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EFFECTIVENESS OF SOCIAL NETWORKS (WHATSAPP) AS A PLATFORM FOR ENHANCING STUDENT'S ACADEMIC PERFORMANCE

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Abstract

There is a current debate on whether or not WhatsApp is effective for improving student's grades. Though, findings show there is little research to back this claim. However, it has been found in other studies that the use of WhatsApp positively affects student grades as long as it's purely used for academic work. The present study re-established this fact by testing the efficiency of WhatsApp as a platform for learning using the adapted Unified Theory of Acceptance and Use of Technology (UTAUT) in determining factors that influence the use of WhatsApp Messenger in Students' Academic Performance. The theory was briefly described here with an overview of the four constructs in the UTUAT model which include performance expectancy, effort expectancy, social influence, and facilitating conditions - that would impact user behavior toward the acceptance and use of the WhatsApp application as a technological tool in learning. In the limit of these four constructs, a motivation construct was introduced in the model to expatiate the motive behind the user's behavioral intention of using and adopting new technology for learning. The study concludes by endorsing the utilization of the WhatsApp messenger in education, particularly tertiary institutions, which is seen as supportive learning technology that benefits both the students and lecturers.

Keywords: WhatsApp messenger, technology, students' achievement, learning tool, UTUAT.

Introduction

Recently, social media and instant messaging applications, otherwise known as social networks, have become popular means of communication within and outside one's society, and every society has one or two social networking platforms that are friendly to their users. However, across all countries, there are common social media networking sites that facilitate an easy communication process with an effective feedback mechanism that is popularly used by different age groups (Okuntade, 2020; Zulhanif & Roslinda, 2019). Several social media platforms such as WeChat, Google Meet, Telegram, Twitter, Instagram Facebook, and WhatsApp to mention just a few are used as a common means of social interaction. Also, social media networks have been utilized as platforms to create online social networks and relationships between people who have common interests, backgrounds, and real-world connections (Wigmore and Rouse, 2017). As a result, individuals now rely on these social media networks, which have grown more well-liked among the younger generation, to receive information, share ideas, educate one another, view current news, create and make jokes, and other data (Zulhanif & Roslinda, 2019)

In addition, the increasing popularity of these platforms has gradually crept into the educational community, and the usage of social media and instant messaging applications to promote learning has developed into an essential part of how people communicate in the modern world of teaching and learning (Okuntade, Abiodun, Ebimomi, & Melanie, 2022). The advancement of teaching and learning through social media has been at an alarming rate because it has become the order of the day and has developed into a useful tool for facilitating inter-person connection and has been of great benefit to our daily activities, in areas such as politics, religion, economics and education (Sharma, Singh, Leiva, Martin-Barreiro, & Cabezas, 2022). Its integration into processes of teaching and learning has become a necessity, particularly after the experience of Covid 19 (Okuntade, Aremu & Ebimomi, 2020; Okuntade & Ebimomi, 2020).
Originally, social media was never designed for educational purposes but now it has been adapted to play a vital role in modernizing global education systems by often providing new and innovative means of support to teachers, students, and the teaching-learning process (Okuntade, 2020; Dabner, 2012; Al-Mukhaini, Al-Qayoudhi, & Al-Badi, 2014). Its usage has significantly increased as a result of technological development which is characterized by digitalization. The use of social media platforms like WhatsApp, Facebook, Instagram, Telegram, and others is growing in popularity and predictability (Yeboah, & Ewur, 2014). The continuous growth of social media platforms within the technological space has the potential to enhance teaching and learning because they can easily run on hand-held devices (Okuntade, Abiodun, Ebimomi & Melanie 2022; Zulhanif & Roslinda, 2019)

