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**AN ASSESSMENT INTO THE IMPACT OF USING ON-LINE SOCIAL NETWORKING IN  
ENHANCING LEARNING AT UNIVERSITY OF MALAWI – KAMUZU COLLEGE OF NURSING**

**BY**

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**ABSTRACT**

Quality Management is a critical success factor for organizations to grow their business. Though for a long time, quality management has always been attributed to industries that produce physical products which normally undergo quality inspection at the end of the line, there has been a shift in the trend in recent times where quality management strategies are being applied in service delivery industries as well. One of the service delivery industries is the education sector and especially higher learning institutions like UNIMA – KCN in particular. In the TQM model of quality management, one of its strategies namely Deming Theory says that; to implement quality management in service delivery there is a need to look at how the processes and systems of an organization work, understanding the changes taking place and its causal factors and understanding the human nature and how they are influenced (Knowles, 2011). At KCN one of the key processes for the success of the service delivery is the teaching and learning process which for a long time has used the traditional classroom style of delivery. However, there is a new trend of technology that has come into play in recent years and it is required that institution of higher learning should adopt these technology applications to enhance its processes of service delivery in order to improve quality.

This study utilized a case study research strategy under qualitative research method to assess the impact of using online social networking in enhancing learning and teaching at KCN as part of quality management. Data was collected from students and lecturers using a questionnaire which assessed the current dominant learning and teaching styles at KCN, the perception of students and lecturers on use of social networks, challenges facing the adoption of social networks for learning and the proposed strategies that can assist in adopting the use of social networks for learning. The collected data was analyzed using qualitative analysis method with Survey Monkey tool and the results clearly show that social networks have a positive impact on learning and teaching process. The results further confirm that KCN is ready to adopt the use of social networks for learning as it possesses the required teaching and learning styles and it has positive perception towards social networks.

The study recommends that a further research be conducted to ascertain the suggested social sites and the strategy of implementing the use of social networks for learning. This could be done with the use of a survey strategy and probability sampling to ensure all data is properly captured from students and lecturers.

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## **LIST OF ABBREVIATIONS**

Chanco	Chancellor College
CMS	Curriculum Management System
KCN	Kamuzu College of Nursing
ICT	Information and Communications Technology
IT	Information Technology
NCHE	National Council for Higher Education
OLE	Open Learning Environments
OER	Open Education Resources
SARIS	Student Academic Record Information System
SAVI	Somatic, Auditory, Visual, Intellectual
TQM	Total Quality Management
UNIMA	University of Malawi
UNDP	United Nations Development Program
UK	United Kingdom
USA	United States of America



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## **1. BACKGROUND AND INTRODUCTION**

### **1.1. BACKGROUND AND MOTIVATION**

Education sector is one of Malawi Governments' priorities and its focus encompasses primary, secondary and tertiary education (UNDP in Malawi, 2015). Government of Malawi has placed access to free primary education as goal number seven of its Millennium Development Goals (UNDP in Malawi, 2015). Due to the drive for free primary education, there has been an increase in pupils getting to secondary education and tertiary education levels hence putting pressure on the existing learning and teaching infrastructure to cope with the increased number of students. To substantiate this drive, the Malawi Government introduced National Council for Higher Education (NCHE) in 2010 with the aim of improving accessibility and quality of tertiary education for both public and private Universities in Malawi (NCHE, 2015). NCHE is also mandated to register private universities which are supporting Malawi Government in providing tertiary education by regulating universities, rationalize degrees provided by the universities and monitoring performance of the universities. The theme coming out of this introduction is the aim of improving the standard and quality of education in Malawi. This brings in the need for the Universities to put in place Quality Management strategies in their colleges to match up with government requirements. University of Malawi (UNIMA) is one of the universities that are affiliates to NCHE.

### **1.2. BACKGROUND OF CASE ORGANISATION – KAMUZU COLLEGE OF NURSING**

Kamuzu College of Nursing (KCN), which was established in 1979, is a constituent college of The University of Malawi (UNIMA) (Kamuzu College of Nursing, 2015). UNIMA was established in 1964 by Malawi Government with an aim of providing quality and cost-effective learning resources throughout the country. KCN which is located in Lilongwe, the Central Region of Malawi was established to provide learning to prepare nursing and midwifery personnel for the nation. The college has two campuses, one in Lilongwe and another on in Blantyre in which students rotate in terms of learning depending on the particular stage of their course. The college also offers research and outreach programs which are geared up to address the emerging 21<sup>st</sup> Century health challenges. Currently the college enrolls 1,008 students in various degree, diploma and certificate programs with an average annual intake of 250 students on first year class (Isa, 2015).

In its effort to overcome the challenge of growing demand for tertiary education, and improve accessibility to university education plus improving quality of delivering education services, UNIMA embarked on a strategy to exploit Open Education Resources (OER). OER are teaching, learning and research resources that are placed in public domains and have been granted under intellectual rights for free use by others (The Use of Open Education Resources at The University of Malawi, 2012). This strategy is basically an effort in a direction of utilizing Information Communication Technology (ICT) to achieve the goal of offering quality and cost-effective learning resources (Isaacs, 2007). As part of fulfilling this strategy the university introduced e-learning course at Chancellor College in 2011. Similar services were introduced at KCN in 2008 where OER was introduced with the aim of developing digital materials that would be used for teaching of Midwifery course using problem based methodology (The Use of Open Education Resources at the University of Malawi (UNIMA) — KamuzuCollege of Nursing , 2009). These two technologies adopted at Chanco and KCN utilizes the on-line applications where students can access academic materials like course material, assignments, lecture notes and interactive forums (UNIMA, 2012).

KCN also has other online academic tools like Student Academic Record Information System (SARIS) which is mainly used for students registration process, accessing examination results and voting for students union representatives. Secondly, they also have Curriculum Management System (CMS) which is an e-learning portal using the Moodle package where lecturers create discussion forums, test results, assignments and its used to compliment the classroom learning. The college also has an intranet page and student's social media page which is mainly used for communication amongst staff members and amongst students (Kanyoma, 2015)

However, the strategy to implement various on-line teaching methods by the university is faced with a number of challenges some of which are: minimal availability of ICT infrastructure for teaching and learning, high connectivity rates and expensive ICT equipment and support services (University Office, 2012). It is therefore a requirement to explore other solutions that can be adopted by UNIMA to support the drive for on-line teaching and learning methods so that it can enhance its service delivery to students. At KCN, the ICT infrastructure is available; however the rate of use of online tools is low due to lack of incentives on the platforms and its formal process. This creates an opportunity for using social networks to compliment the formal tools for learning which are already in place (Kanyoma, 2015).

### **1.3. SOCIAL NETWORKING AND EDUCATION**

Globally there has been a shift in education sector in terms of time factor, learning space and student community which has resulted in the development of flexible learning environments for delivery of tertiary education (Crutsinger, et al., 2005). Universities are motivated by the challenges of overcrowding and hence trying to adopt a more advanced and cost effective expansion tool for delivering teaching and learning services. There are existing technologies that provides opportunities for nontraditional students to access course materials even while they are not in lecturer rooms. As suggested by (Mupinga, et al., 2006) , that those instructors and lecturers can deliver course content using various instructional tools like media presentations, media notes and discussion forums and emails services. In this case, the use of common social networks easily accessible by students and lecturers like WhatsApp and Facebook will be ideal instructional tool for implementing this process. It further suggests that these tools have been used to complement the traditional classroom learning and also to support students that cannot afford to attend lecturers due to other commitments. Students prefer to enroll in online courses due to the flexibility it offers against the tight schedules of time management as students juggle between classes, work and social commitments. One of the common social commitments for students is to stay in touch with friends over the social networking platform where they engage in discussion forums and chats. Since students already have schedules for social commitments, this research argues that the same social network can be used as an aide to learning and teaching in addition to the traditional classroom learning and structured online courses as it has been adopted in other universities globally (Amukune, 2013).

It should be acknowledged that before adopting any tool for online teaching and learning, the universities need to understand the learning styles that are dominant in its students since it has a great impact on how students respond to the learning environments. There are various learning styles that can be studied and using the same, proper teaching styles should be adapted to suite the requirement (Felder & Silverman, 1988).

It is against this background that this research would like to assess the impact of using social networks for teaching and learning to complement the OER strategy by UNIMA. Currently, UNIMA has not fully exploited the use of social networks for learning and teaching as it can be evident that its Facebook page is only used for information dissemination (University of Malawi, 2014).

Owing to the time constraints and resources in this project, only KCN constituent college was considered as a case study to assess the impact of using social networks for teaching and learning at UNIMA.

#### **1.4. PROBLEM STATEMENT**

Social networking is one of the rapidly growing methods of communication amongst individuals and communities with more than 890 million daily users of Facebook alone (Facebook, 2015) and 400 million users of WhatsApp as of January 2015 (Statista, 2015). The users of these platforms have different preferences on how they use the social network as some use it for communicating with friends and family while others use it for corporate communications and others for education purposes.

In recent years, universities and colleges have adopted the use of social networks as tools aiding teaching and learning (Crutsinger, et al., 2005). However, in Malawi a gap exists in that UNIMA has not fully adopted the use of social network for aiding teaching and learning at its constituent colleges. The social network pages the colleges have created are used for purposes of disseminating general information to students and the general public (University of Malawi, 2014). KCN is such an example of the constituent colleges where its Facebook page is also used for information sharing only (Kamuzu College of Nursing, 2015) either with students or the general public. Though KCN has adopted the use of CMS and SARIS tools but its low participation from students is not desirable. It is against this background that this research project would like to investigate the impact of using online social network for learning and teaching at KCN. The research targeted online social networking tools for learning and teaching as they are cost effective in-terms of ICT infrastructure requirements since it can be accessed directly from personal mobile phones and personal laptops.

#### **1.5. RESEARCH AIM**

This research aims at assessing the impact of using readily accessible social networks for learning and teaching at KCN to complement the OER strategy. The research will explore the use of social media sites like Facebook, WhatsApp and YouTube.

## 1.6. RESEARCH RATIONALE

Most of the recent studies in Malawi show that social networking use has increased in social and personal, professional, health and educational environments, however in all this there is a lack of strategies presented to promote the use of these networks in educational settings (Nobles, 2011). Those who design curriculums at University of Malawi can learn more from the strategies developed by educators and curriculum designers who have used social networks in ways that improve learning and teaching in higher education.

Scholars across the globe agree that technology often creates opportunities to learning through engagement; however on the other side it also presents challenges that hinder learning (Cohen, 2009). Those in the curriculum formulation forums are usually forced into using technology for the sake of it without really looking at the factors that make learning a success. Hence it is important for those involved in this process to learn that it is only the proper use of the technology that leads to success of the students.

On the other hand the current rise of demand for tertiary education has put a strain on existing infrastructure at KCN whereby the number of students requiring enrolling for courses has increased. In an effort to combat this problem, KCN embarked on a project to rollout OER strategy, however its success has been slow due to challenges of connectivity costs and ICT infrastructure costs (Maere, 2011).

Therefore, as the use of internet diversifies globally and also in the education sector, the research that investigates the proper strategies and methods of applying social networking in education become more important especially in the case of KCN.

### **1.7. SPECIFIC OBJECTIVES**

This research project aims at fulfilling the following objectives that will help to answer the research questions:

- a) To identify the learning and teaching styles which are preferred by students and lecturers at University of Malawi-KCN
- b) To analyze the perception of lecturers and students on the impact of using social networks in knowledge sharing and learning at UNIMA-KCN
- c) To identify challenges being faced by KCN in adopting the use of social networks for learning and teaching?
- d) To identify possible learning and teaching strategies that can be implemented by KCN to introduce social networks as tools for teaching and learning?

In order to gather the appropriate information for fulfilling the research objectives, the research questions were formulated to assist in that respect and they are presented in the next section.

### **1.8. RESEARCH QUESTIONS**

The following research questions were developed to determine the impact of using social networking in enhancing learning and teaching at KCN.

Research Theory: Quality of education at KCN

- a) What are the teaching and learning styles being used by KCN between lecturers and students?
- b) What is the existing perception of students and lecturers on the impact of using social networks for teaching and learning at KCN
- c) What challenges is KCN facing for it not to adopt the use of social networking for teaching and learning in the last decade?
- d) What strategies can be implemented by KCN to introduce social networks as tool for teaching and learning?

### 1.9. SIGNIFICANCE OF THE STUDY

This study is important to the field of education in higher learning institution because it explored the factors that influence the use of social networking, analyzed the current learning and teaching styles and identified the effects of these styles on students and lecturers in enhancing learning. The study further explored the theories of learning like personality and social learning models that encourage students' collaboration, lecturers' interaction and students' participation in using the social networking which in turn impacts students' performance (Reichmann & Grasha, 1974).

The data gathered from the study assisted in documenting ways in which social networking is currently being adopted by other educational institutions for learning purposes. Through the same data the study further identified the strategies that can be used at university level in enhancing online learning which in turn should extend the current body of research. This knowledge may assist the educationists that are involved in designing curriculum for KCN to provide learners with opportunities to learn at their convenience.

