods were applied with the confidence level of 99 percent (p<0.01) were adapted. This analysis also tested all the developed hypotheses.

Table 5 indicates the results of multiple regression analysis to examine the effect of Community Factors and Facebook Intensity on Academic Performance. Overall, Community Factors and Facebook Intensity significantly explained 36.2 percent of variance in Academic Performance (R<sup>2</sup>=0.36, F=40.77, p<0.01). It was also found that only one dimension entered has not significantly predicted Academic Performance, that was Facebook Times (B=-0.07, t=-1.71, p>0.05). Other variables were found to significantly predict Academic Performance as follows: Interactive with Peers (B=0.28, t=6.26, <0.01); Interactive with Lecturers (B=0.11, t=2.48, p<0.05); Student Engagement (B=0, t=2.09, p<0.05); Emotional Connection (B=0.21, t=4.193, p<0.01); and Facebook Friends (B=0.19, t=4.31, p<0.01).

Table 5: Effect of Community Factors and Facebook Intensity on Academic Performance

	В	T	Sig.
Interactive with Peers	.28	6.26	.00
Interactive with Lecturers	.11	2.48	.01
Student Engagement	.10	2.09	.04
Emotional Connection in Facebook	.21	4.19	.00
Facebook Friends	.19	4.31	.00
Facebook Time	07	-1.71	.09
$\mathbb{R}^2$	0.36		
F	40.77		
Sig.	0.000		

This study also attempted to examine the effect of Community Factors and Facebook Intensity on Social Capital. The results of multiple regressions to examine the effect are presented in Table 6. It was found that overall Community Factors and Facebook Intensity explained 37.1 percent of business performance social capital (R2=0.37, F=33.27, p<0.01). Out of six dimensions of Community Factors and Facebook Intensity, all of them showed the significant effect on Social Capital. They were Interactive with Peers (B=0.20, t=4.30, p<0.01); Interactive with Lecturers (B=0.12, t=2.64, p<0.01), Student Engagement (B=0.16, t=3.03<0.01), Emotional Connection (B=0.26, t=4.93, p<0.01) and Facebook Friends (B=-0.11, t=-2.26, p<0.05) and Facebook Time (B=0.17, t=3.91, p<0.01).

Table 6: Effect of Community Factors and Facebook Intensity on Social Capital

В	T	Sig.
.20	4.30	.00
.12	2.64	.01
.16	3.03	.00
.26	4.93	.00
	.12	.12 2.64 .16 3.03

Facebook Friends	11	-2.26	.02
Facebook Time	.17	3.91	.00
$\mathbb{R}^2$	0.37		
F	33.27		
Sig.	0.00		

## DISCUSSION

The main objective of this study was to investigate the relationship between Facebook Intensity and Academic Performance. In line with the objective, the first research question was formulated based on the assertions that the intensity of Facebook usage has significant implication on students' Academic Performance. Also, following the theoretical perspective of Cognitive Load Theory which proffered that the relationships among university students bridges relationships and connections, these connections naturally beget certain benefits (Kadushin, 2004; Nohria & Eccles, 1992). Such benefits are expected to entail improvement in Academic Performance of university students who use a substantial amount of their daily time on Facebook and employ Facebook for establishing friendships and connections among their peers (Ahn, 2011; Al-Rahmi & Othman, 2013; Shen & Khalifa, 2010). This study relied on the arguments found in the previous studies to formulate the first research hypothesis.

Subsequently, the findings revealed that the intensity of Facebook did not have a statistical significance on Academic Performance. The findings implied that the emotional connections, friendship and time spent on Facebook did not have any significant implication on the Academic Performance of university students. The findings of this research, with regards to the relationship between Facebook Intensity and Academic Performance, were incongruent with a number of previous studies that have reported a positive and significant relationship between usage of Facebook and Academic Performance (Ainin et al., 2015; Chen, 2014; Gupta et al., 2013; Johnston et al., 2013; Mehmood & Taswir, 2013; Nalwa & Anand, 2003; Ogedebe et al., 2012; Wanjohi et al., 2015). However, this research is among the pioneering study in the context of Facebook Intensity among university students in Libya. This study's finding provides a clearer insight to the analysis presented by Qubah and Al Daihani (2015) who researched both Libyan and Bahraini university students and revealed that students from Libya used Facebook essentially for entertainment and recreational purposes. This study further clarifies that Libyan students do not relate their activities on social media with their academic activities. This implies that the intensity of Facebook usage among university students in Libya does not have any meaningful impact on their learning and academic pursuit.