In addition, the dynamic nature of technology coupled with the knowledge explosion has given rise to several social media platforms with great features which WhatsApp messenger was one. But positive reports on WhatsApp messenger from scholars such as (Khusaini, Suyudi, Winarto, & Sugiyanto, 2017; Amry, 2014; Zulhanif & Roslinda, 2019) as one of the most widely used social media platforms, with practically everyone using it regularly and real-time, this happens to be a good testimony to this application. It is a clear fact that WhatsApp facilitates communication between users through text, images, music, documents, and in addition to the current unique feature of group discussions, voice notes, video notes, and metal AI. As part of its good report, it can foster instant interactions, inspire reflection, and streamline the coordination of informal and formal learning (SimilarWeb, 2016; Statista, 2016; Yu, & Motlhabane, 2022). Mobile and web-based instant messaging service "WhatsApp Messenger" enables users to communicate with one another using a range of media, including text, image, video, and audio communications, both in real-time and at other times (Church & De Oliveria, 2013; Sahu, 2014). WhatsApp increases students' social interaction with one another and with their teachers, which promotes collaborative learning (Bouhnik & Deshen, 2014; Nguyen & Fussell 2016)

The dynamism of WhatsApp according to Sharma, et al (2022) has increased its popularity among students. Similarly, Yalcinalp & Gulbahar (2010) and Moro (2016) claim that WhatsApp is frequently utilized in higher education to improve conversations and information exchange between students and their professors. One may argue that the acceptance and usage of WhatsApp applications among higher education students is based on their level of maturity, technological knowledge, and their ability to handle and manage their learning situations. This suggests that cutting-edge software like WhatsApp applications provides a substitute for enhancing educational quality in higher institutions, and is effective in the learning process for students in the twenty-first century (Moro, 2016). Also, WhatsApp improved relationships, enhanced study motivation, individualized course materials, and developed cooperation skills are just a few of its advantages in higher education (Bano, Cisheng, Khan, & Khan, 2019; Rathbone, Norris, Parker, Lindsley,

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Robinson, Baqir, &Hush, 2019). According to a similar study, Yu, & Motlhabane (2022), Bouhnik & Deshen (2014), Church & de Oliveira (2013), and Nguyen & Fussell (2016) WhatsApp messaging can be a helpful tool for collaborative learning at any time or anyplace when restricted only for educational purposes.

WhatsApp messenger application assists students in creating learning groups, facilitating knowledge building and sharing ideas among group members (Amry, 2014). One piece of technology that helps individuals communicate more easily and quickly between two people and two communities is WhatsApp chat, which is available on desktop computers and mobile devices.

Practically, almost everyone uses WhatsApp, it's one of the most popular social networking sites used regularly including people in rural areas (Khusaini, Suyudi, Winarto, & Sugiyanto, 2017). It is a medium that enables user-to-user communication through the use of text, photos, music, documents, and as well allows functional exclusive group discussion (Church & De Oliveira, 2013). In higher education institutions, WhatsApp application is predominantly used for discussion between students and students and a times lecturers to students. Also, it helps motivate students to take part in group projects and discussions (Yalcinalp & Gulbahar, 2010). WhatsApp has been found useful and effective due to its low cost, accessibility, and ease of use (Church & De Oliveira, 2013). According to Bouhnik and Deshen in Hamad (2017), WhatsApp could help introverted learners learn, especially in a closed group setting because it would likely reduce or eliminate the anxiety associated with asking questions in front of other co-learners and directly to the teacher (Cifuentes & Lents, 2010; Smit, 2012).

As a tool for facilitating learning and communication, WhatsApp has been extensively used by undergraduate students of higher institution, its uses have not been limited to group discussions and lectures alone, but extends to class scheduling, coordination of assignment, and group projects (Cifuentes & Lents, 2010; Smit, 2012). Additionally, this platform has become the major means of informing students of class periods and lecture timetables. From personal experience, lecturers and students prefer checking college or departmental information on WhatsApp platform than checking the notice boards and other forms of traditional media. By and large, the significance of WhatsApp usage among students and lecturers is adding values to the teaching learning process as it has created conveniences for all and sundry.