### 1.10. THEORETICAL FRAMEWORK

There are two theories that form the theoretical framework of this study and these are Total Quality Management (TQM) theory with Deming's theory as the guiding principle and Learning theory of Social learning. TQM encompasses the quality theories that are customer oriented and services oriented. It focuses mainly on improving processes with an aim of achieving the improvement in quality (Dean & Bowen, 1994). The Deming theory which is the guiding theory under TQM consists of four points:

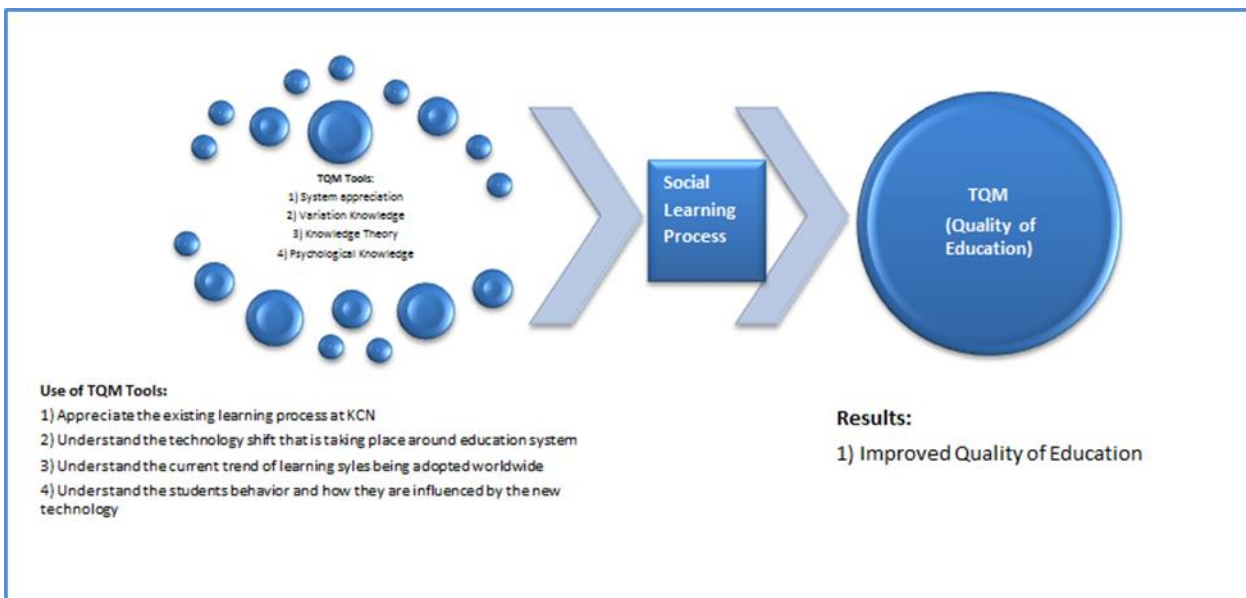
- a) **System appreciation:** Understanding how the processes and systems of an organization or institution work
- b) **Variation knowledge:** Understanding the changes taking place and its causes
- c) **Knowledge theory:** The understanding of what is available to be known.
- d) **Psychological knowledge:** Understanding the human nature and how they are influenced.

The theory of social learning is a general theory that describes the process of learning from others in similar environment. It further describes how individuals learn from others through the online devices like mobile phones, laptops and iPads (Conte & Paolucci, 2001). Learners in the social learning



experience appraise their knowledge base by adding or subtracting information shared by another person in the same learning environment. This learning theory is mostly supported by the use of social media for learning. Social media allows the users to create and share content with others and it is an interactive model where content is shared from many to many.

These two theories of TQM and Social learning were thought to be the powerful tools to understand the impact of social networks for learning in this study. Below is a diagram showing the relationship among the variables and constants in this framework.



**Figure 1.0: Theoretical Framework Governing the Research**

### 1.11. OUTLINE OF THE STUDY

In order to successfully achieve the objectives of this study, the dissertation has been structured in sections to provide a clear guide and easy access.

Section 1.0 of the research introduced the problem background and the importance of studying the problem. It further provided the historical outline of the problem, its main focus area and objectives that directed the study.

Section 2.0 presents a review of the current literature in regard to online learning using social networking. It starts with looking at the existing theories of learning styles that influences the design of teaching and learning methods to be adopted by educationist in designing the curriculum. The section also critiques the current perceptions of social networking by the society and how it is viewed in line with using it for education purposes. A further in depth analysis of the current usage of social networking in education is provided by looking at institutions that have adopted the theory already and how they adopted the strategy.

Section 3.0 describes the research methodology adopted, the data collection methods, and sampling methods and data analysis techniques that were used. The theories coming out the data collected and its analysis are presented in section 4.0. The discussion of the findings and recommendations are discussed in section 5.0 where limitations of the study and possible future research studies are discussed in detail.

## **1.12. CHAPTER SUMMARY**

This section has looked at the introduction and motivation for the study, back ground of study institution and it has outlined the objectives and research questions to the research problem. The section has presented the background of what prompted the researcher to investigate the impact of using social networking in enhancing learning at KCN. The section also introduced the guiding theories of TQM and Social Learning which forms the fundamental underlying principles of the study, This research problem is further reviewed in the next section by looking at the current literature and what other authors have found out about the adoption of social networking for learning and teaching. This literature will form the basis of a framework which this research study will be based upon.

## **2. LITERATURE REVIEW**

Before going further with the research project, it is important to conduct a literature review of the existing literature about the subject of social networking and its use in the society especially in education sector. In this case, the literature review was conducted in order to assess the current knowledge about social networking usage, what are its shortfalls and how improvements can be made on them to accomplish this project. The literature review also covered the area of learning styles since it plays a role in the process of designing teaching methods in Universities.

### **2.1. LEARNING STYLES – OVERVIEW**

Learning style is the way a student acquires, retains and retrieves information (Crutsinger, et al., 2005). Every student is exposed to various information from different sources and it is required that a student should understand the information and be able to interpret it for use and application at a later stage. The process of how the student understands the information and interprets it is what is known as learning style. According to (Keefe, 1979) Learning styles are the indicators of how students perceive, interact and respond to the learning environment. The later definition leads us into the importance of understanding the students learning styles before introducing any new teaching methods in universities because that is what creates the learning environment for the students. It is important to ensure that the teaching styles being adopted are supporting the students to learn properly and be able to interpret the information. In order to increase the performance of students in learning environment, education researchers have studied students' learning styles and adapted their teaching methods accordingly. This has proved that where teaching styles have been aligned with learning styles, students tend to understand the information better and are able to keep in mind for long period, apply it effectively, develop a more positive approach to their focus areas and achieve greater successes (Morrison, et al., 2006). However it is acknowledged that using the learning styles to draw up the teaching styles when formulating education programs is not the only effective way. A mixed approach was suggested by (Felder & Silverman, 1988) where all available students learning styles should be incorporated in the teaching styles; however students with a particular bias towards a learning style will benefit more on the materials that are presented using the teaching style that is particular to the learning style. This style of adopting a mixed approach is called segmentation. Though students will have other teaching styles that are not to their liking due to their favorite learning

styles, it will be beneficial to expose them to the teaching styles which they do not like so that they have a 360 degrees view of the topics. The same method of a mixed approach to teaching methods was used by Pennsylvania State University during the design of its online learning environments (OLE) for a Mass Communication Writing Skills Course in Journalism (Ractham & Firpo, 2011). The motivation for the adoption of the mixed method came from students who confirmed that the flexibility of time and space, additional practice services and access to various information and interaction brings satisfaction to their learning environment. On the other hand the OLE increases interaction between students and students, teacher and students and students and course material.

Before going further with the research, time will be spent to evaluate the various learning styles that are available and how they impact on the choice of teaching methods in universities and the students' performance.

## **2.2. TYPES OF LEARNING STYLES**

There are many studies that have been conducted to deduce the learning styles of students' particularly for university students. This is so because students possess different learning styles and each researcher focusses on a particular style. From the various studies of learning styles, four different learning style models, have been developed based on different psychological theories. The first groups are models based on Personality which include the following examples; (Witkin, 1954) and Myers-Briggs Type Indicator (Myers, 1978). On the second note there are models based on information processing approach and this includes examples like (Schmeck, 1983) and (Kolb, 1984). Thirdly are the models based on multidimensional factors within Human Information Processing and these include examples like (Keefe, 1989) and (Dun & Dun, 1978) and finally, the models that are based on Social Interaction like (Reichmann & Grasha, 1974). These models are studied in detail in the below paragraphs.

### **2.2.1. PERSONALITY MODELS**

The personality models of learning are the ones based on human behavior and perception of things around them. This personality is revealed through differences in how people perceive their environment. Other authors like (Funder, 1997) define personality as the individuals' characteristic patterns of thought, emotion, and behavior, together with the psychological mechanisms which could be hidden or not hidden behind those patterns. This definition was further qualified by (Feist & Feist,

2009) in which it was said that “*personality is a pattern of relatively permanent traits and unique characteristics that give both consistency and individuality to a person's behavior*”. These two definitions lead to the conclusion that personality has components that make it up. Some of the components are: consistency where individuals act in same way in different situations, psychological and physiological where biological processes and ones needs influence the behavior. Additionally, personality impacts human behavior and influences how one acts plus it can be demonstrated in more than just actions but also in thoughts, feelings and social interactions by the individuals.

There are two schools of thoughts in personality theories which are trait theories and behavioral theories. In trait theory, personality is as a result of internal characteristics that are genetically based while in behavioral theory, personality comes as a result of interaction between the individual and the environment (Funder, 1997).

Individual personalities differ due to the way they perceive and judge situations around them, this is according to (Myers, 1978). Four preferences were developed for the way individuals perceive and judge situations and can be summarized as follows:

- a) **Extraversion or Introversion:** This looks at whether individuals prefer to focus on the outer or inner world.
- b) **Sensing or Intuition:** This looks at whether the individual prefers to focus on the basic information and take it in or look at the information and make meaning out of it.
- c) **Thinking and Feeling:** In regard to decision making, it assesses whether the individual prefers to look at logic and consistency or look at people and special circumstances for coming up with a decision.
- d) **Judging and Perceiving:** This assesses if an individual prefers to get things decided for them or prefers to open to new information and options when it comes to dealing with the outside world.

These four preferences are used to develop coding that decides individual's personality type. For example one coded personality called ESFP (Extraversion + Sensing + Feeling + Perceiving) means that an individual is energetic, sociable, expressive, open, hands-on, fun-loving, practical and friendly

(The Myers and Briggs Foundation, 2015). These characteristics will be good for a student to possess if they are to adopt use of social networking for learning.

### 2.2.2. INFORMATION PROCESSING MODELS

The information processing model of learning says that the information presented to individuals from around the world moves in three stages namely: storage memory, working memory and long term memory. Sensory or storage memory is the first stage when an individual is accessing information and that's where the images and words are formed together for an individual to understand what the information being presented is like. As the information is getting processed, the individual can remember the information that was seen in the last two or three seconds and is able to recall them; this means the information is in working memory. Finally the information moves into the long term memory where an individual is able to remember the information even after the first two or three seconds (Boyd, 2015). This theory was concurred by (Schmeck, 1983) in saying that some learners tend to respond quickly as compared to others who do so more slowly and thoughtfully. The quick learners are categorized as risk-taking learners while the slow learners are interpreted as cautious learners. This understanding of learning theory is also shared by Kolb in his writings about theories of learning. The argument posed by (Kolb, 1984) says that active learning composes of four stages as follows:

- a) **Concrete experience:** This is learning with concrete experiences for example reading a book
- b) **Reflective observation:** Making observations and reflections about the experiences for example after reading a book an individual is able to recall and reflect on the material that was read
- c) **Abstract conceptualization:** The individual is able to draw abstract concepts for the observations made earlier
- d) **Active experimentation:** This involves putting the evaluation and experiences into action. This is similar to long term memory where the information can be recalled even after a long period of time.

The common theme in the two theories for information processing model is the various stages of information storage and usage that they present. Stage one is all about temporary storage while the

last stage is about long term memory which requires remembering information after a long period of time. This type of learning style is critical in social networking for learning as individuals are required to remember information for them to contribute positively to the discussions in the forums.

### **2.2.3. HUMAN INFORMATION PROCESSING MODELS**

Human information processing theory is similar to the previous information process theory as it also deals with how people take in, accumulate, retrieve, assimilate and put to use information. However, this human information processing tends to go further by looking at the pattern of how individuals prefer to deal with new and difficult ideas (Dun & Dun, 1978). For example majority of individuals enjoy approaching a difficult situation with full strength and are proud when it is accomplished. On the other hand according to (Keefe, 1979), learning styles can be presented in three dimensions of affective learning, physiological learning and cognitive learning. It is more of how individuals take in, interacts with and responds to the environment of learning.

### **2.2.4. SOCIAL INTERACTION MODELS**

The model looks at the various approaches adopted by individuals to suit their precise environment and social context. Grasha and Reichmann learning style theory is one of the models in this category. The theory revolves around the three dimensions of learner's attitude toward learning, how they view teachers and peers plus their reactions to learning environment procedures (Reichmann & Grasha, 1974). This style looks at the social and emotional perspective that deals with the groups of favored learning styles and these are classified on the social interaction scale. Three dimensions of participant/avoidant, competitive/collaborative and dependent/independent were identified in this style. The old version of social learning encouraged more of interaction of learner and teacher or learner and fellow learners in a physical classroom setup. However in recent age, the social learning style is encouraged through technology that has emerged in recent times. Since the model depends on interaction of students and others, it can be achieved through the interaction on online services like chatrooms, emails, and social network or discussion boards.

### **2.2.5. MODELS SUITABLE FOR ONLINE LEARNING**

Having looked at the various learning style models presented by different authors in the last section, it is imperative to look at literature that corresponds and supports the models that can be applied for



online learning. It should be acknowledged that people have differing preferences in learning and teaching styles hence it is important that a thorough consideration of the various styles that support online learning should be considered during design of such program of learning.

As it is known that there are varying settings of learning and teaching that are adopted in the world of learning and the two common settings are formal and informal settings. In the formal setting, the traditional method of classroom setup where there is a teacher and student on one end constituting a learning process. In the same setting, a formal curriculum is followed and different methods of teaching and learning are used. On the contrary, informal setting of learning and teaching is where people are exposed to information via advertising methods like newspaper columns, special messages from the originator to the recipient or coaching sessions on the ground during training (Draves, 2007). People learn at different speed, proficiency and methods, which bring in the challenge to ensure that the learning and teaching methods being adopted are able to cater for the various preferences of people.

