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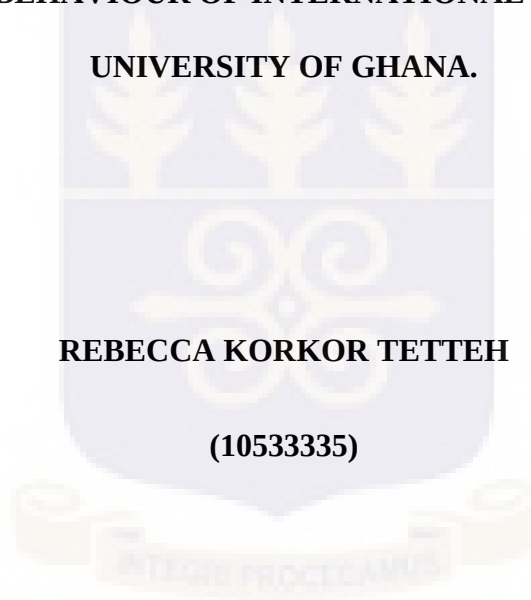
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

DEPARTMENT OF INFORMATION STUDIES

**INFORMATION BEHAVIOUR OF INTERNATIONAL STUDENTS IN THE
UNIVERSITY OF GHANA.**

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**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA,
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DECLARATION

I hereby declare with sincerity that this dissertation is the result of my own original work under the supervision of Dr. Philip Kwaku Kankam from the Department of Information Studies, University of Ghana, Legon.

This work has not been presented for another degree elsewhere except for references to other works which have been duly acknowledged.



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DEDICATION

I dedicate this work to my family whose encouragement and prayers helped me to accomplish
this work successfully.

ACKNOWLEDGEMENT

My profound gratitude to Almighty God for blessing me with the strength, knowledge and perseverance to commence and complete this work successfully.

I am very appreciative of the staff and the Dean of the International Programmes Office of University of Ghana, especially Mr. Daniel Adu Ameyaw and Ms. Patricia Asiedu Mensah for their immense support during the course of this study.

Special thanks to my supervisor, Dr. Philip Kwaku Kankam for his patience, suggestions and guidance which enabled me to complete this dissertation.

May the Almighty God bless you all.

ABSTRACT

As internationalization of higher education expands, host universities are compelled to recognize the pressing information needs of their international students who may have had differing educational backgrounds in order to provide satisfactory informational services throughout their stay in the host university. The study investigated the information seeking behaviour of international undergraduate students in the University of Ghana. The major areas that were looked into were the information needs of international undergraduate students, the channels through which they retrieved information and the challenges experienced when seeking information. The study applied a survey approach which included both quantitative and qualitative methods. The data collection tools were online questionnaire for the international undergraduate students and semi-structured interview with the Head of International Programmes Admissions Office (HIPO) at the University of Ghana. Evaluation of research methods, and consideration of ethical issues were observed to ensure validity and reliability of research findings. The quantitative data were collected through online questionnaire and were analysed using SPSS, while the qualitative data was analysed through the use of thematic content analysis. The overall response rate was 51.1% (86 out of 169 sample size). Wilson's (1981) model of information behaviour was employed as the theoretical framework for the study. The findings of the study revealed that international postgraduate students had both academic and personal information needs at the host university. The study discovered registration process as the major academic need and accommodation as the major personal information need. The study revealed different sources of information used by surveyed students to satisfy their academic and personal information needs. The library resources and services were mentioned by 100% of the participants as the main source for their academic needs. The Internet was the most used source for both academic and personal purposes. The study also revealed problems related to English language proficiency and poor internet connectivity.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Globalization has affected internationalization of higher education in the sense that higher education across borders no longer constitute the attraction of foreign students with scholarships and fellowships but highly considered as international trade (Wildavsky,2010). As such, “Internationalization is changing the world of higher education and globalization is changing the world of internationalization” (Knight, 2008 p.1). The number of students enrolled in institutions outside their countries has seen enormous change between 1990 and 2011 and has in turn “expanded the tertiary education system worldwide and the globalisation of economies and societies” (Organization for Economic Cooperation and Development, 2013 p.1).