Review of Literature on WhatsApp Usage among Learners

Researchers such as Cain & Policastri (2011), Lampe, Wohn, Vitak, Ellison, & Wash (2011); Madge, Meek, Wellens, and Hooley (2009) Towner & Munoz (2011), Arteaga Sánchez et al. (2014) and Norman, Nordin, Din, Ally, & Dogan (2015), agreed that WhatsApp offers an unstructured learning environment and can be used as an efficient educational tool. Similar studies have also reported the benefits of WhatsApp in the education cycle, for example Olaremu (2017) investigated the extent of WhatsApp usage among Benue State Polytechnic students. Also, Zaks and Lincon (2018) studied the usage of WhatsApp among students and its influence on academic achievement. In their summation, WhatsApp could create a conducive learning environment among learners and has been proven to support interaction, sharing of content and collaboration among peers.

Cetinkaya and Sutcu (2018) studied the effectiveness of WhatsApp Messenger as a tool for implementing mobile learning and claimed that "the learning environment is taking use of the quick astounding growth in information and telecommunications technology." An adjustment is being made to most educational institutions due to this phenomenon by upgrading their systems with modern technologies, of which mobile technology is at the heart. Further, other research work purports that "WhatsApp messenger would

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hold the potential capability to increase the learning process" (Smit, 2012), "learner participation" (Cifuentes & Lents, 2011), as well as "chatting among students in personal, school-related, and course-related subjects" (Yu & Motlhabane, 2022). These benefits have been pointed out in their findings by some scholars including the likes of (Yu & Motlhabane 2022; Nguyen & Fussell 2016; Bouhnik & Deshen 2014; Church & de Oliveira 2013) which supports, WhatsApp messenger would be learning an effective tool at any time, at any place, as well as a collaborative learning platform.

However, despite the overwhelming benefits of WhatsApp in learning, studies reveal some detrimental effect of excessive use of WhatsApp among students, Appiah (2016), DeFleur and DeFleur (2010) claims that being addicted to the use of WhatsApp messenger leads to distractions and exposure to unfiltered messages or content. Kuppuswamy & Shankar (2010) concludes in their findings that social network grabs student's attention, and then diverts it towards non-educational and inappropriate actions including sex-chatting. In addition, Gascon-Fondevila, Motto, Lopez-Polo, & Bernal-Mir, (2018) in their observational and descriptive study that included 332 Spanish university students. The statistics show that larger percentage of the students heavily rely on WhatsApp, with 97% of students using it more than ten times every day. The authors found that WhatsApp has a detrimental effect on academic performance, it makes students to lose concentration in their learning. Despite the negative consequences of using WhatsApp conversation among students, some researchers are still in support of WhatsApp having a favourable influence on academic achievement if guided and utilized appropriately.

Theoretical Framework

A lot of theories have been made to guess how users will accept and use certain technologies. Theories like Social Cognitive Theory SCT, (Bandura, 1986), Technology Acceptance Model (TAM) (Davis, 1989), Motivational Model. MM, (Davis, Bagozzi and Warshaw 1992), Technology Acceptance Model. TAM2, (Venkatesh and Davis 2000). Although, some of these theories are limited in one way or other. For this study, we think based on the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh, Morris, Davis, & Davis (2003) which gives a broad view of technology with four (4) ideas to show how likely someone is to use it. Marikyan & Papagiannidis, (2023) say this theory is good with a special look at using WhatsApp messenger as a tool for helping learn. Venkatesh, et al. (2003) put forward four constructs, namely Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions as determinants of the behavioral intention of technology users. An in-depth review of these constructs will explain the degree to which a user of new technology believes in the efficiency of such technology. The four constructs underpin the user's behavioral intention (BT) and use behavior (UB), respectively, as seen in the model below.