Davie Meier Director of the Accelerated Learning Center introduced an approach to teaching which is known as SAVI (Somatic, Auditory, Visual and Intellectual). SAVI combines the four learning styles as indicated in its abbreviation (Meier, 2000). The four learning styles are as follows:

- a) **Somatic:** Learning by physical activity that uses the body in some way
- b) **Auditory:** Learning by talking and social interaction
- c) **Visual:** Learning by watching and listening
- d) **Intellectual:** Learning by reflecting, thinking and analyzing

It can be seen clearly from the above four styles presented by Davie Meier that the SAVI model is instrumental in developing learning and teaching methods especially the design of online programs. The Somatic learning styles suits mostly in the informal setting of teaching and learning as it also involves the use of body language in some instances to convey the message. Auditory learning style brings in a different view of learning by talking and social interaction. This style would be important in developing the teaching and learning methods using social media. The people that are more inclined to social interaction will find it easier to adapt to the use of social network for learning. The people with this learning style learn more, while working at their own speed, time and routine, using online tools. In this method, there is more interaction among teachers and students than traditional



classroom methods where a teacher makes presentations. Using the social network learners and teachers can come together from all over the world, and they are able to form a virtual community that will kindle long-term relationships (Draves, 2007). The Visual learning style which is based on the way people learn through watching and listening. This style is inclined to more of the traditional method of teaching in a classroom setup where a teacher or lecture speaks while students listen and watch. The challenge with the Visual learning style comes into play due to the school of thoughts that exist regarding teacher centered or learner centered approach to teaching. According to (Galbraith, 2004), in teacher centered approach, the lecturer's role is to design an environment that is desired for learning and any deviation from the desired is taken as unacceptable. While in learner centered approach the students take responsibility for their own learning and the lecturer is always available for help and guidance. The success of this style is hinged on trust that is required between lecturer and student. This style is suitable for implementation of online learning method in that students are independent to follow through their course work and lecturers are able to trust that the student will follow through the classroom tasks.

In the last place is the Intellectual learning style which stems from the characteristics where students learn through reflecting, thinking and analyzing. In this style students spend time to understand the information presented before them and think through it to make meaning out of it and finally apply the learnings. This style is much similar with Reflective observation style developed by Kolbs (Kolb, 1984) and the Active/Reflective style developed by Silverman (Felder & Silverman, 1988).

With all these learning styles available, the challenge still exists to incorporate them and use them for learning and teaching especially for online learning methods. For online learning to be successful, (Schank, 2002) believes that the process needs to be engaging and an orientation on the use of computer, web technology and an exact simulation of these is required to achieve desired results. Effective learning requires real experience for use of the online tools as a guide. On the other side, the ability for the students to use the technology for online teaching also poses a challenge to the adoption of the online learning methods. However, with using social media tools readily available this challenge is naturally eliminated as students are the biggest fun of using social media and it does not require heavy investment to learn how to use it. Another dimension of learning styles which students can adopt in the learning environment is introduced by (Felder & Silverman, 1988). There are five categories which are Sensory/Intuitive, Visual/Auditory, Inductive/Deductive, Active/Reflective and

Sequential/Global. In this article, more details are discussed for the first two styles as these tend to be suitable for OLE applications.

### **2.2.6. SENSING/INTUITIVE LEARNERS**

These are styles in which people tend to perceive the world. Sensing involves learning through gathering of data using the senses such as observing. Facts, data and experimentation are some of the characteristics of sensing style. Students that have preferences for this learning style like solving problems by standard methods are good at memorizing details however they are slow in acting or absorbing the data. On the other hand Intuition uses indirect perception through unconscious means like imagination, conjecture and guesses. Principles and theories are some of the characteristics of the intuition style. Students that have preferences for this learning style like innovation and do not entertain repetition of data but they like complications and are quick in grasping data however they are careless sometimes and miss out important data (Felder & Silverman, 1988).

### **2.2.7. VISUAL/AUDITORY LEARNERS**

Visual learners learn best using what they see like pictures, diagrams, flow charts, demonstrations, presentations and films, while auditory learners learn best from what they hear and even better from what they learn and say. They prefer to explain things to others and they get involved in discussions (Felder & Silverman, 1988).

The gap between learning and teaching styles emanates from the dominant learning style of visual which is present in most of the college students and older people while the dominant teaching style is auditory. In most education institutions teaching is presented via verbal lecturing with visual presentation of auditory information. The study by Socony-Vacuum Oil Company shows that students tend to retain 10 percent of what they read, 26 percent of what they hear, 30 percent of what they see, 50 percent of what they see and hear, 70 percent of what they say and 90 percent of what they say as they practice something (Stice, 1987) . This means that the students require a blend of the both visual and auditory teaching styles for them to succeed. And of most important is the blend of saying as they practice which can be achieved using OLE like discussion forums, where students share their ideas with friends online and give each other feedback. During the discussion forums, the student says the ideas in the mind and writes them down which can be compared with saying while practicing.

### **2.3. SUMMARY ON LEARNING STYLES**

This literature review on the varying learning styles that are possessed by students has an impact on the adoption of using social networking for learning in universities. It is evident that students that fall in the category of social interaction model and personality models are more likely to adopt the use of social networking for learning. These students have a high bias on the need for interaction which is the key advantage that social networking provides. It is critical that the type of social network site to be adopted should be aligned to the learning styles dominant in the students to ensure success of the learning process.

The next section reviews the social networking and social network sites in detail and how they have been used for education purposes.

### **2.4. SOCIAL NETWORKING - OVERVIEW**

#### **2.4.1. WHAT IS SOCIAL NETWORKING**

Social networking has been in existence for a long period of time though it is being thought that it is a recent trend which has emerged and taken people by surprise. The only difference is that in the early days, social media was more restricted to people who had the access to the infrastructure of communicating for example radio stations, television, publishing house and business organizations. Just as (Taprial & Kanwar, 2012) argued that social media encompasses all forms of services that facilitate the creation, sharing and exchange of user generated information hence it is evident that social media was in existence long ago. In the early days, this group that had access to the social media tools was only disbursing information to the people and hence it was more of a one way communication without feedback. For example media houses will advertise on television or web pages but there was no room for customers to give direct feedback (Taprial & Kanwar, 2012). Though people would argue that social media has brought in more bad than good to the society, as (Chaputula, 2012) indicated that "Social media is a necessary evil", it is not entirely true because the social media has been in existence for a long time and it's just that it was not interactive. With the coming in of easily accessible internet, it has made it easier for individuals to interact on an instant basis. The only critical thing in the use of social media is the social media management process which is required at all level before one can engage in choosing the type of social media to be using. It boils down to how one would like to make a benefit out the social media.

This brings us down to the point where social media should be defined so that there is understanding of what it is exactly. Various authors have written about social media and different arguments have been made on what social media is all about. (Taprial & Kanwar, 2012) Defined social media as all forms of web based applications which allow for creation and exchange of user generated content and allow interaction between the users. The key aspects coming out of it are the web based applications and interaction between users. It can also be defined as a natural environment in which people interact and engage in conversation about various topics. It is an open invitation to congregate and interact with millions of people across the world. (Jason, 2010). (Mayfield, 2008) Gives yet another good view at social media by indicating that it is a group of new kinds of media which share the following characteristics; participation, openness, conversation, community and connectedness. The key points coming out of this definition are that social media encourages contribution and feedback from individuals who are involved; it enables formation of communities of people with similar interests like students at the same university college plus it encourages two way communications between the parties. Yet another author says “Social media refers to the means of interactions among people in which they create, share or exchange information and ideas in virtual communities and networks” (Tufts University, 2013).

Other authors like (Boyd & Ellison, 2008) defined social networking services as web based services that allow individuals to carry out the following

- a) Construct a public profile within a guarded system
- b) Add a list of other users with whom they share common interests
- c) View and browse through their connection list

The social networking services have various tools that can define the above list of functionalities that an individual uses. The tools have been defined by several authors to be in six categories, namely: social networks, bookmarking sites, wikis, media sharing, microblogging and forums (Leonardi & Treem, 2012). These categories identify the various applications that are used and mostly define how the media can be used.

(Oluwalanu, et al., 2014) defines social networking as social instrument of communication where users search for information and interact. The interaction in this case is a two way communication

where instant feedback can be given unlike the traditional media of newspapers, television and magazine where feedback is not instant. Social media enables users to send and receive instant messages through email, instant messages etc. The user can access the information wherever, whenever it is required for a continuous learning process. It provides instant feedback, easy to alter detail if an error is encountered, accessibility is massive as there are no restrictions, does not require special skills to operate.

From all the definitions shared, there are two theories that are clearly coming out and that is social media is interactive in which two way communication is facilitated and social media encourages formation of communities of people with similar interests. These two theories are instrumental in this study as it contributes to the overall justification of adopting use of social networking for learning.

## **2.4.2. SOCIAL NETWORKING SITES**

Social Networking as already defined in previous chapters, it is about people communicating with friends and sharing of content like picture and videos and where feedback can be given instantly. One of the requirements in social networking is that people are required to create a profile where they are able to communicate with friends and this profile is what enables people to join communities of friends (Boyd & Ellison, 2008). To facilitate this process of creating profiles and sharing of content, there are a number of social network sites that can be used. Some of the common social network sites are: Facebook, LinkedIn, Twitter and Google+. The use of these sites is dependent on the aim of use by the individual and also each has got its own advantages and disadvantages. The four types of social network sites will be discussed in detail in the below sub-chapters.

### **2.4.2.1. FACEBOOK**

Facebook is primarily made up of status updates inform of texts, pictures and videos where others are able to like and comment about the updates. Facebook is mainly used by people to communicate and share updates with family and friends. Though many people think that Facebook is a personal social networking medium, it can also be used for businesses, marketing and learning. In recent times, the use of Facebook for business and other applications has been increasing rapidly and most University have started adopting its use for information sharing (Kabre & Brown, 2011). History

indicates that Facebook was created by a student of Harvard University and it was initially used to help students interact and know each other better (Facebook, 2015). However, it did not take time for it to become a public tool that is being used worldwide (Masuku & Moyo, 2014). This tool allows users to personalize their profiles, and communication is free without regulations. Since this tool enables the creation of content that can be shared with fellow students in a closed user group, it can form part of the tools for learning. Students can still access and keep in touch while out of campus during holiday breaks as they usually access the site for personal interaction and they will be easily motivated to participate in the discussions (Hughes, et al., 2009).

#### **2.4.2.2. LINKEDIN**

LinkedIn is a professional social network site where people present their professional image in a more formal manner than in the other social networks. Though in recent times, LinkedIn has allowed users to post pictures and videos, but its information is shared more based on texts and the information shared is more serious (Thomas, 2013). LinkedIn gives an opportunity to create a personal resume and up load it on-line for viewing by those that are connected to the individual. Individuals use LinkedIn for finding jobs, generating more business, connecting with other professionals and it has a section for University students where they can also connect. This tool also requires the individual to create a profile which should contain all personal details. Social communities can also be created in LinkedIn just as it is in Facebook. LinkedIn being a more of professional site where people share professional profiles, it may not be ideal for learning. There are less interactive activities on LinkedIn which makes it even not suitable for the learning process.

#### **2.4.2.3. TWITTER**

Twitter is a quick way of communicating with a large number of people. It can be used to communicate with friends, businesses, and can be used for marketing as well as information sharing. This tool also requires an individual to create a profile and it also enables others to follow an individual's tweets (Thomas, 2013). It can have the capability of sharing pictures and videos as well. The tool has vast usage some of which are: communicating with celebrities, getting customer information, keeping up with the news and communicating with people of similar interests.

Twitter is another interactive site where people do create harsh tags and other people can follow and comment on the content. This is one of the important advantages of this tool for adoption in learning.

#### 2.4.2.4. GOOGLE +

This site can be defined as the Facebook or LinkedIn of Google since it has similar facilities where individuals can create profiles and share content with friends (Thomas, 2013). An individual is automatically created as Google+ users the moment one creates and Gmail account. Google+ is mainly used for creating a personal brand through the profile, sharing of updates with friends and family, to join communities of people with common interests and to follow businesses and individuals of interest.

Since social network sites that have just been presented are part of the bigger group of social media, below detail looks at the types of social media in brief:

- a) **Social network site:** These are network sites that allow people to build personal profiles and be able to communicate with friends plus share content like pictures and videos. The famous Facebook is part of this category plus others like Myspace and Bebo. These are tools which are commonly used by individuals since they provide best user experience of interaction. An empirical study into the use of Facebook reveals that there are 400million active users and 200million user's login on daily basis. This clearly shows how vast the scope of this research is about (Bodna & A, 2011). In Malawi, the research study shows that 203,240 people use Facebook representing 1.2percent penetration which is low in the region (Chaputula, 2012).
- b) **Bookmarking sites:** These are services that allow the user to save and search the commonly used links so that they are easily accessible. Other researchers call these as content communities (Haelein & Kaplan, 2009). The most common ones are Delicious, Stumble upon and Flickr. Content communities have a wide range of media types including text books, videos, presentations and many more. Unlike, social networks, content communities do not require the user to create a profile or they may create a profile but with very basic information (Millen & Feinberg, 2006).
- c) **Wikis:** This website database allows individuals to add content and edit content on the documents and these documents are communal documents. The most common known is Wikipedia. It displays the content contributions from the individuals and show list of the edits that have taken place in the document (Kianto & Kosonen, 2009) .



- d) **Media Sharing:** This service allows the uploading of videos and pictures and mostly contains additional features to add a profile and personal information (Thomas, 2013). The common services used are YouTube, Vimeo and Flickr. Other paying services are available as well where music, videos and pictures can be downloaded at a fee for example, iTunes (Mayfield 2008). In Malawi, individuals usually use YouTube for video downloads for entertainment as well education.
- e) **Microblogging:** In this service users are able to blog in bite-sizes where small amounts of content are distributed on-line (Mayfield, 2008). Twitter is the biggest in this service. The profiles are guided by the search engines and it keeps the catalogue of entries (Richter & Riemer, 2010). This service mainly focuses on short updates which are pushed to those who have subscribed.
- f) **Forums:** This service allows users to hold conversation online by posting and the discussions usually centers on a common topic. It can allow the blogger to be identified through their profile (Dugan, et al., 2010).

