*Vol. 4, Issue 1, 2019* *ISSN: (online) 2714-2043, (print) 0856-9037*

# OWNERSHIP AND USES OF SMART PHONES IN ACCESSING ONLINE MATERIALS BY UNIVERSITY STUDENTS: A COMPREHENSIVE STUDY FROM MOSHI CO-OPERATIVE UNIVERSITY

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***Abstract***

*Smart phones are becoming important devices of many people in their daily life. The University students are among the groups of people who circumstantial evidence shows that they own and use Smart phones in their daily life. But it is not known to what extent the students of Moshi Co-operative University (MoCU) own and uses these smart phones in accessing online materials. So this paper was aimed at answering these two questions which are: To what extent the students of MoCU own smart phones and to what extent they use these smart phones in accessing online materials. To accomplish this, the study took a sample of 348 students as a representative sample out of MoCU 3670 students. The sample included students from degree, diploma and certificate. Since these were not homogenous, the study employed stratified random sampling to get the sample. The representative students were studied and findings show that 85.6% of all students at MoCU own Smart phones. In uses of smart phones towards accessing online materials, the study revealed that, the students mainly use smart phones in surfing online, downloading tutorial videos, watching online tutorial videos, sharing learning materials on WhatsApp and accessing examination results on Moshi University Students Admission and Registration Information System (MUSARIS) to mention just a few.*

***Key words:*** Ownership, Smart Phones, Online Materials, University Students, and Moshi Co-Operative University

## 1. INTRODUCTION

The uses of technology in this digital era are inevitable since technology has become a part of almost everyone's life. In the recent years, the world has witnessed the massive discovery and changes in different fields of technology including mobile phones. The changes in mobile phones technology have resulted in smart phones which to some extent have replaced the uses of watch, calendar and radio to mention just a few (Dan *et al*, 2014). Smart phones provide users with time, calendar, camera, radio and services which were formerly provided by the computer like ability to browse, read and send e-mails (ITU, 2012). According to Global Special Mobile Association (GSM) report of 2015, half of the world's population has already subscribed to mobile phones and most of them own smart phones. This report added that, smart phones are now answerable for more than sixty percent of internet connections all over the world. Some of developed countries have been reported to have higher penetration of smart phones. For example, the Pew Research Centre (2018) reported that, 77% of all Americans own smart phones. The GSM report of 2017 on penetration of mobile phones (smart and feature phones) in Africa reported that, half of the population of Africa has already subscribed to mobile phone services (GSM, 2018). The penetration of mobile phones especial smart phones has also been noted in East Africa due to rapid growth of smart phones market. In 2015, Jumia report reported that, there are high growths of smart phone's market

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in Kenya (Jumia, 2017). Also, the report of Research ICT Africa (2017) shows that, 57% of Tanzanian population own smart phones and their penetration and uses has been noted even in rural areas. The scholars Ramadhani *et al* (2017), Magesa *et al* (2015) and Mtega (2012), in their studies advocated that, in rural areas of Tanzania, smart phones are used for accessing different information which helps the communities' members to make the right decisions. Moreover, several scholars have reported that, smart phones are owned and being used by different users including university students for accessing different information.

The study by Tossell *et al* (2015) in Malaysia, and another study by Loya and Anand (2013) at Sapient Institute of Management reported that, university and college students prefer to use their smart phones for accessing online materials than computers which are found in their universities. Study by Jesse (2015) in USA reported that, most students owns smart phones and use them for downloading apps which keep them connected to the society. The research conducted by Ketheeswaran and Mukunthan (2016) at the Open University of Sri Lanka shows that most students own smart phones but only few students are using them for accessing online study materials. Another study which dealt with uses and ownership of smart phones is the study conducted by Alfawareh and Jusoh (2014) at Najran University in Saudi Arabia. This study reported that, 94.4% of all studied students owned smart phones and 91.69% of these students use smart phones for accessing academic materials. The study by Harris (2014) reveals that 83% of college students use smart phones for education purposes. The study conducted by Shakeel *et al* (2017) on ownership of mobile phones shows that 61.3% of all studied students own one mobile phone and 26.3% own more than one mobile phones. The study by Michael (2013) on the uses of smart phones at Ball State discovered that 74% of the students are using smart phones for accessing study materials online. Moreover, Kamal *et al* (2012) of Alabama State University in their study reported that, university students own more laptops than smart phones. The study reported that 85% of all 134 studied student own laptops while 79% own smart phones. Moreover, the study done by Walter *et al* (2012) at South African University shows that, most students own smart phones and use them for interacting with others via SMS and calls. The study by Mwabungulu and Mungwabi (2015) on the impact of using smart phones among third year undergraduate's students revealed that most students own smart phones and mostly use it for watching videos.As it was found from the literatures, smart phones are becoming the important part of the daily life of University Students worldwide but it is not known to what extent the students of Moshi Co-operative University (MoCU) own and use these smart phones in accessing online materials. So this paper aimed at answering these two questions which are to what extent the students of MoCU own smart phones and to what extent they use these smart phones in accessing online materials.