According to Smith (2015), institutions seek to enrol international students because of the positive economic, social and cultural benefits. In line of this, Hanassab & Tidwell (2002,p.306) suggest that “educators should not sell short the intellectual and financial resources that international students represent”. Thus, implementing impressive recruiting strategies by public universities will increase enrolment of international students who are both intellectually good and self-funded (Majyambere, 2013).

Over the past two decades, enrolment of international students has been on the rise. In 2011, the largest number of international students enrolled in OECD countries such as the United States, the United Kingdom, Australia, Germany and France, came from China, India and Korea. Asian students account for 53% of all students studying abroad worldwide. This is

followed by European students accounting for 23%, African students 12% and the rest of the world account for 12% (OECD, 2013). This goes to show that “international students are now more likely to be enrolled in tertiary education than in the past, reflecting an increase in internationalisation of academic research and science”(OECD, 2013 p.2). Conversely, the share of international students in the United States dropped from 23% to 17% between 2000 and 2011 and of Germany, three percentage points over the same period due to strict immigration policies, English language requirements and higher tuition fees (OECD, 2013).

The 2019 Open Doors Report on International Educational Exchange, an information resource on international students and U.S. students studying abroad shows an 18.5% increase between the academic level 2016/17 to 2017/18 in the number of U.S students enrolled in universities and colleges in Ghana, from 1,865 to 2,210 (Open Doors, 2019). Divine, Jones, & Gorkel(2013 p.1) in their research ‘Foreign students’ experience in Ghana’ indicate that “Ghana is an emerging destination for foreign education particularly among African countries with a total of 38 different nationalities pursuing university education in Ghana”.

The UNESCO Institute for Statistics, the OECD and EUROSTAT for Statistics define international students as “those who are not residents of their country of study or those who received their prior education in another country” (OECD, 2013 p1). In other words, “those who have crossed borders for the purpose of study”. In certain jurisdictions, ‘foreign student’ data is used in place of unavailable ‘international student’ data. Foreign students are defined according to their citizenship (OECD, 2013). The term ‘international student’ will be applied throughout the study to serve the purpose for which emphasis is laid on students who have crossed borders to purposely study at the University of Ghana.

According to Liao, Finn, & Lu (2007 p.6), “international students constitute a unique multicultural group”. They seek out for reputable host universities with the aim of improving their language skills, being culturally enriched and achieving successful careers when they return to their places of origin (Davis, 2007). As such, it is important that, host universities understand the international students’ needs and information seeking behaviour at an early stage (Majyambere, 2013). Arguably, adapting to a diverse cultural environment such as Ghana and accessing information in the Ghanaian academic environment may be one of the many challenges faced by international students. It is therefore important that host universities identify the problems or challenges experienced by international students in acquiring information in order to develop appropriate information delivery systems for international students (Knight, 2008).

Information is an important element for progress in every society. Individuals seek information from different sources to undertake responsibilities and complete tasks. Contextually, students seek information to complete their academic task such as preparing their project work and tests and assignments (Abdoulaye, 2002).

Case (2002, p.258) as cited in Majyambere, (2013) asserts that, “Information needs vary per users’ demographical background and the requirement of the task they are performing”. For instance, international students come from countries with different cultural and educational backgrounds, therefore they require information which may be different from the local students (Bukhari et al., 2018). As such, the information needs of the user (international student) influence the users’ choice of information sources and systems at their current university. Therefore, to develop proper information systems and improve delivery services for students

including international students, there is the need to undertake user-centred studies to generate knowledge to effectively meet the information needs of the students.

Feather and Sturges (1997 p.300), define information need as “the expression used in a wide range of ways to refer to any context where information is sought and it represents all forms of information seeking”. Writing dissertations, thesis or review of articles are some of the required tasks performed by international students which constitute the academic needs of international students and informs their information seeking habits/patterns. Apart from these required tasks, information needs are influenced by users’ membership of social groups and their demographic backgrounds (Case, 2002). Subsequently, “Information needs may lead to information-seeking and formulation of request for information” as observed by Ingwersen and Järvelin (2005).