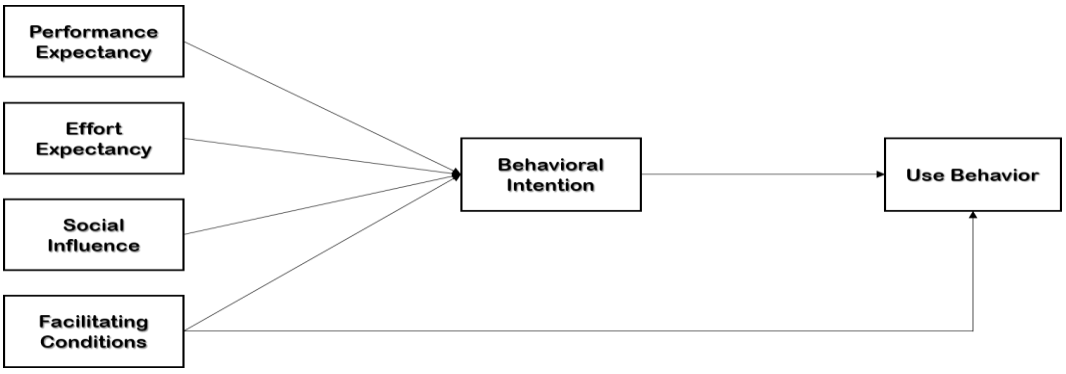

Figure1: Unified Theory of Acceptance and Use of Technology (UTAUT). Source: Venkatesh, et al (2003)

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In the above model, PE is used as the first condition of the use of any new technology. According to Zulhanif & Roslinda (2019), PE determines the uses of the WhatsApp messenger, as also in the study of Kocaleva, Stojanovik, and Zdravev (2014) insight to educator's behavior of accepting and using technology. Their findings show that performance expectations are the major determinants of technology acceptance and uses, which indicates that PE stands as the strongest influencer on the students to use technology. Venkatesh, et al. (2003) considers EE as the perceived ease or difficulty associated with the use of technology by users. Seconding Demissie (2011) argues that the effort expectancy forms one of the determinants for the acceptance and use of web-based applications. Regarding this study, the factor of effort expectation from experience reflects that learners feel at ease using WhatsApp as a tool that supports communication, social interaction, and also serves as a learning platform.

Another concept, social influence (SI), stands for the extent to which an individual feels that people around them, particularly those close, think it is necessary to adopt a new information system for their work-related communication. This is one of the key determinants that shapes people and organizations' perception of using ICT to achieve their tasks (Muliyati & Abdul Said, 2020). The last construct, facilitating condition (FC), explains that the user perceives that the utilization of the system is supported by a means of technical and organizational support for the foundation (Venkatesh & Morris, 2000). Facilitating conditions construct drives the conditions that directly impinge on user behavior and thereby impact the adoption of a mobile and web-based information system. Several studies have identified four constructs in different permutations as factors that influence the acceptance of a new communication model (e.g.; Mohamed, Sharif & Muhayiddin, 2021; Nurul Ain & Razzatul Iza Zurita, 2016).

The UTUAT model needs to include Motivation, which was found to be more important in complimenting the four constructs and was significant across a wide range of studies (Susilawati & Supriyatno, 2020; Alalwan, Dwivedi & Rana, 2017; Megadewandanu, Suyoto & Pranowo, 2016; Kondal, 2015). This study assumes that the individuals' use of WhatsApp messenger for learning can be further determined by motivation as an added construct and the wish for continuous use of the application. Therefore, in this study, motivation is defined as the motive or reason for which users accept and initiate the use of a specific technology to achieve satisfaction (the combinations of the four constructs), thereby resulting in user BI on such technology' use as illustrated in the modified model below.