## 2. METHODS AND METHODOLOGY

### 2.1 Study area

The study was conducted at MoCU. MoCU is one of the five higher learning institutions which are found in Kilimanjaro Region. Other higher learning institutions found in Kilimanjaro are: Mwenge Catholic University (MWECAU), College of African Wildlife Management, Kilimanjaro Christian Medical University College (KCMUCO) and Stefano Moshi Memorial University College (SMMUCo). MoCU was chosen based on three criteria. The first criteria was location of the researcher. The researcher is employee of MoCU so it was easy for him to access the respondents who were the students of MoCU. The second criteria was budget. The budget was not enough to allow researcher to visit and collect data from more than one University which are located in different areas in Kilimanjaro region. The third criteria were number of students. MoCU has 3,670 students (MoCU Admission

Book, 2017/18). The rest four Universities have less number of students when you compare to this.

### 2.2 Research Design, Data Sources and Data Collection

The study applied a descriptive research design. This type of research design involves gathering data that describe events and then organizes, tabulates, depicts, and describes the collected data (Glass & Hopkins, 1984). This descriptive research design enabled the researcher to describe ownerships and uses of smart phones among university students since the data collected were analysed to determine descriptive statistics such as frequencies and percentages. Moreover, this paper involved primary data only. Sources of primary data were students who are studying at MoCU. Questionnaires were distributed to selected students to collect data on ownership and uses of smart phones.

### 2.3 Sampling, Sample size and Data Analysis

The study included students from degree, diploma and certificate programmes. Since this population is not homogenous, the study employed stratified random sampling whereby the population was stratified into three strata which were degree, diploma and certificate. After that, the simple random sampling was applied to select representatives from each stratum. A total of 348 students who own mobile phone were selected from these three strata whereby each stratum was represented by 116 students. This means that each stratum was represented by same number of respondents. The formula proposed by Kothari (2004) was used to find the sample size. This formula was selected due to fact that MoCU has a finite number of students. According MoCU Admission Book (2017/18), MoCU has a total of 3,670 students. The sample size for this study was computed by using the formula below and a total sample of 348 students were used as representatives for the study.

$$n = \frac{Z^2.q.p.N}{e^2(N-1) + Z^2.p.q}$$

Where by n = sample size
N= size of population
Z= is the score for confidence level 95% which is 1.96
p = sample proportion
e = Sampling error
q= 1-p, where q=0.5

Since MoCU has 3670 students, when we substitute in the above formula we get

$$n = \frac{(1.96)^2 x0.5x0.5x3670}{(0.05)^2(3670-1) + (1.96)^2 x0.5x0.5}$$

$$n = 348$$

The collected data from 348 respondents were entered into Statistical Package for Social Science (SPSS) for analysis to determine descriptive statistics such as frequencies and percentages.

## 3. FINDINGS AND DISCUSSIONS

### 3.1 Sex of Respondents

The findings in Table 1 show that majority of respondents in this study were females. It was found that out of 348 respondents, female were 183 which make 52.6% of all respondents. Males involved in this study were 165 (47.4%) respondents. Since this study involved respondents who own mobile phones, without considering whether it is smart or feature, these findings imply that, generally, most female students at MoCU own mobile phones. These findings also indicate that, female students are the most mobile's users at MoCU.

**Table 1: Sex of the respondents**

| Sex | Frequency | Percent (%) |
|---|---|---|
| Male | 165 | 47.4 |
| Female | 183 | 52.6 |
| **Total** | **348** | **100.0** |

### 3.2 Age of respondents

The majority of university students are aged between 17 to 25 years old. The findings in Table 2 show that, students who fall under age of 17 to 25 are 200 out of 348 which makes 57.5% of all studied students. This findings show that, most students at MoCU are aged between 17 and 25 years old. Students who joined university with age less than 17 years are 130 (37.4%) out of 348 students while those who joined with age between 26 and 30 years are 12 (3.4%) out of 348. Findings also show that, there are few students who joined university with age of 31 years and above. These findings show that most owner and users of mobile phones at university are students who are between 17 and 25 years.