Garg (2016 p.161), broadly defines information seeking behaviour as “the activities performed and channels used by a person after identification of his/her information needs and the subsequent use of the obtained information”. “It is the purposive seeking for information as a consequence of a need to satisfy some goal” (Wilson, 2000 p.94). Information behaviour of international students are influenced by individual factors such as language ability and educational background, demographical factors such as gender and country of origin and other factors such as availability of resources at current universities (Poyrazli and Kavanaugh, 2006).

“The University of Ghana, the oldest and one of the largest of eight public universities in Ghana was founded in August, 1948 with the vision to become a World-Class Research-Intensive University”. Its mandate is to create an enabling environment that makes University of Ghana

relevant to national and global development through high quality teaching and learning. With a student population of over 38,000, made up of students enrolled in various programmes, there has been a growing number of international students from over 70 countries enrolled in the university's regular undergraduate and graduate programmes (Public Affairs Directorate, 2016).

1.2 Statement of the problem

As internationalization becomes important, universities are working hard to provide quality education to attract international students all over the world. To improve service delivery, it has been found necessary for host academic institutions to identify the information needs of the patrons that it serves (Safahieh, 2007). Prabha et al., (2007) indicate that the basic purpose of a user study is to generate knowledge that will be useful in the design of/ evaluation of information products and services to meet the information needs of the user in question. For example, investigating the ways individuals enunciate, seek, evaluate, select and use the required information (information-seeking behaviour).

In view of the significant rise in the number of international students at the University of Ghana, there is a need to identify their information needs and information seeking behaviour in order to provide reliable information services to meet the academic, personal and social information needs of the international student. Identified as a 'multicultural group', with differing demographic backgrounds in terms of education, language, culture and individualistic natures, international students may encounter challenges in their new academic environment in accessing information. Such barriers may include language or communication barriers which could potentially make the satisfaction of information needs difficult. It is therefore important

that emphasis is laid on identifying the information needs and information seeking behaviour of these multicultural students enrolled at the University of Ghana and to determine whether the information services that are provided by the University of Ghana through the library and the International Programmes office, meets their information needs and the considerable measures that can be put in place to improve the already existing information systems.

A review of literature shows that, a number of studies such as those of Safahieh and Singh (2006), Olurunfemi (2018) and Arokyamary and Ramasesh (2009), have investigated the information needs and seeking behaviours of international students in the academic context with undergraduate and graduate students as the primary user group being explored. Other studies have focused on international students' information behaviours in the context of everyday life; Chung and Yoon (2015) and international students' library use and perception; Abdoulaye (2002), Liu and Winn (2009) and Yi (2007). Other studies have also compared the information seeking behaviours of both domestic and international students; Song (2005) and Liao et al. (2007) while others have brought insight on the challenges international students encounter; Foley (2010).

However, few research; Parsons (2000), Majyambre (2013), Lieb (2016) have been conducted to examine the academic and personal information needs and information-seeking behaviour of international students comprehensively. A review of literature further shows that, most of the studies outlined above are studies on the information seeking behaviour of international students in developed countries, thus, are a reflection of the information seeking environment there whereas the information seeking environment in developing countries may considerably be different. Therefore, this study attempts to contribute to filling this gap by examining the

academic and personal information needs and seeking behaviours of international students in a developing country such as Ghana, with the University of Ghana as a case study.

1.3 Purpose of the study

The purpose of this study was to determine the information behaviour of international students at the University of Ghana.

1.4 Objectives of the study

The specific objectives were:

1. To determine the information needs of international students at the University of Ghana.
2. To examine how international students seek information.
3. To identify the information sources used by international students.
4. To investigate the challenges experienced by international students when seeking information.
5. To find out how the information services offered to international students can be improved.