## 2.5. SOCIAL NETWORKING FOR EDUCATION

Using social networks by Universities is an interesting topic as it sparks different reactions from different angles of the society and the academic circles. There are beneficial factors to its usage if proper design and styles of implementing are put in place. Its benefits draw more from the interactive condition it brings between the student peers and with their lecturers as well (Amukune, 2013). The ability to share information and getting feedback instantly, collaborating with fellow learners plus the ability to socialize while sharing educational information is another plus to the social networks in academics (Hamid, et al., 2009). Other authors argued that the use of social networks in education lacked the humanitarian side of its implementation and the spirit of teaching is not so present that it is easy to derail the students from the core learning (Chaputula, 2012). However this has been overcome in recent years through the introduction of collaborative learning process that the internet has brought. In this scenario, students have been made to participate in the discussions, make decisions and share with colleagues (Ractham & Firpo, 2011). The social networks technology has further enabled students to create a personalized user profile where they are able to write down comprehensive details of themselves especially of what they like, aspire to do and some personal



details. With this, the social network encourages open discussions between students that are within same campus or even at long distance campuses as long as they have similar interests.

Another challenge that was raised by a different author in regard to use of social networks in education is the proprietary rights to materials published online (Cohen, 2009). This applies especially in open source platforms where different individuals contribute to build up a topic or a write material. For example the *wiki services* where people from different areas of the world are able to contribute to an article based on their information and sources. This does not only have a challenge of proprietary rights but also brings the challenge of authenticity of the used information. However, in an academic setup, a selected user group can be used in which information can be shared amongst students and collaboratively assist each other in understanding the information. This type of collaborative learning encourages the spirit of learning how to present information, editing and creating information for use of others (Kennedy, et al., 2008).

Other authors have advocated that social networks contribute negatively to student's performance especially for those that become addicted to the internet. The addicted students more often prefer to use the internet over their academic work. (Chaputula, 2012), added that social network is a necessary evil that has eroded the moral standard of the society and also negatively impacting students' performance as they spend time working on non-educational materials while on the internet.

However, the benefits of social network in education that other authors have elaborated and found seem to outweigh its negative effects. It was indicated by (Chretien, et al., 2009) that social networks increases students engagement as they learn better in a group of peers who share common interests. It further creates an atmosphere that is better for learning as students can choose their convenient time to work on the education material on the network as well as accessing the information at any time it is required. Universities like City University of New York created a closed user group on the social network which the current students, graduates and staff communicate and share information (CUNY, 2015).

## **2.6. SOCIAL NETWORKING AND EDUCATION IN MALAWI**

Universities in Malawi are driving the use of ICT for learning in order to increase the base of reach for students as well as providing flexibility to learning. This initiative is evident in that university colleges have embarked on using ICT in libraries by introducing electronic books and journals plus further introducing on-line learning courses. For example Chancellor College provides on-line learning in collaboration with Amity University (Chancellor College, 2013), while Polytechnic on the other side provides e-learning courses in various courses for Doctorate and Masters degrees (The Malawi Polytechnic, 2015) and finally Kamuzu College of Nursing also provides e-learning in form of Curriculum Management Systems where students and lecturers are able to view course information, time tables, campus news and engage with peers in discussions (Kamuzu College of Nursing, 2015). However due to lack of thorough research on use of ICT, adoption of such technology has been slow in Malawi. In fact (Gombachika & Gift, 2013) states that another important factor that is slowing down the adoption of new technology for learning and teaching is the Technology Readiness and Technology Acceptance by the users. In this research, they confirm that 33percent of the gap to adopt new technology is attributed to technical readiness factor. Hence the balance 67percent needs to be explored further. These authors suggested the need for Universities to use flexible and more secure ICT applications in order to overcome the student's inhibition to adoption of new technology for learning. In this case there is a need to explore the use of Social Networking as a tool since it is easy to use and easily accessible by students and lecturers.

## **2.7. IDENTIFICATION OF GAPS IN EXISTING LITERATURE**

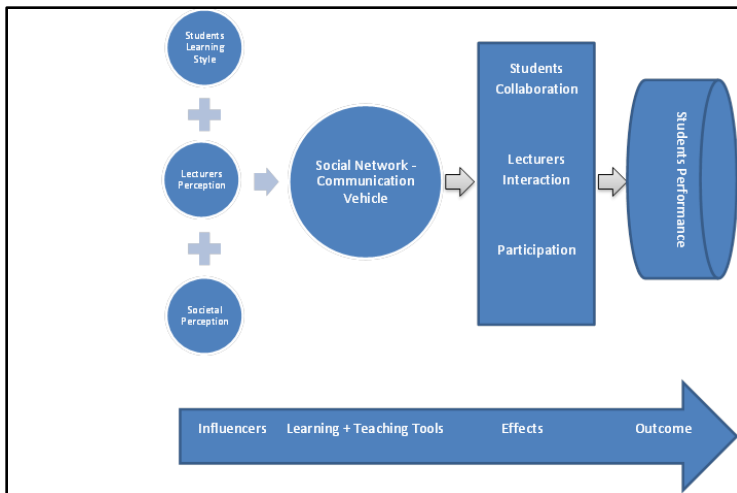
University of Malawi has put in efforts to introduce online learning courses in all its constituent colleges and has further introduced online learning tools like personalized student email addresses, student academic records information system, online library systems and curriculum management systems (UNIMA, 2012). All these tools require use College Information Technology (IT) infrastructure that has been solely setup to support them. Access to these systems is purely based on access facilities granted by the IT administrators. The existing literature presented in section 2.5 suggests use of ICT resources for learning but does not include use of any social networking tools to accomplish that.

On the other side, there is a growing trend globally of institutions using social network for learning and teaching as presented by (Ractham & Firpo, 2011), (Chretien, et al., 2009), (Hamid, et al., 2009) and (Kennedy, et al., 2008). These studies have been conducted outside Malawi and such study has not been done for UNIMA and especially KCN. Most of the studies have been done for African countries like Kenya (Amukune, 2013), Zambia (Mwiinga, 2014), South Africa (Ivala & Gochago, 2012) and developed countries like USA and UK.

Basis the above, there is a gap existing in regard to the study of using online social networks for learning and teaching in Malawi and especially KCN. This research will contribute to the existing study of online courses and will also introduce the advantageous aspect of social networks in the learning and teaching process.

## **2.8. SUMMARY AND CONCEPTUAL FRAMEWORK**

The purpose of this study as per the brief introduction is suggested by the frameworks for the impact of using social networks amongst students for enhancing learning and teaching at KCN. However, this literature review finds that the use of social networks in academics is related to students' academic performance. In this scenario the social networks is the central variable in the equation with interaction with peers, interaction with lecturers, lecturers attitude, society attitude and the students learning styles as influencers on the variable. At the end of the day the students' performance in class is influenced by all the above factors which are exerting its forces on the social network which is the tool for teaching and learning. Refer to figure 2.0 below for the conceptual framework diagram.



**Figure 2.0: Conceptual Framework**

Online educationalists suggest that collaborative learning is derived from student consciousness from the collaboration with peers, continuous interaction with tutors, engagement with fellow students, and easiness of using the system which comes from the use of media and ultimately this leads to enhanced students' academic performance (Creighton, et al., 2013). Quality of interaction within the classroom for both students and lecturers is increased with the use of social media. One of the critical parts in the training process is the aspect of interaction which every educationalist tries to fulfill in the formulation of a curriculum. This interaction encourages students to have fun while playing the class active collaborative learning and also to create a sustained behavior participation in mastering activities that encourage engagement. The existence of these components is instrumental in improving collaborative learning and students' academic performance (Chretien, et al., 2009).

## 2.9. CHAPTER SUMMARY

The literature review has presented the existing information prepared by different authors across the planet. In the first place it has introduced the various aspects of learning styles and their influence on choice and design of online teaching and learning tools. This part is critical and necessary since the "Theory of Learning" is the backbone on which this research is built upon. In the same chapter, social networking was introduced and defined, its various usable tools were presented and the perceptions of people across the education sector as well as the society were also studied. This research will further use the existing research designs and methods and much detail will be discussed in the next chapter.

### **3. RESEARCH DESIGN AND METHODOLOGY**

Methodology refers to the theory of how research should be carried out as defined by (Saunders, et al., 2007). In simple terms, methodology is the study of methods, where methods are often been referred to as techniques (Rossman & Rallis, 1998). It is further defined as a practical division of philosophy that deals with methods, systems and rules for carrying out an inquiry. Simply put, methodology answers the question of "how can we go about finding out things?" (Guba & Lincoln, 1989). This chapter therefore highlights the research design which covers the Research Philosophy, Research Approach and Research Strategy, issues of Time Horizon, Data Collection and Research Methods. The chapter explores the available research design strategies and further unveils the chosen strategies for the study and its justification.

The overall design of the study follows the Onion Research Process as presented by (Saunders, et al., 2007), refer to Figure 3.0 below.

#### **3.1. RESEARCH PHILOSOPHY AND RESEARCH APPROACH**

Research philosophy is the term that talks about the development of knowledge and the existence of that knowledge. The development of knowledge in a particular field of study is the very essence of why the research is being conducted and that is why the research philosophy will always contain the assumptions taken on how the researcher views the world (Saunders, et al., 2007).

There are two main research philosophies presented by (Cresswell, 2007) and these are Positivism and Interpretivism which mostly falls into Quantitative and Qualitative methods of research respectively.

##### **3.1.1. POSITIVISM**

The main assumption in Positivism stance is that reality stands out independent of the variables under study and the opinion of the one conducting the study and reality always remains valid despite the human awareness and acknowledgement. The approach looks for causal relationship of social phenomena and it places little regard on the subjective state of the individual concerned in the research (Saunders, et al., 2007). In this research philosophy (Gill & Johnson, 2010) posit that the research objects are not affected by the research activities and neither do they have an impact into the research process.

### **3.1.2. INTERPRETIVISM**

The Interpretivism philosophy is driven by an assumption that reality is subjective and is differing based on the participants' point of view. It is drawn from the fact that human behavior stems out from the individuals own frame of reference. The most important point is that the researcher has an influence on the research process as the level of knowledge, experience, access to the social world and personal factors play a role in the research process (Collis & Hussey, 2003). Due to the influence of the participants and the researcher into the research process, (Collis & Hussey, 2003) suggests that the approach is generally a qualitative method of research since it focuses mainly on meaning rather than the measurement of phenomena.

### **3.1.3. RESEARCH APPROACH**

Literature identifies two main research approaches namely Deductive and Inductive approaches as presented by (Saunders, et al., 2007) in the Research Onion frame.

Deductive approach is mainly involved with the testing of a proposed theory through deployment of various research strategies while Inductive approach refers to the study in which a theory is developed as a result of studying the empirical data (Collis & Hussey, 2003).

### **3.1.4. CHOICE OF RESEARCH PHILOSOPHY AND APPROACH**

The research project of assessing the impact of social media in teaching and learning at University of Malawi – KCN was framed by the research philosophy and approach of Inductive – Interpretive paradigm (Crotty, 1998). To understand the research paradigm better, (Burrell & Morgan, 1979) says it is a way of examining a social phenomenon. As discussed in previous section 3.1.2 and as (Burrell & Morgan, 1979) further indicates that the interpretive paradigm is concerned with understanding the world as it is in its natural setting and to understand the subjects of nature of the social world with a subjective view point. It seeks explanation within the realm of individual consciousness and subjectivity, within the frame of reference of the participant as opposed to the observer of action.

The researcher approached this research project under the influence of Epistemology – Interpretivism (Crotty, 1998). An epistemology is a way of understanding and explaining how we know what we know. It is concerned with what constitutes acceptable knowledge in a field. Interpretivism approach as earlier mentioned is concerned with the feelings of the researched objects. This approach takes

the notion that generalization cannot be made for phenomenon because the world is too complex. It further encourages the researcher to understand the differences between humans in our role as social actors.

An interpretivist researcher as defined by (Fisher, 2010) is someone who would also be interested in the hints and process by which one ascertains what the 'reality' of this situation was hence the Ontology - Interpretivism. Interpretivist researchers are interested in the details of a situation and they believe that generalization cannot be done on how people will react to the situation but they rather study how people will make sense of it. Generally Interpretivism is concerned with studying how people give accounts of situations and the process of how they make sense of the world. In order to assess the impact of social media in learning and teaching at KCN, the researcher was interested in getting the reaction of students and lecturers to the new concept of social network. These reactions are mostly influenced by the exposure of an individual to various situations for example background, the style of how they were brought up and age.

Interpretivism paradigm as indicated in previous section 3.2.1 is a research viewpoint which is normally seen as an approach to qualitative research (Mertens, 1998) and mostly related to Social Constructivism. This research viewpoint was developed by the works of (Fisher, 2010) and from works such as the Social Construction of Reality (Berger & Luckmann, 1967) and Naturalistic Inquiry (Lincoln & Guba, 1985). In recent years this work has also been summarized by the famous research writers such as (Schwandt, 2007), (Crotty, 1998), (Neuman, 2000) and (Lincoln & Guba, 2000) just to mention a few.

All the above writers try to summarize that Social constructivists hold assumptions that people seek understanding of the world in which they live and work. People cultivate subjective meanings of their experiences and these meanings are directed toward certain objects or things (Neuman, 2000). These meanings are diverse and numerous, which mostly leads the researcher to look for the convolution of views rather than narrowing meanings into a small number of classifications or ideas. The objective of the research is to rely as much as possible on the participants' views of the situation being studied. The questions become broad and general so that the participants can construct the meaning of a situation, normally forged in discussions or interactions with other persons. Open-ended questions are more preferred in this approach, as the researcher listens cautiously to what people

say or do in their natural setting (Crotty, 1998). In the case of this research project of social network for enhancing education at KCN, students need to be studied in their university campus setting and in their busy setting of classes and library. Most of the times, these subjective meanings are conveyed socially and historically. They are not simply engraved on individuals but are formed through interaction with others that's why they are called social constructivism and also through historical and cultural norms that operate in individuals' lives. Therefore, constructivist researchers often talk about the practices of interaction among individuals (Schwandt, 2007). These researchers also pay attention on the particular environments, in which people live and work, for them to appreciate the historical and cultural settings of the participants. Researchers are aware of the fact that their own experiences shape their interpretation, and they place themselves in the research to own up how their interpretation flows from their personal, cultural, and historical experiences hence the Axiology – Interpretivism approach. The researcher's task is to interpret the meanings others have about the world around them. Contrary to postpositivism which starts with a theory constructivist inquirers inductively develop a pattern of meaning from what participants say.

