

# Chapter 17

## Utilization of Smartphones for Retrieving Research Information Resources in Libraries by Undergraduates

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### ABSTRACT

*This chapter examined the utilization of smart phones for retrieving research information resources in libraries by undergraduates. The study covers awareness, utilization, benefits, effects, and constraints that affect smart phones for retrieving research information resources by undergraduates. These concepts generally implied that awareness facilitates interest for use. It was concluded that smartphones were used by undergraduate students to retrieve research information resources, and this had positive impact on research out of students will produce positive impact on academic performance of students. It was recommended among others that efforts should be made by the university to inculcate mobile teaching and learning curriculum in to the school syllabuses at the various levels, and library staff, lecturers, and university staff generally should be sensitized and trained in the use of mobile devices for teaching and learning.*

### INTRODUCTION

Smartphone is one the most popular communication devices in the world. It is a mobile phone running on a complete operating system in a manner similar to a traditional computer, which offer advanced computing abilities and connectivity options. These features enable new kinds of mobile services that in turn shape the usage habits of library users (Alfawareh & Jusoh, 2014). University library users are among the highest contributors to the increasing number of smartphone sales. The factor that most influ-

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ences the increase in smartphone usage is the functionality that helps users in their daily life especially business people and university library users (Jacob and Isaac 2008).

According to Wayne, Gregory & Joseph (2009) research is when information is gathered to answer a question that solves a problem. Creswell (2008) states that research is a process of steps used to collect and analyze information to increase the understanding of a topic or issue. It consists of three steps: pose a question, collect data to answer the question, and present an answer to the question. Thus, research is not just gathering of information or rearranging of paragraphs from an encyclopedia or web pages but asking real questions and finding solutions to them. In tertiary education, it is not only postgraduate students or the lecturers that carry out research. Undergraduates also engage in academic research (Kanelechi, Nwangwa, Ebun, and Omotere, 2014). Hence, undergraduate research is an inquiry or investigation conducted by an undergraduate that makes an original, intellectual, or creative contribution to the discipline (Wenzel, 2000). This definition makes room for creativity in undergraduate research. Creativity is the ability to transcend mainstream ideas, bringing about originality. It has been identified as the first necessary skill in research writing. Creativity is an essential trait that undergraduate researchers should seek to develop and utilize within their research experience in the library using available information resources (Adrienne, et al, 2013).

Saron (2005) affirms that undergraduate research are form of assessment designed by lecturers to test student skills in locating and organizing materials, comprehending a topic and/or applying a concept to a specific context (Sharon, 2005). This definition recognizes the art of critical ethical judgment in undergraduate research. The above descriptions of undergraduate research writing agree that First Degree research projects are designed with the intent of creating new knowledge. Undergraduate research writing empowers students to create knowledge as well as communicate their findings. The students' benefit from the research experience of the supervisors who builds confidence, offers encouragement, and provides guidance and assistance for the students' future education and career development (CPT, 2000).

## **HISTORICAL PERSPECTIVE OF SMARTPHONES**

Historically, the first smartphones were released in the year 2000. It was manufactured by Ericsson and the model was called R380. This was the first time when this type of gadgets merged cell phone with computer functionality and was called a "smartphone". The popularity and range of smartphones has exploded in the last few years. Apple first introduced smartphones in mass consumer markets. The difference between today's smartphone and early smartphone is that early smartphones were predominantly meant for corporate users and used as enterprise devices and also those phones were too expensive for purely meant for enterprises. This era began with the advent of the very first smartphone Simon from IBM in 1993. Blackberry is considered as the revolutionary device, it introduced many features including email, internet, fax, web browsing and camera. This first phase of smartphone was based on targeting enterprises. The second phase of smartphone started with the advent of iPhone which was the major breakthrough smartphone market in 2007. In 2007, Google unveiled its Android operating system with the intention to approach the consumer smartphone market. In early 2013, smartphones overtook mobile phones by claiming a greater share of cellular device sales. This indicates a worldwide shift towards more accessible computing power held in the hands of individuals (Svensson, 2013).

Consequently, smartphones have replaced the use of desktop or mobile computers. Activities which can be performed on normal computers such as sharing information, sending and receiving emails,

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