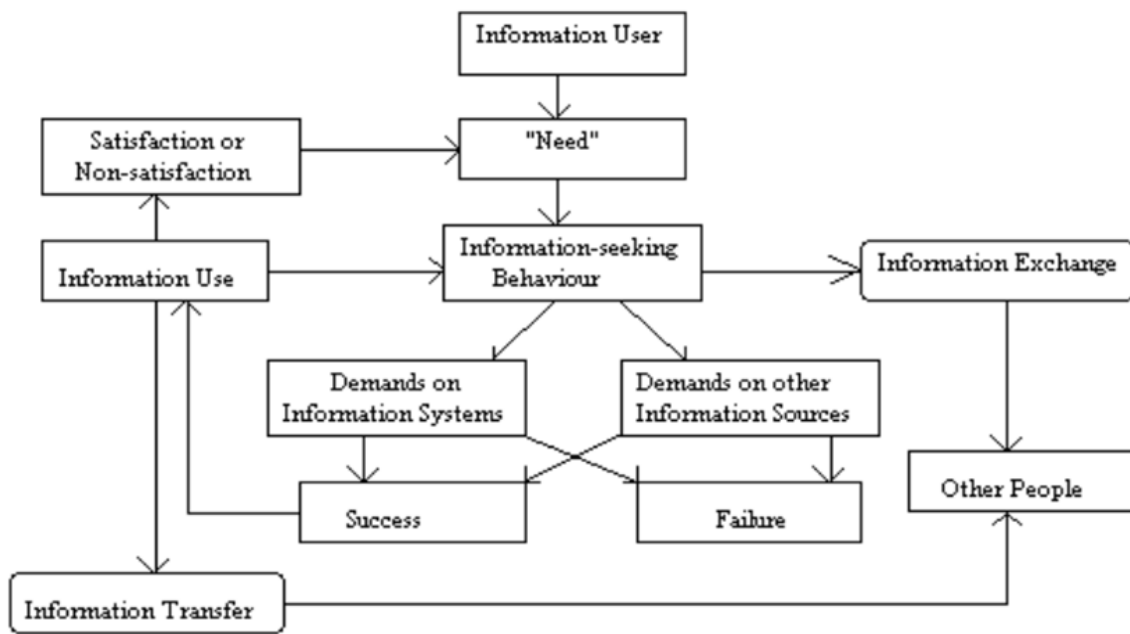
1.5 Theoretical Perspective

Information science has produced many models of information behaviour, enabling the understanding of users' interaction with their information environment. Studies conducted on

Information seeking behaviour, “stem from concerns surrounding how people use information in their work or school environment” (Garg, 2016 p.161). In order to describe information seeking activities, researchers use various models, often in the form of diagrams, in the field of Information Behaviour. Wilson (1999 p.250) describes a model as a “framework for thinking about a problem that may evolve into a statement of relationships among theoretical prepositions”. Models serve the purpose of analysing and predicting an outcome.

Several models are used for the study of user information needs. A few of these include Wilson’s model 1981, 1996, 1999 and Ellis’ model 1989 which have been extensively used by scholars such as Case (2002), Majyambere (2012), Niedzwiedza (2003), Kankam (2018) and Murray (1991) in their various studies. Wilson’s 1981 general model provides the framework for this study. Wilson’s model is derived from an analysis of human information behaviour. It is a general model that helps to explain the various approaches to information seeking behaviour with emphasis on human information needs and use rather than how an individual uses information systems (Wilson, 2005)

Wilson’s 1981 model involves three main views of information seeking and these include; “the context of the user/ seeker, the information-seeking behaviour and the information environment”. Wilson’s 1981 model is a “general model that can assist in understanding the features of information behaviour of all group of users”. Hence this model is chosen as a general framework for describing the information seeking behaviour of international students in the University of Ghana. The model identifies 12 components involved in the information seeking process.