### **3.2. RESEARCH METHODS**

Literature on research gives out two methods available for research which are Qualitative and Quantitative methods. In simple terms, Qualitative method is concerned with collection of unquantified data where meaning of the data is induced by the researcher to bring out a theory from the data. On the other hand, Quantitative method is concerned with collection of numerical data which can be quantified and test a theory which is deduced from the data (Saunders, et al., 2007).

#### **3.2.1. CHOICE OF RESEARCH METHOD**

In the first place, the literature by (Crotty, 1998) presents several assumptions which are characteristics of Interpretivism philosophy which is the philosophy of this study as indicated in section 3.1.4 and this philosophy is mostly biased towards qualitative method of research. Some of these assumptions are:

- 1) *Meanings are constructed by human beings as they engage with the world they are interpreting. Qualitative researchers tend to use open-ended questions so that the participants can share their views.*



2) *Humans engage with their world and make sense of it based on their historical and social perspectives—we are all born into a world of meaning bestowed upon us by our culture. Thus, qualitative researchers seek to understand the context or setting of the participants through visiting this context and gathering information personally. They also interpret what they find, an interpretation shaped by the researcher's own experiences and background.*

3) *The basic generation of meaning is always social, arising in and out of interaction with a human community. The process of qualitative research is largely inductive, with the inquirer generating meaning from the data collected in the field.*

From the above research assumptions of (Crotty, 1998), it can be confirmed that this research took a qualitative method unlike the quantitative method. Qualitative research can further be defined as a method of exploring and understanding the sense individuals and groups attribute to a social situation. The process of research involves data collection in the participants natural setting, analyzing data from an individual viewpoint to general viewpoint and the researcher is tasked with interpreting the meaning of the data that has been gathered. This form of inquiry supports the inductive research style in which there is an emphasis on individual meaning of a situation and respects the importance of rendering the complexity of a situation (Cresswell, 2007). This research method is suitably placed for use in this research project because it helps to study a group of students in which the impact of social media for enhancing education needs to be explored. Using the qualitative method, the silent voice of students and lecturers can be heard so that it can shape the process of designing the learning and teaching methods at KCN (Cresswell, 2007). In qualitative research individuals are empowered to share their stories and let their voice be heard in their daily setting. It should be acknowledged that individuals viewpoint of a situation cannot be separated from the setting in which it is established as it has a bearing on how the viewpoint is established.

As earlier indicated in section 3.1.3, contrary to the qualitative research method is the quantitative method which is based on testing an existing theory by examining the relationship among variables. Those who engage in quantitative research have assumptions of a theory which they test and deduce meaning from it but it is carried out in a controlled environment so that biases and alternative explanations are not taken. In quantitative research the results can be replicated and generalized to the population.

With qualitative research method comes along the strategies that support the research process hence the next section looks at the existing research strategies and the chosen strategy plus its justification.

### 3.3. RESEARCH STRATEGY

There are many strategies of conducting research as revealed by literature and the common ones presented by (Gill & Johnson, 2010), (Saunders, et al., 2007), (Strauss & Corbin, 1990), (Seeing, 1999) and (Stake, 1995) are Experiments, Action research, Surveys, Case Studies and Ethnographic Studies. These strategies are discussed briefly in below section and a choice of strategy presented:

- a) **Experiment:** These are conducted in a controlled environment and follow a systematic way of research process. The conclusions are drawn based on causal relationships between the identified variables. These experiments are mostly structured in the process which they follow hence they have an advantage of high validity levels.
- b) **Action Research:** The key aspect in this strategy is that the researcher is always part of the research objects and it takes its assumption that the social world is constantly changing and research objects are affected by it. This strategy is mostly used where there is change to be managed and the researchers are encouraged to work in close collaboration with the practitioners.
- c) **Surveys:** This strategy is mainly concerned with structured collection of data from a considerable population. The population is identified based on their relevance to the information to be collected and can also be referred to as targeted population (Bryman & Bell, 2007).
- d) **Ethnography:** This is a strategy that focuses on conducting the research with people and the researchers are fully involved in data gathering and progress of the research. The strategy entails the researcher sometimes to live with the subjects and gather data through experience and observation. The disadvantage of this strategy is the time factor required which is mostly longer and hence not suitable for academic purposes (Strauss & Corbin, 1998).
- e) **Case Study:** This strategy involves the empirical investigation of the phenomena within its natural setting with an aim of understanding the influencers of decisions. The case study possesses an exploratory nature in it which can be used to identify key issues that require further investigations (Bryman & Bell, 2007). The disadvantage of the case study as

highlighted by most authors is that the results cannot be generalized and the only case where generalization can happen depends on the extent of the similarity of the subjects or the cases being studied (Bryman & Bell, 2007), (Saunders, et al., 2007) and (Gill & Johnson, 2010).

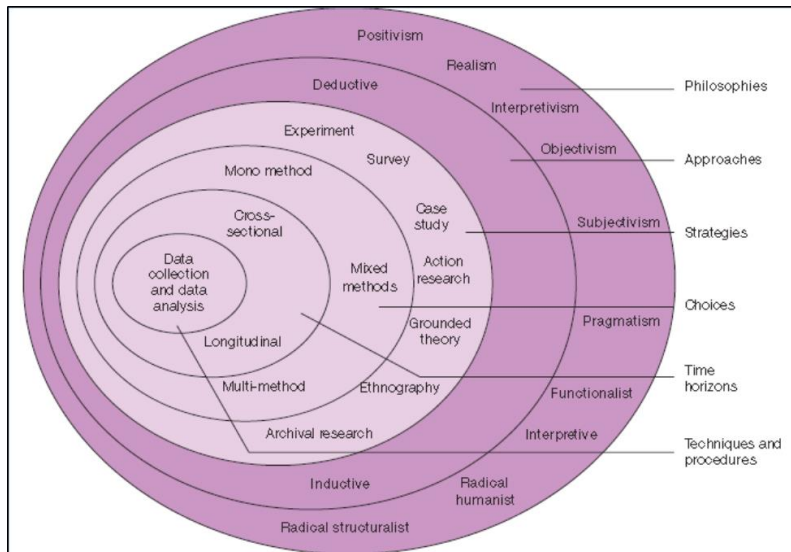
### **3.3.1. CHOICE OF STRATEGY**

The concept of research strategy has become clearer in recent times though the writings of famous authors like (Strauss & Corbin, 1990), (Strauss & Corbin, 1998), (Stake, 1995) and (Seeing, 1999). Each of these writers had a strong advocate of a particular strategy for example grounded theory by (Strauss & Corbin, 1990) and Case study by (Stake, 1995). In the case of this project, the Case Study strategy was adopted because the researcher intends to explore in depth the process of learning and teaching at KCN and assess the value addition of using social media to enhance that process. Case studies are mostly bound by time and its activities, hence it was suitable for this project as the time to conduct it is limited. Unlike ethnography which requires the researcher to observe and interact with the participants and mostly takes long time, case study only require to interact with the participants to ask for their view of a situation (Neuman, 2000). Case studies takes a focus on a particular phenomenon with an intention of providing an in-depth account of events, procedures and experiences taking place in that particular instance. In recent days, the case study is used mostly in small scale research and hence in this academic research it fits very well (Denscombe, 2010).

The case study approach requires the researcher to make a choice from among a cluster of things like a group of people, organizations or schools. The researcher picks one good example from the cluster for example in this instance, KCN amongst the five constituent colleges of the University of Malawi. The choice of the case is based on the features that particular case poses that can be used to apply to the other parties in the cluster. In the case of KCN, the college has already engaged in use of Information Technology in learning and teaching at its campus hence it better represents a place to study the use of social media. The other criterion for choosing a particular case is the matter of convenience. Owing to that fact that the researcher in this case is geographically located in Lilongwe where KCN is also located, it makes it easier for the research to be conducted as data can be collected easily and in turn minimizing cost and time spent of the project (Denscombe, 2010).

Though (Yin, 1994) in his writing indicates that the case study approach has not been universally accepted by researchers citing that it is unreliable, lacks objectivity and not legitimate. One major problem that has been pointed out is that it is often difficult to generalize from a specific case. However (Yin, 1994) and (Gummesson, 2000) argues that most scientific inquiries have to be replicated by multiple examples of the experiment and even doctors in medicine build their skills from knowledge acquired in multiple cases hence case studies can be used to generalize the phenomenon as well drawing from the case study in question.

As indicated in previous section, other strategies exists under qualitative methods such as grounded theory, survey, ethnography and experiment which could have been adopted but this project preferred the use of case study based on the reasons above. The Onion in (Saunders, et al., 2007) plainly indicates the strategies available and its biases towards the various methods, refer to Figure 3.0 below



**Figure 3.0 The Research Onion adopted from (Saunders, et al., 2007)**

### **3.4. TIME HORIZON**

Based on the Research Onion in Figure 3.0 above, there are two categories of time horizons presented. The first is Cross-sectional which is mostly concerned with the research that tries to take answers based on a “snapshot” taken at a particular time or moment. The second one is the Longitudinal which is concerned with taking responses over a series of “snapshots” (Denscombe, 2010). This research adopted the Cross-sectional approach since the responses were collected at a particular time and once in that period which means the factors affecting the data were constant at that particular moment. If the same data were to be collected after some time, it will surely be different from the present data because of the varying factors that may have changed by that time.

### **3.5. SAMPLING**

The research project required that information is obtained from a large group of individuals especially students and lecturers at KCN for it to have a better information, however it should be acknowledged that it is impossible to get feedback from all the students and lecturers and let alone examine the information. A large volume of information obtained from a large population may also prove difficult to analyze and hence leading into unreliable results as challenges like fatigue come into place to cause errors in collecting data (Sekaran, 2003). If research would be carried to obtain data from the entire population, it would be costly and time consuming in reference to the form of academic research being undertaken. In view of this, sampling method was applied so that a part of the group was engaged to get the data and the data collected would be a representative of the rest. Since the data to be collected from the selected part of the group would be the same that can be obtained from the rest of the group then conclusions can be drawn relating to the whole group.

Though in some cases it is difficult to find a representative sample especially when characteristics of the group are different for example studying different ethnic groups, it may prove to be difficult to get the best representative sample hence one may end up studying each ethnic group on its own (Sekaran, 2003).

When conducting a research, the question that mainly arises is how representative is the selected sample of the whole population. In other words it requires to look at how similar are the characteristics of the small group to the whole group. In research the term population is a collective term which is used to describe the total quantity of objects of the type which are focus of the study

(Walliman, 2011). In this research project the selected group of students and lecturers at KCN is of interest to the study and this was the sampling frame. From this sampling frame, a sample will be chosen using the sampling methods.

In research field it is generally accepted that conclusions that are drawn from a large sample are more convincing than those from a small sample. However there has to be a balance in terms of practicality of obtaining such a large sample in consideration of resources like cost, time and amount of work required. As indicated by (Walliman, 2011) that if the population is homogenous, meaning that all cases are similar, and the study is not detailed in nature then a small sample of the population will be a fairly representative of the group. The case of students and lecturers at KCN shows that the population is homogenous as they contain similar characteristics for example; the study course is the same which is Bachelor of Science in Nursing and Midwifery and the classroom teaching style being used is similar to all the students which is dominantly authority and facilitator style (Gill, 2013). This justifies that a sample of the population can be used to determine the responses of the rest of the population.

### **3.5.1. CHOICE OF SAMPLING METHOD**

There are two sampling methods available in the research field namely probability sampling and non-probability sampling. In probability sampling, the elements in the population have some known chance or probability of being selected as sample subjects as defined by (Sekaran, 2003). This sampling method is used when the sample representation is of importance in generalization for the population. On the other side, in non-probability sampling, the elements do not have a known or predetermined chance of being selected as subjects. It is mostly used when time, cost and scope of obtaining data is critical other than the issue of generalizability (Sekaran, 2003). Considering the low extent of generalizability desired in this project and further looking at the factors of time and cost, non-probability sampling was adopted.

Non-probability sampling was adopted in this research project because of the following advantages over probability sampling:

- a) The method requires the researcher to use subjective judgement in coming up with the sample and the subjective judgement is based on a theoretical stance and experience of the researcher.

- b) Generalization requirement is low in this method and the researcher is more interested in the details of the sample being studied than the objectivity in the selected sample.
- c) The procedures to select a sample are quick, easier and cheaper and suitable for student dissertation looking at the available time resources and financial resources available to support the research.

### **3.5.2. NON-PROBABILITY SAMPLING**

In non-probability sampling the elements in the population do not have any probabilities of being chosen as the sample subjects (Saunders, et al., 2007). Due to this, the results of the study cannot be used to generalize about the population. However the method can be used as a starting point in obtaining views from the population so that a proper probability sampling can be done at a later stage. In non-probability sampling the issue of generalizability is low but the desire to get quick information is required. This category is further categorized into purposive and convenience sampling. In purposive sampling the sample group is target based where a group of people that can provide the specific information is approached. Taking an example; in assessing the impact of social media on personal ego in girl students at University of Malawi. In this instance it means girls only will be targeted to provide the needed data. On the other side, convenience sampling refers to obtaining information from the population that is readily available to provide it (Sekaran, 2003). For instance, other researchers may sit in the market place and randomly pick everyone available to give feedback on a particular product.

In this research project, considering that it is not easy to mobilize the students and lecturers at KCN due to their commitments, it was decided to use convenience sampling so that any student or lecturer available will be engaged to provide answers to the research. The only disadvantage with this approach is that it renders generalizability of the results very low, however since the project intends to obtain the basic information about the impact of social media in enhancing learning it will suffice the purpose. The convenience sampling was used by the following researchers as well in the field of social media (Kim & Ko, 2012), (Webster, 1995), (Kirschner & Karpinski, n.d.) and (Pasek, et al., 2009). In summary the Convenience Sampling method was selected based on the following advantages:



- a) It is governed by very few rules on how to select the sample population
- b) Cost and time required to carry out the sampling is low as compared to probability sampling
- c) Does not require more formal details that can help to complete the sampling process. For example in the case of KCN, it was not easy for the registrar to provide details of all the students so that a sample could be selected from there. However, the opportunity was given to collect data from any student or lecturer available hence the convenience sampling was a handy tool in this research (Field, 2005).