**Table 2: Age of respondents**

| Age of respondents | Frequency | Percent (%) |
|---|---|---|
| Less than 17 years | 130 | 37.4 |
| 17-25 years | 200 | 57.5 |
| 26 -30 year | 12 | 3.4 |
| 31 years and above | 8 | 1.7 |
| **Total** | **348** | **100.0** |

### 3.3 Ownership of Smart phones

The findings show that there is higher penetration and ownership of Smart phones among students at MoCU. Table 3 show that, out of 348 students at MoCU, 298 (85.6%) own smart phones. Only 50 (14.4%) out of 348 students own feature phones. This higher ownership of smart phones among students poses the possibilities of enabling the students to access learning materials online. Only 14.4% of all studied students have no chance to surf online due to type of mobile phones they own.

**Table 3: ownership of smart phones**

| Types of mobile phone | Frequency | Percent (%) |
|---|---|---|
| Smart phones | 298 | 85.6 |
| Feature phone | 50 | 14.4 |
| **Total** | **348** | **100.0** |

### 3.4 Uses of Smart phones among Students

The findings in table 4 show that there are 298 students who own smart phones. All 298 students who own smart phones were asked to list applications or uses of their smart phones. The findings showed that 296 (99.3%) out of 298 students use their smart phones to surf online to get notes for their studies. It was also found that 264 (88.6%) students out of 298 use their smart phones to download tutorial videos while 276 (92.6%) out of 298 use their smart phones to watch online tutorials. Other uses of smart phones at MoCU are sharing of learning materials on social media like WhatsApp with fellows' students which involves 85.9% of all studied students. Only 2.7% of students share learning materials with their lecturers. There are students who use their smart phones to call colleagues via Facebook and WhatsApp on issues related to studies. This group of students makes 60.4% of all students. Only 2.3% of all students call their lecturers via Facebook and WhatsApp to seek more clarifications about several issues related to studies. All 298 students who own smart phones use them to access their results and academic progress reports at the Moshi University

Students Admission and Registration Information System (MUSARIS). The highest uses of mobile phones among university students show the importance of smart phones on higher learning institutions. Students with smart phones are in a good position of having good performance due to range of materials which they can access compared to those who own feature phones.

**Table 4: Uses of smart phones among students**

| Uses of smart phones | Frequency | Percent (%) |
|---|---|---|
| Surf online notes | 296 | 99.3 |
| Download tutorial videos | 264 | 88.6 |
| Watch online tutorial | 276 | 92.6 |
| Share materials on WhatsApp with fellow students | 256 | 85.9 |
| Share materials on WhatsApp with Lecturers | 8 | 2.7 |
| Call colleagues via Facebook and WhatsApp | 180 | 60.4 |
| Call Lecturers via Facebook and WhatsApp | 7 | 2.3 |
| Accessing MUSARIS | 298 | 100 |

## 4. CONCLUSION AND RECOMMENDATIONS

### 4.1 Conclusion

The circumstantial evidence shows that students of MoCU own and use smart phones. To find out these, this study investigated the smart phones' ownership and their uses at MoCU. Since MoCU has an enrolment of about 3670 students and interviewing each student is difficult and time consuming, the researcher took sample of 348 students to represent others. The representative students were studied and findings showed that 85.6% of all students at MoCU own smart phones. The study also revealed that, there are crucial uses of these smart phones among students towards accessing online learning materials. Some of the revealed uses of these smart phones were surfing online to access related notes, downloading tutorial videos, watching tutorial videos online, sharing learning materials on WhatsApp and accessing examinations' results and course work results on MUSARIS to mention just a few. Generally, the study found out that students who own smart phones are in a good position of having good performance due to a wide range of accessing learning materials compared to those who own feature phones.

### 4.2 Recommendations

The contribution of Smart phones in accessing learning materials among university students cannot be underrated in this digital era. The study has shown the gap in accessing online materials between owners of smart and feature phones. It is obvious that students who own smart phones can Google and do many assignments at home or hostel than those who own feature phones. For the owners of feature phones, to access online materials, they will be forced to access computers which are connected to the internet or to use someone's smart phones. In regard to these, the study recommends the following:

- Each university should encourage their students to have smart phones ;
- Each university should have enough internet access points for students to connect their smart phones online;
- Universities should acknowledge all Mobile Network Companies which provide special bundles for university students. This will encourage those companies to continue providing offers to university students. This will enable students to continue connecting their mobile phones of low price.

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