Wilson's Information Behaviour Model (1981) (Source: Wilson, 1981)

Figure 1.1: Wilson's Information Behaviour (1981)

According to Wilson (2006), “the satisfaction of an information need is proposed to be the driving force behind the action taken by a user”, which means that any need perceived by the user prompts them to seek information. Wilson's 1981 model suggests that “information seeking behaviour results from the recognition of a need perceived by the user”. The needs may be in the form of physiological, cognitive and affective needs and these needs are influenced by personal characteristics, person's role at work or in life and the environment (political, economic, technological etc.).

In order to satisfy that need, “the user demands upon either formal systems which are customarily defined as information systems (such as libraries, on-line services or information centres) or informal information systems which may perform information functions in addition

to a primary, non-information function (such as estate agents' offices or car sales agencies) both of which are concerned with selling, but which may be used to obtain information on current prices, areas of 'suitable' housing or details of cars that hold second hand value".

The demands upon this system may result in success or failure to find relevant information. The individual makes use of information if he/she is successful in finding relevant information to fully or partially satisfy the perceived need. The search process is renewed when there is failure to satisfy the need (Wilson, 2006).

Information seeking behaviour may involve other people through information exchange. The user may seek information from other people rather than from systems. This also means that retrieved information perceived as useful may be shared with other people besides being used by the individual himself/ herself. Therefore, there is an element of reciprocity, a fundamental aspect of human interaction. Information retrieved from the available source will be used by the user. The 'use' of the information may satisfy or fail to satisfy the need. However, in both cases, the information may be relevant to the need of another person and consequently may be 'transferred' to that person either orally or through physical document containing the fact, ideas, opinion or advice. (Wilson, 2006)

Wilson's 1981 model is suitable for this study since it is within the field of information behaviour and helps in understanding the information seeking behaviour of users. In relation to the objectives of this study, it draws attention to information users, in this case international students, it indicates the information needs of the users (international student), how they look for information (information-seeking behaviour), the information sources they demand upon

(either manual, electronic or both) and what they do when they fail (challenges) to obtain the acquired information at the initial stages.

Wilson's (1981) model bears a number of limitations which has been identified by Potnis (2015) as;

1. The model does not suggest any casual relationship among information behaviour concept.
2. The model does not assume barriers to seeking information have any effect on the user motivation for seeking information.
3. The model does not suggest hypotheses to be tested.

Despite the above-mentioned limitations, Wilson's 1981 Information Behavior model remains relevant to this study as the researcher is able to infer the context within which international students constituting individuals with different demographic and educational backgrounds identify their information needs and how the information is acquired and used.

Table1.1 Mapping theoretical attributes to Objectives of the study

Theoretical Attributes	Objectives of the study	Instrumentation
Information User	International students	Questionnaire
Information needs	To determine the information needs of international students	Questionnaire for students, Interview for head of IPO
Information-seeking behaviour	To examine how international students seek information	Questionnaire
Demands on information systems and other information sources	To identify the information sources used by international students	Questionnaire for students, Interview for head of IPO
Success/ failure	To investigate the challenges experienced when seeking information	Questionnaire

1.6 Scope of the study

The nature of the study requires an institution which makes provision for the enrolment of students within its continent and around the world. Therefore, International students in the University of Ghana, were the subjects of the study.

The study focuses on the information behaviour, the sources used to access information, the challenges involved in accessing information and the remedies to these problems as well the measures to be put in place to improve upon information delivery services and systems used

by international students. This study considers both African international students and those from outside of the continent as international students.

1.7 Significance of the study

It is important for academic institutions to be abreast with the characteristics of its culturally diverse patron groups (international students) whose information needs and behaviour may differ from the native patron groups in order to develop the appropriate systems to satisfy their information needs. The outcome of this study will be beneficial to Ghanaian academic institutions in identifying the current and pressing information needs of international students to help universities understand this patron group and put in place effective measures to accommodate or serve them well. The findings of this study will also help to improve the services offered to international students and contribute to the growing body of knowledge in this area of research by filling the gaps in the literature as discussed earlier in section 1.2.