### **3.5.3. SAMPLE SIZE FOR THE STUDY**

Sample size of the study refers to the number of respondents which are included to participate in the study. In this research project, it refers to the students and lecturers who have characteristics similar to their counterparts and can represent the other members in this study. As previously indicated in section 3.5.2, convenience sampling was used in this research project to gather information from the sample population.

KCN currently has a population of 1008 students for all intakes from First Year to Fourth Year and a population of 72 lecturers in various faculties (Isa, 2015). This research targeted a student sample population of 10percent which is 100 students and 30percent of lecturers which is 22. This sample population was a good representation of the overall population of study based on reasons in section 3.5.1. This sample was chosen under the discretion of the researcher as it was based on convenience sampling.

### **3.6. DATA COLLECTION METHODS**

In research projects the method of collecting information that will be used to answer the research questions is known as data collection. According to (Kumar, 2008), there are two types of data that are collected from participants namely; Primary and Secondary Data. Further to the types of data collected from participants, there are various tools that can be used for data collection some of which are observation, interviews and questionnaires.

#### **3.6.1. PRIMARY AND SECONDARY DATA**

Primary data is the information collected directly from participants and for the first time. This data is mainly collected for the specific purposes of their study to answer the research questions. In principle,



the questions the researchers ask are tailored to produce the data that will help them with their study. Researchers use various tools such as surveys, interviews, questionnaires and observation to collect the data themselves. Usually the primary data is collected from the site or natural setting where the participants are available (Sekaran, 2003).

On the other hand, secondary data are data that already exist in different forms and the researcher does not need to collect it. Some secondary sources of data can be data from previous research, library records, web site information, online data, and publications from institutions and companies, published and unpublished information and from the internet. Other sources could be from documents like company policies, established processes and procedures, company profile details and published internet details.

Advantages and disadvantages exist in collecting and using both primary and secondary data methods. The advantages in collecting primary data is that it collects data that is specific to the problem or the research questions since the questions are tailor made to answer the questions. There is a lot more focus by the research on primary issues to be used to answer the research questions. Additionally the researcher has control over the quality of the data to collect as questions can be directed to collect such required information (Fisher, 2010). On the down side, the primary data method is time consuming and expensive to carry out as it requires the researcher to spend time in formulating the questions and collecting data. The researcher requires time to filter out unwanted information and come out with information relevant to the study. On the other side, secondary data is quick and less time consuming to obtain and it is easier to analyze especially on data that has been collected over a long period of time. It is easy for a researcher to identify trends and draw conclusions from secondary data. However, the secondary data has a risk of being inaccurate and outdated considering the trend on how technology and the world is advancing. The researcher may also run into a problem of going through a lot of unwanted data before the right information is discovered (Lancaster, 2005).

This research adopted the use of mixed method of data collection that is both primary and secondary data. Primary data was collected mainly to ascertain the current practices and the view of the participants on the use of social media for education purposes. While secondary data was used to

study the trends on how social media has evolved and how it is being used in other sectors of life as well as higher education.

According to (Saunders, et al., 2007) there are a number of data collection methods that can be used in a research such as observation, interviews, and questionnaires. Questionnaires and interviews were used in this research project. The questionnaires are further categorized into two main types namely; interviewer administered and self-administered. Self-administered questionnaires are filled up by the respondents on their own time without the supervision of the researcher. On the other side, interviewer administered questionnaires are administered on a one on one basis between the researcher and the respondent. The respondent provides feedback immediately to the researcher based on the asked questions. This research collected data using self-administered questionnaires for students and interviewer-administered for lecturers as justified in the table 1.0 below.

### 3.6.2. QUESTIONNAIRES

Questionnaires are used because it helps in gathering data in a standardized and structured method. They further remove interferences that may exist in face to face interviews hence objectivity is high in this method (Gummesson, 2000). Questionnaires are good when information is to be gathered from a large group of people. The questionnaires was designed in such a way that they contained both open ended questions and closed questions to ensure that results obtained are reliable and valid. Some of the questions were correlated to each other just to check the reliability of responses (Saunders, et al., 2007). The questionnaire was piloted with classmates before being administered to ensure that the results obtained are reliable and valid. The questionnaires were used on students on a convenience sampling method as it was not easy to gather the students at same place for responses.

Participant	Data Collection Method	Justification for Method	Population Size	Sample Size	Sample Criteria	Data Collection Dates
Students	Self-administered Questionnaire	1) Requiring time 2) Requiring in-depth details	1008	100	Involved in learning and teaching process	01-21 Apr 2015
Lecturers	Interviewer-administered Questionnaire	1) Requiring in-depth details 2) Consideration of time availability	72	22	Involved in learning and teaching process	01-21 Apr 2015

## **Table 1.0: Summary of Data Collection Tools**

### **3.7. RELIABILITY AND VALIDITY**

Reliability and Validity are commonly used in quantitative research, but in recent time it is reconsidered in the qualitative research methods. There is need to redefine reliability and validity for their use in qualitative research because they are rooted in positivist perspective. In order to understand the meaning of reliability and validity in qualitative research, it is imperative to understand the different view given by various qualitative researchers. Several researchers summarized the issue of Reliability and validity in Qualitative research to be tested using the following concepts of (Denscombe, 2010) and (Guba & Lincoln, 1989):

- a) **Credibility:** Looks at is the study indeed measuring what it is intended for?
- b) **Transferability:** Can the results be used for generalization?
- c) **Dependability:** Would similar results be obtained if the research is conducted in same environment?
- d) **Conformability:** Are the results the real experience of the participants and not the requirements of the researcher?

In this research the issues of reliability and validity were addressed though the iterative process of questioning, pilot testing of the data collection tool and qualitative data analysis methods.

### **3.8. ETHICAL CONSIDERATIONS**

The researcher filled up the Ethical Approval form for Bolton University and submitted to the ethics board. In addition to this, an introduction letter was sort from the University of Bolton which was used to show all respondents the authenticity of the research and in turn the Registrar of KCN prepared an introduction letter to all students and lecturers to confirm that approval has been granted for the researcher to administer data collection tools, refer Appendix 1 for the copies of the letters. The data obtained from the respondents was used purely for academic purposes and was treated as confidential for the safety of the respondents.

### **3.9. CHAPTER SUMMARY**

This chapter has explained how the research was conducted and has highlighted the chosen research design method plus its justification for being chosen. The next chapter will present the data

findings and analysis that will lead to further recommendations and conclusions in the upcoming chapters.

#### 4. DATA ANALYSIS AND DISCUSSION OF RESULTS

This study used Survey Monkey Software tool to conduct the coding, narrating, interpret and present the collected data. This tool was able to produce analyzed data in form of tables and graphs. This tool was chosen considering the time factor the project was granted which required more time to learn the statistical tools. The researcher acknowledges that there a number of qualitative data analysis methods that are usually used some of which are; Ethnographic, Narrative, Phenomenological and Constant comparative (Merriam, 1998). This study selected to use Narrative data analysis using the structured data from the Survey Monkey software tool.

The chapter discussion has been structured to cover chronologically the demographic characteristics of the respondents, the results of each research objective and the findings from the research questions.

##### 4.1. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The questionnaire tool that was used for data collection from both students and lecturers was divided into six sections with the first section dealing with characteristics of the respondents. The first was to identify the gender orientation, then age group and year of study in college. These were captured in both questionnaires administered to students and the lecturers. The Table 2.0 below presents the outcome of the respondents.

Students			Lecturers		
Gender	Response Percent	Response Count	Gender	Response Percent	Response Count
Female	38.5%	20	Female	64.7%	11
Male	61.5%	32	Male	35.3%	6
<i>Total</i>		<b>52</b>	<i>Total</i>		<b>17</b>

**Table 2.0: Gender Orientation of Respondents (Students and Lecturers)**

The respondents in above table show a distribution dominated by male students sitting at 61.5percent against female students sitting at 38.5percent, while on the lecturer side the dominance is on female lecturers at 64.7percent and male lecturers at 35.3percent, however since there is a representation from both gender orientation, the results are satisfactory for analysis. The Table 3.0 below presents the age group composition for both students and lecturers.

Students			Lecturers		
Age Group	Response Percent	Response Count	Age Group	Response Percent	Response Count
10-20 Yrs	15.4%	8	21-30yrs	17.6%	3
21-30 Yrs	67.3%	35	31-40yrs	29.4%	5
31-40 Yrs	17.3%	9	41-50yrs	35.3%	6
41-50 Yrs	0.0%	0	Over 50yrs	17.6%	3
Above 51	0.0%	0	<i>Total</i>		17
<i>Total</i>		52			

**Table 3.0: Age Group of Respondents (Students and Lecturers)**

The highest students' respondents came from the 21–30yrs age group with 67.3percent followed by 17.3percent of 31-40yrs and the least being the 10-20yrs with 15.4percent. This distribution of age group is the true reflection of the buildup of students in colleges which mostly falls in the bracket of 21-30yrs. Since in Malawi an average student starts primary education at the age of 6yrs and hence it takes 12yrs to reach college level hence being found in this bracket. While on the lecturers' side, the dominating age group is 41-50yrs with 35.3percent, seconded by 31-40yrs with 29.4percent while the balance groups take a share of 17.6percent each.

The next Table 4.0 presents the year in college for the students which is also a critical factor in looking at the respondents' answer to the questions. Students in upper level classes tend to be more mature in responding than those in lower classes. The 3<sup>rd</sup> year students is the highest group of respondents with 51.9percent, followed by 4<sup>th</sup> year at 25.0percent, then 1<sup>st</sup> year at 13.5percent and finally the least 9.6percent of 2<sup>nd</sup> year. This reflects the true picture of the makeup of students since during the time of data collection only 1<sup>st</sup> year and 3<sup>rd</sup> year students were on campus learning while the rest of the classes were in hospitals for practical lessons. This means the few numbers found in 2<sup>nd</sup> year and 4<sup>th</sup> year were students assigned to hospitals around the campus hence residing on campus. In correlating the age group and the year of study, it also shows that the age group is true

since highest respondents are in 3<sup>rd</sup> and 4<sup>th</sup> year which means that students indeed are sitting in the bracket of 21-30yrs based on 6yrs of age to start primary education.

Students		
Year of Study in College	Response Percent	Response Count
1st	13.5%	7
2nd	9.6%	5
3rd	51.9%	27
4th	25.0%	13
<i>Total</i>		<b>52</b>

**Table 4.0: Year of Study in College (Students)**

#### 4.2. LEARNING AND TEACHING STYLES AT KCN

The questionnaires included a section in which it aimed at identifying the learning and teaching styles being used at KCN. The theme coming out of this section is important in determining the success of adopting the strategy of using social network for learning as it plays a big role in design of course curriculum. Table 5.0 below shows the distribution of respondents in regard to the current teaching style by lecturers. It is evident from the table below that Formal Authority (One Way Presentation) teaching style dominates at KCN constituting 70.6percent of responses followed by Facilitating and Corporative with 52.9percent and 51.0percent respectively. This notion of Formal Authority teaching style is substantiated by the results of lecturers' response with 47.1percent of Formal Authority. Table 6.0 below further shows that lecturers mostly use Teacher to Student communication. In this table, 91.8percent responses agree that lecturers use one-way communication of lecturer to student which is a characteristic of Formal Authority teaching style.

Students			Lecturers		
Teaching Styles	Response Percent	Response Count	Teaching Styles	Response Percent	Response Count
One way presentations	70.6%	36	Formal Authority	47.1%	8
Coaching	13.7%	7	Demonstrator	17.6%	3
Corporative/Group	51.0%	26	Facilitator	35.3%	6
Facilitating	52.9%	27	Delegator	0.0%	0
<i>Total</i>		<b>51</b>	<i>Total</i>		<b>17</b>

**Table 5.0: Teaching Styles at KCN**

Students		
Teaching Style (Teacher to Student)	Response Percent	Response Count
Yes	91.8%	45
No	8.2%	4
<i>Total Answered</i>		<b>49</b>
<i>Skipped</i>		<b>3</b>

**Table 6.0: Teaching Style (Communication) at KCN**

On the other hand, Table 7.0 presents those learning style preferences of students. The responses clearly indicates that 71.2percent of students are in the category of Somatic Learning, seconded by Auditory Learning with 50.0percent then Visual and Intellectual with 44.2percent and 28.8percent respectively. The students learning style preference is also critical in forming the curriculum as it needs to be taken into consideration always.