The findings of this study are different from the reports presented by other researchers (e.g., Bijari et al., 2013; Ghareb & Sharif, 2015; Khan, 2009; Kirschner & Karpinski, 2010; Karpinski & Durberstein, 2009; Shahzad, et al., 2011; Yang & Tang, 2003; Ziani et al., 2015) who unanimously asserted that the intensity of Facebook usage has a negative impact on Academic Performance. For instance, Khan (2009) asserted that Facebook users mostly perform poorly. Kirschner and Karpinski (2010) cited the excessive time consumption of Facebook usage as the major reason why Facebook has negative impact on Academic Performance. Also, Mehmood and Taswir (2013) found Facebook to be a distraction to academic activities among university students in Oman. Going by the findings of this present study, it is not to say that University students in Libya do not use Facebook or do not spend their time on Facebook for establishing connections and making friendship. Rather, the activities of the

students on Facebook and the intensity of Facebook usage have no significant impact on their Academic Performances such as understanding and managing course materials, or enjoying classes or participating in classes

The findings on the relationship between Facebook Intensity as well as Academic Performance were congruent with the findings reported by Pasek et al. (2009). Pasek and his colleagues could not establish any consequences of using Facebook on students' academic achievement. More relevantly, Yang and Tang (2003) reported that Facebook can be used to establish friendship and expand networks among university students. However, Facebook does not have significant influence on Academic Performance of Taiwanese students. Therefore, this study's findings presented certain similarity between Libyan university students and Taiwanese students. The implication of this study's findings is that university students in Libya see Facebook and the intensity of their activities on Facebook as essential for socialization and these activities do not contribute either positively or negatively to their Academic Performance.

The Relationship between Facebook Intensity and Social Capital

The second objective of this study was to identify the relationship between Facebook Intensity as well as Social Capital. To this effect, the second research question was raised. Also, the second hypothesis, which presumed a significant relationship between Facebook Intensity and Social Capital. The hypothesis was formulated based on the assertions from previous studies (Pampek et al., 2009; Sheldon, 2008; Shen et al., 2015). A substantial number of researchers have stated that the intensity of Facebook usage has significant impact on bridging and bonding Social Capital among university students (Burke et al., 2011; Ellison et al., 2007, 2014; Hamade, 2013; Jabr, 2011; Liu & Brown, 2014; Raacke & Bonds-Raacke, 2008; Shen et al., 2015; Steinfeid et al., 2008). Also, it has been firmly established by previous researchers that social media, most especially Facebook, assists in establishing relationships because it enables people with an alternative method of relating with others that share their beliefs or interpersonal objectives (Ellison, Heino, & Gibbs, 2006; Horrigan, 2002). These empirical findings are congruent with the theoretical perspectives of Cognitive Load Theory, as it proffered that the relationships are maintained among people with similar demographic characteristics. These relationships are said to yield certain benefits (Kadushin, 2004) which include Social Capital (Ellison et al., 2007, 2011).

The findings of this study therefore revealed that there is a significant relationship between Facebook Intensity and Social Capital. This implies that the intensity of Facebook usage among university students in Libya increases the development of Social Capital among students. Social Capital is understood, in this study, as types of benefits derived from relationships and interactions (Ellison et al., 2011; Lin, 1999). Therefore, the findings reported in this research affirmed that university students use the connections and friendships developed on Facebook to get emergency solutions to their problems, to get loans, to make networks which help them to get employment, and to make other beneficial relationships.

The findings reported in this research are in agreement with the findings reported by previous researchers who have determined the impact of Facebook usage on Social Capital (e.g., Burke et al., 2011; Ellison et al., 2007, 2014; Hamade, 2013; Jabr, 2011; Liu & Brown, 2014; Raacke & Bonds-Raacke, 2008; Steinfeid et al., 2008; Shen et al., 2015). Congruent with previous studies, this present study expounded how the intensity of

Facebook in terms of the emotional usage of Facebook, time spent on Facebook and friendships established on Facebook can increase Social Capital among university students in Libya.

# CONCLUSION

This study examined the relationship between Facebook Intensity (emotional use of Facebook, Time using Facebook and use of Facebook for friendship), Community Factors (Interaction with peers, Interaction with lecturers and Student Engagement), Academic Performance and Social Capital. The findings provide some insights that may help inform the future use of social media in higher education, an endorsement of proposal that social media can support collaboration, and in particular in times of crisis and disaster. In addition, the findings support researcher's suggestions that students have positive attitudes towards the social media platform Facebook and that their engagement with social media has become integral in their daily lives. However, the findings also suggest there needs to be a clear purpose to integrate social media within an institution's teaching and learning policy. All studies have limitations and as Facebook usage continues to grow in higher education, future empirical research is warranted.

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