1.8 Organization of chapters

The dissertation has been structured according to the following chapters:

Chapter One: This chapter as an introductory chapter covered the background of the study, statement of the problem, the purpose of the study, the objectives of the study and its theoretical framework, the significance of the study and the description of the chapters.

Chapter Two: This chapter analysis prior researches conducted in relation to information seeking behaviour of international students. Thus, it provides a review of the literature related to the study.

Chapter Three: This chapter describes the research methodology and design. It identifies the population and the sampling techniques applied, the data collection procedures, the instruments used in data collection and the data analysis procedures.

Chapter Four: This chapter covered the presentation of findings and discussion

Chapter Five: This chapter covered the summary of the findings, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two reviewed relevant literature on the information seeking behaviour of international students. This literature review justified the purpose and objectives of the study as well as the importance of the study.

Creswell (2012 p.80) defines a literature review as a “written summary of articles, books and other documents that describe the past and current state of knowledge about a topic and documents the need for a proposed study”. The relevancy of literature review as identified by Kumar (2011 p.63) is that, “it provides a theoretical background to the study, helps to establish the links between what is to be examined and what has already been studied and establishes how the findings have contributed to the existing body of knowledge.” The literature reviewed were based on themes which were derived from the objectives outlined in section 1.4

The major sub-headings covered were:

2.2 Concept of Information

2.3 Information needs of international students

2.4 Information seeking behaviour of international students

2.5 Information sources used by international students

2.6 Information seeking problems experienced by international students

2.7 Information service delivery for international students

2.2 Concept of Information

Information, formed out of the Latin word *Informatio*, is a key concept which means formation or conception, used in many scientific disciplines within differing context. In recent years, information has been considered as one of the basic conditions needed for societal development (Capurro and Hjørland, 2003). Although information is vital in all aspects of human activities, Wilson (2006) observes that, information does not have a central definition applicable for all human activities. Nevertheless, Case (2012) argues that the different definitions and concepts of information helps to complement and create a deeper understanding of the ‘information’ concept.

As mentioned, the concept of information has been explained in diverse ways by several authors. Some scholars have defined information in relation to the concept of data and Knowledge. For instance, Case (2002, p. 62) defines information as “data that has been gathered, processed and analysed to provide a useful result called information”. Thus according to Feather and Sturges (2003, p.244), data becomes information once it has been “organised, analysed and given value in a meaningful and relevant manner for present or future use”. In the same line of thought, Kaniki (2001, p.191) also defines information as “ideas, facts, and imaginative works of the mind and data of value, potentially useful in decision making, question answering, and problem solving”. Knowledge, on the other hand, involves “belief and truth as well as logic and proof” (Sanders, 2016 p.223).

Buckland (1991) and Case (2012) further analyse ‘Information’ as a term that can be used in relation to ‘Things’ (Data, document), ‘Processes’ (Data processing, document processing) and

‘Knowledge’ (knowledge engineering). Thus, information may be reflected as a thing, a process and as knowledge.

Based on Shannon and Weaver’s communication theory, other scholars have explained the concept of information to be that which involves an exchange between individuals. According to Luhmann (1987, pp.193-194), “Information is not something identical for both sender and receiver, but it has to be constituted through the communication process”. Thus, Bogdan (1994, p. 53) defines information as “a pattern of communication between source and receiver, a form of control and feedback, the probability of a message being transmitted over a communication channel, the content of a cognitive state, the meaning of a linguistic form, or the reduction of an uncertainty”. Similarly, Machlup (1983) defines information as a “human phenomenon that involves individuals transmitting and receiving messages in the context of possible actions”.

According to Stodola (2019), information science is one of the fields in which the term ‘Information’ plays an important role. Cronin (2009, p.109-127) as cited in Stedola (2019), brings light to the various paradigmatic turns that the concept has taken over the past years. The first turn perceived information as something related to an “information system which is used for retrieving, sorting, storage, searching and dissemination of information (examples of such systems may be a library or an electronic database)”. The second turn, also known as “the cognitive turn, highlights a shift from the information system and focuses more on the user of information”. Last but not least, the third turn, based on a social view, focuses more on the information creator.