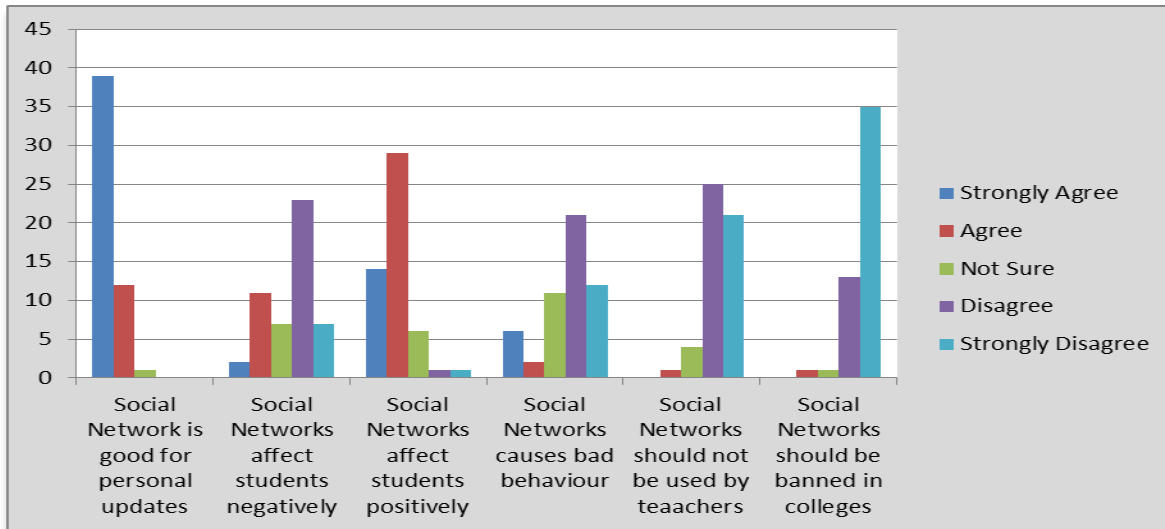
Students		
Preferred Learning Style	Response Percent	Response Count
Visual: Learning using images	44.2%	23
Auditory: Learning by talking and listening	50.0%	26
Somatic: Learning by practicing	71.2%	37
Intellectual: Learning by reflecting	28.8%	15
<i>Total</i>		<b>52</b>

**Table 7.0: Learning Style of Students**

#### **4.3. PERCEPTION ABOUT SOCIAL NETWORK AT KCN**

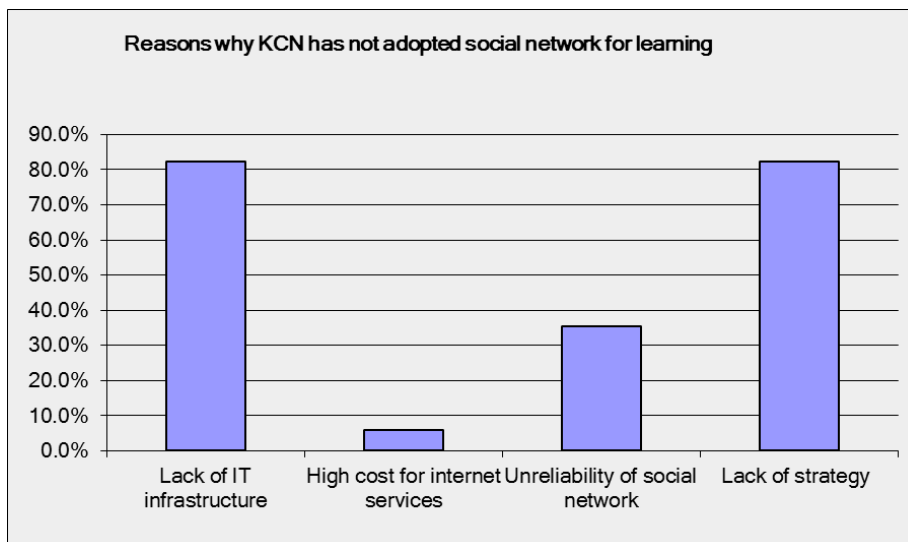
The data collection tools also contained a section to analyze the perception of social networks by both students and lecturers. The perception towards social networks is a key factor to the success of adopting use of social networks for learning and teaching purposes. The Figure 4.0 below shows the respondents perception about using social networks. The respondents were asked perception

questions and were requested to agree or disagree. There is a positive perception on social networks as per the results in the Figure 4.0 below. For instance 39 students agree that Social network is good for personal updates and 43 students agree that Social networks has positive influence on students. As regards to banning of social network in college 35 students strongly disagree with the idea.



**Figure 4.0: Perception on Social Network by Students**

#### 4.4. CHALLENGES FOR IMPLEMENTING SOCIAL NETWORK FOR LEARNING

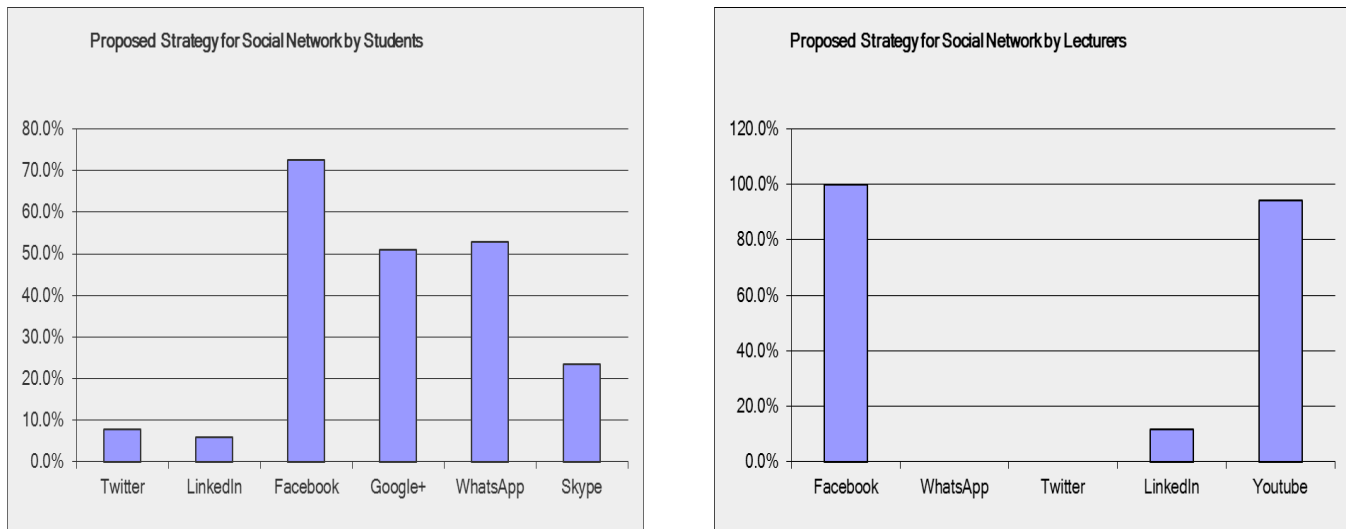


**Figure 5.0: Challenges in adopting social network for learning.**



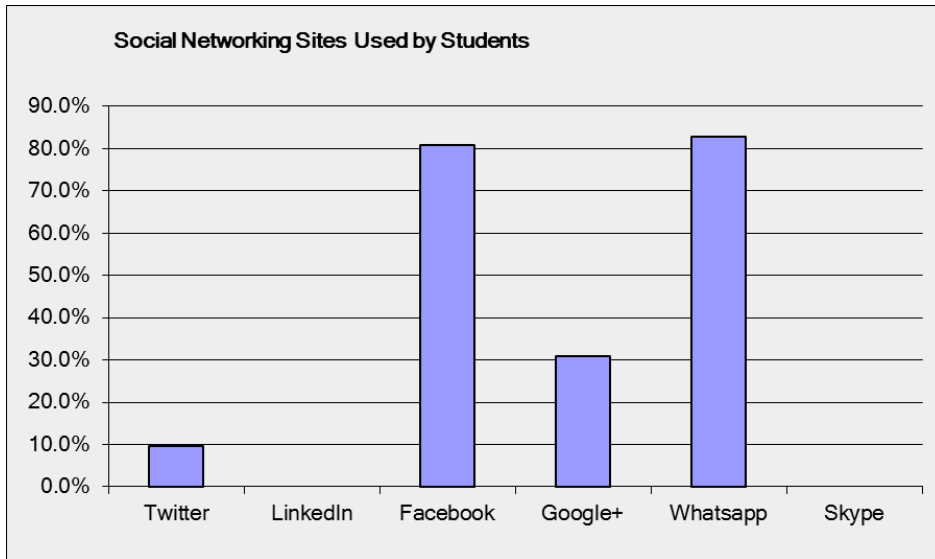
The Figure 5.0 above clearly indicates that the main challenges in implementing the strategy of using social network for learning are lack of IT infrastructure and lack of strategy with 82.4percent rating respectively. This means, people acknowledge that accessing social network is cheaper but the other factors contribute for not adopting it as a strategy for learning.

#### 4.5. STRATEGIES FOR ADOPTING SOCIAL NETWORK IN LEARNING



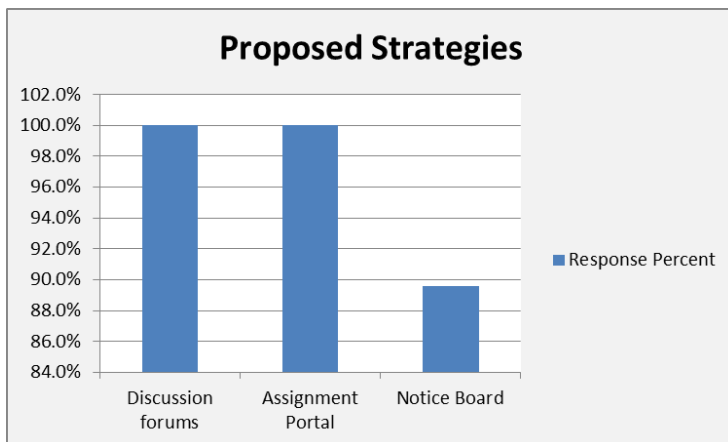
**Figure 6.0: Strategies for adopting social network for learning**

Figure 6.0 above analyzes the proposed strategy for adopting social network in learning. There is a high bias towards use of Facebook with 72.5percent score and 100percent from students and lecturers respectively followed by WhatsApp with 52.9percent and Google+ with 51.0percent. This tallies with the social media trend of the students as indicated in Figure 7.0 below where it shows that 82.7percent of students use WhatsApp and 80.8percent of students use Facebook for social networking. This shows that when considering the social network sites to be used for implementing the strategy, the most preferred and accessible sites should be considered.



**Figure 7.0: Social Networks sites used by students**

The questionnaire had a section for open ended question which was aimed at exploring the proposed strategies to be adopted for using social network in learning. The responses were categorized into three main themes as presented in below Figure 8.0.



**Figure 8.0: Proposed strategies for using social network**

The responses suggest three strategies to be implemented for using social network for learning namely: discussion forums and Assignment portal with 100percent respectively and Notice board with 89percent response rate.

#### **4.6. CHAPTER SUMMARY**

This chapter has presented the details of the results and findings from the data collected using the planned tools which was a questionnaire and data analyzed using the Survey Monkey tool. The data has been presented in line with the objectives of the study which are in four themes of learning and teaching styles, perception of social networks, challenges of adopting social network and proposed strategies for adopting social network in learning. The next chapter will discuss the recommendations and conclusions from the highlighted findings.

## 5. CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses the conclusions drawn on the study based on the data analysis in chapter 4 and the conclusions are based on the study objectives. Recommendations are made regarding the research study and possible future research to be done on the same topic and finally limitations of the research are also presented.

In chapter 1, the study introduced the following objectives which needed to be fulfilled by the study:

- a) To identify the learning and teaching styles which are preferred by students and lecturers at University of Malawi-KCN
- b) To analyze the perception of lecturers and students on the impact of using social networks in knowledge sharing and learning at UNIMA-KCN
- c) To identify challenges being faced by KCN in adopting the use of social networks for learning and teaching?
- d) To identify possible learning and teaching strategies that can be implemented by KCN to introduce social networks as tools for teaching and learning?

### 5.1. CONCLUSION 1: LEARNING AND TEACHING STYLES AT KCN

The research findings in section 4.2 above indicates that the dominant teaching style for lecturers at KCN are the Formal Authority and Facilitation which fall under the category of teacher-centered and student-centered teaching styles respectively (Dun & Dun, 1978). As discussed in previous section 2.2.5, teacher-centered teaching styles are not suitable for use in online learning since in online learning; much effort is required from the students. However, the student-centered style of Facilitation is a step ahead towards the adoption of using social network for learning and teaching. This teaching style is supported by the second dominant learning style of Auditory Style by the students which is a style suitable for adoptions of social networks for learning refer to section 2.2.5. The author (Selwyn, 2007) also established that there is a direct correlation between learning style of students and the adoption of social networks for learning. Therefore, this study concludes that during the design of the strategy to use social network for learning, students learning styles and lecturers teaching styles needs to be evaluated and be incorporated in the design.

## **5.2. CONCLUSION 2: PERCEPTION ON SOCIAL NETWORK FOR LEARNING**

This study has established that there is a positive perception on the use of social networks for learning and this is due to the fact that both students and lecturers are already using the social networks for either friends and family or professional errands; refer to results in section 4.3. Literature indicates that negative perception on the use social networks affects negatively on the adoption of social networks for learning (Creighton, et al., 2013). As for KCN both lecturers and students agree that social networks have positive influence on students hence its adoption and implementation does not foresee any resistance, refer to section 4.3. However, care has to be taken on the age group especially for the lecturers, as the responses from age group of above 50years showed a bias towards resistance of using the strategy. The age group of above 50yrs was only 17.5percent but their responses indicated that they do not use any social network sites hence this might pose a challenge.

The study recommends that prior to implementation thorough training on usage of the social network tools should be done to both students and lecturers as this could help to eliminate any negative perceptions and this was supported by (Wilke Global, 2014) in the article in which it was emphasized that having a conversation and providing enough information can combat negative perception.

## **5.3. CONCLUSION 3: CHALLENGES IN ADOPTING SOCIAL NETWORKS FOR LEARNING AT KCN**

The results for challenges in adopting the use of social networks for learning at KCN indicated two dominant challenges namely: lack of ICT infrastructure and lack of strategy, refer to Figure 5.0 above. This means that this study provides a step ahead into the implementation of social networks for learning at KCN since it also aimed at exploring the recommended strategy by students and lecturers. The strategy to be recommended by the study in the next section will resolve this challenge. In regard to lack of ICT infrastructure, it is important that KCN management incorporates the strategy into its planning cycle by ensuring that all enrolling students have a basic smartphone as a tool for learning so that access can be granted for social networks. Similar strategy was implemented by Singaporean Ministry of Education as part of preparing students for the 21<sup>st</sup> century (Norris, et al., 2011) and it proved to be a success in adopting the use of social networks for learning.

#### **5.4. CONCLUSION 4: STRATEGIES FOR ADOPTING SOCIAL NETWORKS FOR LEARNING**

The data analysis provides two forms of strategies that KCN could adopt for using social network for learning. The first is the strategy which considers the services that should be incorporated for use by students namely:

- a) Discussion forum:** This can be in a form of an application or a closed user group on the social network site where a topic is introduced by the tutor and all students are requested to participate. To make it more attractive for students, there is a need to ensure an incentive inform of marks should be allotted for the participation on this forum (Norris, et al., 2011).
- b) Assignment portal:** Students can be requested to receive and submit group or individual assignment using the social network site under a closed user group.
- c) Notice board:** This is mainly for information sharing and results sharing where students can find all the information posted on the social network site wall

The second suggested strategy is the social network site to be used. The study results recommend the use of Facebook, WhatsApp and YouTube. Since other institutions have already adopted the use of these sites for learning, KCN can institute further inquiry on the adoption methodology of these sites (Hussain, 2012).