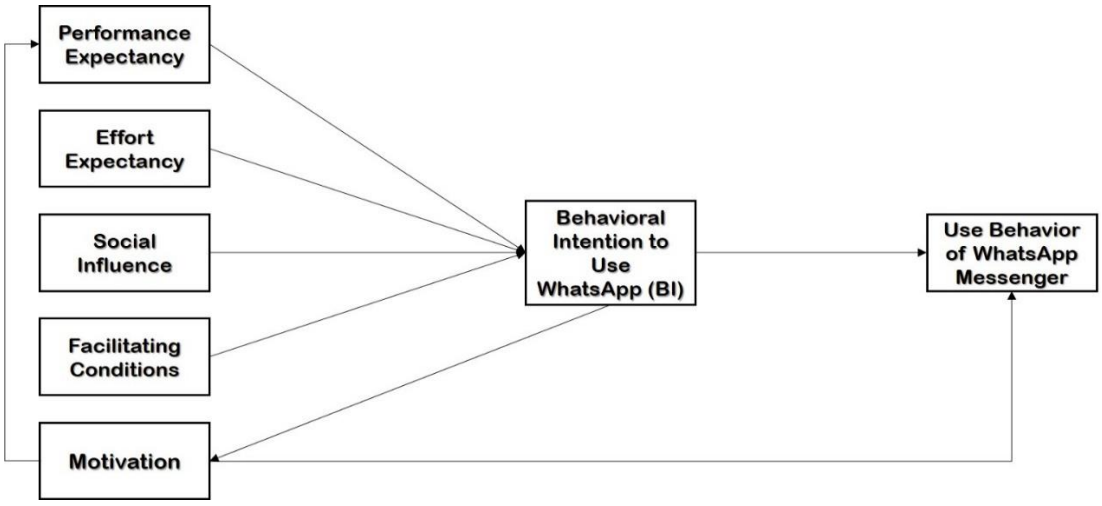

Figure 2: A modified Theory of Acceptance and Use of Technology (UTAUTM).

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From the above-modified model *in Figure 2*, the motivation to accept and use technology is a driving force that combines the other four (4) constructs to determine behavioural intention (BI) and use behaviour (UB) of WhatsApp. The analysis of the model is that user could be motivated to accept and use technology for learning, if the satisfaction (performance expectance) of such technology would meet the need of the user, enhance the expectancy effort and by implication increase the social influence of the users within the learning space, thereby making the user to acknowledge the condition of using such technology. The justification for adding motivation to the existing four (4) constructs is to improve on the model in line with this digitalized generations who are always interested to be engaged with flexible and accessible learning platform and as well gives credence to the significance of motivation in learning. If the performance of a technology meets someone's expectation, the user behavioural intentions (BI) could be motivated to continue in using such technology for learning.

The base line of this study is that (UB) can also be measured with the addition of motivation within the four (4) constructs to enhance users' acceptance and use of technology. In addition, the justification is also based on the findings of prior studies in the Information System (IS) and marketing domains which found that motivation and motive behind a particular technology was a significant predictor of user's technology use (Brown & Venkatesh, 2005; van der Heijden, 2004). Based on the UTUAT theory, the acceptance and use of WhatsApp messenger plays a vital role in the teaching learning process and has the potential to be applied both within and outside the traditional classroom. Therefore, this study emphasis is that the user behaviour (UB) of accepting and using WhatsApp application for learning may be motivated by the pleasure derived in the use of the technology as described in the above modified model.

Conclusion

The impact of WhatsApp messenger on students' academic performance in schools is a complex and multifaceted issue, and there is no clear consensus on the matter. On one hand, WhatsApp can provide students with a convenient and effective way to communicate with their peers and teachers, collaborate on projects, and access educational resources. On the other hand, excessive use of WhatsApp can be a distraction from academic work, leading to a decline in academic performance. Nevertheless, the negative reports are not changing situation regarding the popularity of WhatsApp among students and researchers found that it has positive influence on academic achievement if utilized appropriately. Therefore, both teachers and parents need to play a role in helping students to use WhatsApp effectively and responsibly, by setting clear expectations and providing guidance on how to use the application in a way that will enhances learning to achieve their academic goals and aspiration, rather than becoming addicted which could detract their academic performance.

Recommendations

It is recommended that:

1) Seminars, workshops and conferences should be organized on how to incorporate the use of social media network to teaching and learning.
2) Students should be wary of the kind of information they share or receive on WhatsApp
3) WhatsApp messenger usage in education process should be encouraged as a supportive learning technology for both students and teachers
4) There should be periodic check by parents on what the student are using WhatsApp for

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