#### **5.5. RECOMMENDATIONS**

This study has revealed that KCN is currently not using social networks to the optimum though minimum IT infrastructure is available on campus refer to data analysis results in section 4.4. Based on the findings from the data analysis, the researcher recommends the following:

- a) Further research is required to streamline on the strategy to be adopted and the social network site to be used. This will be a prerequisite for a successful implementation of the strategy. This study used non-probability sampling with convenience sampling hence its results are a general feel of the students and lecturers on ground in regard to social networks for learning but cannot be generalized for a wider use. However, a thorough investigation is required to establish the improvement areas on the strategy.

- b) KCN can build on the strength that there is already an existing positive perception on both students and lecturers as regard to using social network for learning hence the adoption faces reasonable resistance. However, the aspects of ICT infrastructure and free Wi-Fi internet should be adopted as well to encourage students to use the system from their smartphones. Similar strategy was implemented at Westwood Colleges in USA (WestWood Colleges, 2015) to encourage students enroll on the online learning tools.
- c) The college also needs to start diversifying in the use of other teaching styles apart from the common one of Formal Authority which is the traditional classroom setup. The new trend of teaching styles which are student-centered should be adopted as these styles are in tandem with the use of social media (Selwyn, 2007).

## **5.6. CHAPTER AND DISSERTATION SUMMARY**

This chapter has presented the conclusions in line with each research objective and also has presented the recommendations by the researcher. Based on these recommendations, it can be concluded that the research has achieved the aim of assessing the impact of using social networking in enhancing learning at UNIMA-KCN by answering the critical objectives of the study. The research also has added knowledge to the existing knowledge as this research was never conducted at KCN before.

The researcher also would like to highlight that the research met with limitations for it to come up with more data for review due to the following reasons:

- a) During data collection, students at KCN were out to their places of practical training and hence on campus there were only 1<sup>st</sup> and 3<sup>rd</sup> year students. This posed a challenge in that the data representation was not evenly distributed amongst the years of study. This also means that most of the lecturers were not available in office to respond to the interview questionnaire.
- b) A set of 100 questionnaires were sent out to students at KCN to respond but only 52 questionnaires were collected representing 52percent success rate. The response rate could have been improved if enough time was dedicated to the activity to ensure that interviews were conducted to make sure no data loss.

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**7. APPENDIX-1****7.1. DATA COLLECTION TOOL: QUESTIONNAIRE**

*This questionnaire is part of my dissertation work as a partial fulfillment of the award of a Masters of Science in Project Management. The research is entitled "An investigation into the impact of using online social network in enhancing learning at KCN". The information that you provide will be treated with confidentiality and not disclosed to anyone without your knowledge. Thank you so much for filling out this questionnaire.*

**SECTION A: RESPONDENT DETAILS**

**NAME:** (Optional) \_\_\_\_\_ **SEX:** \_\_\_\_\_

**AGE:** (Tick where applicable)  10-20  21-30  31-40  Over 41

**YEAR OF STUDY IN COLLEGE:**  1st  2nd  3rd  4th

**PHONE:** (Optional) \_\_\_\_\_

**Email:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**SECTION B: TEACHING AND LEARNING STYLES**

*Teaching and Learning styles being used at KCN and your preferential style*

- 1. Does learning take place in a formal class-room setting at your college campus?**
  1. Yes
  2. No
- 2. Do lecturers give out lessons as a one way communication (Teacher to Student)?**
  1. Yes
  2. No
- 3. In what format do lecturers give out learning notes and assignments? Choose two**
  1. Blackboard
  2. Handouts
  3. Online Tool
  4. Verbal and textbooks
- 4. How would you categorize the teaching method being used by your lecturers in class among the following four methods? Choose two**
  1. One way presentations
  2. Coaching
  3. Corporative/Group
  4. Facilitating

**1. To what extent do you agree with the below statements (Rate them as follows: 5-Strongly Agree, 4-Agree, 3-Not Sure, 2-Disagree, 1-Strongly Disagree) Choose on rate per statement**

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
5.1) I like learning in a classroom setup where I sit and listen to a lecturer					
5.2) I like listening and writing notes while the lecturer gives out lesson instructions					
5.3) I do not like learning in a classroom setup					
5.4) I enjoy working on group assignments					
5.5) I would like to receive course assignments via a personalized online tool					
5.6) I enjoy receiving my assignment results via notice board					
5.7) I would prefer to receive my assignment results via a personalized online tool					

**2. How would you categorize your learning style preference? Choose two**

1. Visual: Learning using images  2. Auditory: Learning by talking and listening   
 3. Somatic: Learning by practicing  4. Intellectual: Learning by reflecting

**SECTION C: USING SOCIAL NETWORK**

**3. Do you use the internet?**

1. Yes   
 2. No

**4. Choose the two social networking sites you often use on internet?**

1. Twitter  2. LinkedIn  3. Facebook   
 4. Google+  5. WhatsApp  6. Skype

**5. How often do you use the above chosen social networking sites in a day?**

1. 0 – 2Hrs  2. 3 – 5Hrs  3. 6 – 8Hrs  4. More than 8Hrs

**6. What gadget do you often use to access the internet and your chosen social networking sites?**

1. Phone  2. Desktop computer  3. Laptop

1. To what extent do you agree with the statements in below table regarding the use of your chosen social networking tools? (Rate them as follows; 5-Strongly Agree, 4-Agree, 3-Not Sure, 2-Disagree, 1-Strongly Disagree)

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
11.1) I use the social networking sites for searching education information					
11.2) I use the social networking sites for connecting with friends and family					
11.3) I like sharing my academic ideas and opinions using the social networking sites					
11.4) I have a personal account on the social network					
11.5) I have more than 50 personal friends on the social network who are also fellow students					
11.6) I think it is cheaper and convenient to use the social network					

**SECTION D: YOUR PERCEPTION ABOUT THE SOCIAL NETWORK**

2. Do you personally like using the social network sites?
  1. Yes
  2. No
3. Does your college use the social network sites for communication with students and outside world?
  1. Yes
  2. No
4. Does your college have online tools for teaching and learning?
  1. Yes
  2. No
5. If you answered "Yes" to above question, please state the name of the online tool used by your college?
 

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1. To what extent do you agree with the statements in below table regarding your perception about social network? (Rate them as follows: 5-Strongly Agree, 4-Agree, 3-Not Sure, 2-Disagree, 1-Strongly Disagree)

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
16.1) I think social network is necessary for keeping oneself updated with the world					
16.2) I think use of social networks by students affects their performance negatively					
16.3) Social networks has positive influence on students' performance					
16.4) Social networks is the cause of unruly behavior of young people					
16.5) It is not acceptable for teachers and lecturers to use social networks					
16.6) Use Social networks should be banned in colleges because of its negative effects on students					

**SECTION E: USING SOCIAL NETWORK IN ACADEMICS**

2. Do you think it is acceptable for an academic institution to use social network for learning?

1. Yes

2. No

3. Can you share three suggestions on how academic institutions should use social network?

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4. Which of the following social networking sites would you like to use in a formal learning?

1. Twitter  2. LinkedIn  3. Facebook

4. Google+  5. WhatsApp  6. Skype

1. To what extent do you agree with the statements in below table regarding the use of social network in academics? (Rate them as follows: 5-Strongly Agree, 4-Agree, 3-Not Sure, 2-Disagree, 1-Strongly Disagree)

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
20.1) Colleges should use social networks for teaching and learning					
20.2) I would comfortable discussing group assignment on social network sites with my classmates					
20.3) Kamuzu College of Nursing is mature to start using social network for delivering its academic programs					
20.4) It is expensive and inconvenient to use social network by students					
20.5) Social Network encourages collaboration among learning peers					
20.6) Social Network encourages collaboration between learners and teachers					
20.7) I would be comfortable to share my ideas with friends using social network					

**SECTION F: YOUR VIEWS ABOUT SOCIAL NETWORKS**

2. In your own words what do you think is the impact of using social networks in teaching and learning?

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3. Any comments regarding use of social network?

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Thank you so much for taking part in this survey. You **may** wish to **withdraw** from this survey before or after filling out this form by informing me on the contact details provided below. If you decide to do so before filling, please return the blank questionnaire to me. **Do not give it to anyone** if you decide not to fill it yourself. If you decide to withdraw after filling the questionnaire but before data analysis, the questionnaire will be destroyed in your presence as it will not be returned back to you. Please note that you may do this **before data analysis** of the results as it **will not be possible** after that.

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## 7.2. DATA COLLECTION TOOL: QUESTIONNAIRE



This interview is part of my dissertation work as a partial fulfillment of the award of a Masters of Science in Project Management. The research is entitled "An investigation into the impact of using online social network in enhancing learning at KCN". The information that you provide will be treated with confidentiality and not disclosed to anyone without your knowledge. Thank you so much for filling out this questionnaire.

### SECTION A: RESPONDENT DETAILS

**NAME:** (Optional) \_\_\_\_\_ **SEX:** \_\_\_\_\_

**AGE:** (tick where applicable)     21-30     31-40     41-50     Over 50

**YEARS IN SERVICE**                     1                     2                     3                     4 and Above

**PHONE:** (Optional) \_\_\_\_\_

**Email:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### SECTION B: TEACHING AND LEARNING STYLES

*Teaching and Learning styles being used at KCN and your preferential style*

#### 1. What teaching styles do you prefer to use when delivering your lessons?

1. **Formal Authority:** You expect to control the flow of information to students and expect students to sit back and listen, then ask questions after the lesson.
2. **Demonstrator:** You encourage student participation and show them how to find a solution.
3. **Facilitator:** You often place much emphasis on students to complete the learning activities.
4. **Delegator:** You often ask students to take control of the learning by allowing them to work in groups and teach each other

#### 2. Do you ever use the social network to share lecture notes or assignments with your students?

1. Yes
2. No

#### 3. If "Yes" to above question, which social network sites do you prefer to use?

1. Facebook    2. Whatsapp
3. Twitter    4. Youtube

#### 4. If "No" to Question 2; Do you ever use any social network site for your personal activities?

1. Yes
2. No

1. **Can you briefly, describe what activities do you normally use social network for?**
  1. Family and friends
  2. Personal business communications
  3. Share knowledge with the world
  4. Communicate with work mates
  
2. **Does KCN use social networks for academic purposes? Please give examples?**
  1. Online profiles for communication
  2. Visual: Learning using images
  
3. **If “No” to above question, in your opinion why do you think the college has not embraced the social network for teaching.**
  1. Lack of IT infrastructure
  2. Internet service charges at expensive
  3. It is not a good idea
  4. Social network is unreliable
  
4. **In your opinion, do you think KCN is ready to adopt the use of social network sites for learning?**
  1. Yes
  2. No
  
5. **If KCN was to adopt the use of social networks for learning, which social network site would you recommend?**
  1. Facebook
  2. Whatsapp
  3. Twitter
  4. Youtube
  
6. **What’s your opinion on use of social networks and students performance in class?**
  1. Affects positively
  2. Affects negatively
  3. It has no direct effect
  - 4.
  
7. **Any comments regarding use of social network?**  

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Thank you so much for taking part in this survey. You **may** wish to **withdraw** from this survey before or after filling out this form by informing me on the contact details provided below. If you decide to do so before filling, please return the blank questionnaire to me. **Do not give it to anyone** if you decide not to fill it yourself. If you decide to withdraw after filling the questionnaire but before data analysis, the questionnaire will be destroyed in your presence as it will not be returned back to you. Please note that you may do this **before data analysis** of the results as it **will not be possible** after that.

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### 7.3. CONSENT LETTER TO KCN

University of Bolton  
C/o Malawi Institute of Management  
P.O.Box 30801  
Lilongwe 3  
Cell: +265 999989930

15<sup>th</sup> April, 2015

The Registrar  
Kamuzu College of Nursing  
P/Bag 1  
Lilongwe

Dear Sir,

#### REQUEST FOR INFORMATION

My name is Mphatso Andrew Manda and I am studying a Master of Science Degree in Project Management with University of Bolton in collaboration with Malawi Institute of Management. In order to fulfill the requirements of the award for a Master of Science Degree in Project Management, I am conducting a research entitled “**An assessment into the impact of using online social networking in enhancing learning at University of Malawi – KCN**”. In view of this, I would like to request for your support to allow students at KCN and lecturers to spare some valuable time and respond to my questionnaire.

I will be administering the questionnaire in person plus conducting interviews for the lecturers in person.

The findings of this research will be used for academic purposes only and they will be treated with utmost confidentiality and will remain anonymous.

Thanking you for your valuable contribution in this research.

Yours faithfully



**Mphatso Andrew Manda**

### 7.4. INTRODUCTION LETTER FROM REGISTRAR OF KCN



**UNIVERSITY OF MALAWI**  
**KAMUZU COLLEGE OF NURSING**

PRINCIPAL  
A. MALATA, DipNur, MRM  
B.Sc. MN, Ph.D.

P/BAG 1, LILONGWE, MALAWI  
TELEPHONE: 265 (0) 1751 622/200  
TELEGRAMS: NURSING  
FAX: (0) 756 424  
EMAIL: [Principal@kcn.unima.mw](mailto:Principal@kcn.unima.mw)  
Website: [www.kcn.unima.mw](http://www.kcn.unima.mw)

Ref. No. KCN/AR

April 16, 2015

KCN Staff and Students

Dear Sir/ Madam

**INTRODUCTORY LETTER FOR MPHATSO ANDREW MANDA**

The bearer of this letter is Mr Manda who is a student of Malawi Institute of Management pursuing a Master of Science Degree in Project Management and is looking for data from this College.

Any assistance rendered to him will be greatly appreciated.

Yours sincerely,

Misheck Issa

Assistant Registrar-Academic

Cc: DOF

R (on file)