The current study having considered all opinions and explanations from different scholars as outlined in this section on the meaning of the concept of information, applied Kaniki's (2001, p. 191) definition of information, which has been defined as "ideas, facts, and imaginative works of the mind and data of value, potentially useful in decision making, question answering, and problem solving". Kaniki's definition was found to be appropriate for this study because it elucidates the purpose of the concept of 'information' in the context of Library and Information science, as a problem solving and decision-making process.

2.3 Information needs of international students

Information need may simply be described as "the information that individuals ought to have in order to do their job effectively or solve a problem" (Nicholas and Herman 2009). According to Bean (1986 p. 47) as cited in Parsons (2000), "it is unethical to admit students for the benefit of the institution and not for the good of the students". Therefore it is necessary that, students' needs are determined so as programmes and services are availed to meet the student's demands and help them to adapt to their new environment.

Information is one of the most useful assets to international students for various academic, personal and social purposes (Safahieh & Singh, 2006). Thus, in order to satisfy the needs of international students, being aware of their motivational drive and expectations of studying outside of their own country is required of the host university (Cadd, 2012).

The international student community consist of a diverse multicultural group who are focused on achieving academic excellence and success in their various host universities abroad. Achieving this goal means learning to adapt to new academic environment and also leaving behind their social support network of family (Parsons, 2000). As a way of integrating this diverse group into the wider community and creating a sense of belonging in their new academic environment, host institutions are charged to ensure the maximum satisfaction of the students' information needs. Assisting this multicultural group in achieving academic excellence and satisfaction requires the identification of their most pressing needs in relation to their academics as well as various social and personal needs.

The most critical period as stated by Parsons (2000) to meet international student needs, is before and after arrival of the student, as information retrieved and received by students during this critical period may influence their opinion of the host University for the rest of their stay. Depending on the stage or period of an international student's study abroad, the information needs may vary. The stages, which include "pre-arrival, arrival support, induction and welcome, learning in the classroom (academics), life outside the classroom, and completion and return" (Perez-Encinas & Rodriguez-Pomeda 2017), will demand for information not only related to academic issues but of extracurricular activities and external services to be provided by the host institution. In a study on "the Adjustment of foreign graduate students in the University of Toronto", Boonyawiroj (1982) asserts out that "pre-departure preparations assisted international graduate students in their initial adjustment to the university and this pre-departure preparation included an information package about studying and living in the host university."

In another study where Hanassab and Tidwell (2002) assess “the needs of international students in higher education and examine their overall experiences since entering an institution of higher learning in the United States”, they indicated that “international students reported knowledge of immigration regulations and visa requirements as their first most important need required to accomplish their career and academic-related goals”.

Relatively, an individual’s information need may also be influenced by certain factors such as demographic, educational and cultural background and the social context in which the need arises (Wilson, 1997). Most international students as found in literature (with exception to those who may have had their previous educational experience in their current host countries) may have had differing educational experiences in their home countries. Thus, studying abroad and being introduced to a new and perhaps a diverse academic environment influences the type and sometimes the source of information sought for by the student in order to adapt to his or her new environment. For instance, the findings of Majyambere (2013) revealed that most “international postgraduate students in South African Universities had different academic and personal information needs at the host universities mainly due to the fact that some of the students have had or completed their previous degrees at their home universities” Other factors that may influence international students’ information needs, as shown by Dagli (2004) and Yi (2013), include educational level, gender and age.

Singh et al. (2015) in their study on the “information needs and information seeking behaviour of foreign students, particularly post-graduate, M.Phil. and Ph.D. foreign students in the University of Delhi”, using a survey method, found that, “66 (91.6%) of the post graduate respondents need information regarding their programme of study while all 16 (100%) research

scholars need information for writing research articles. Pertaining to gender, both males and females (47.2%) equally need information regarding continuing education after completion of their course. Only 11.11% of females seek information regarding immigration while 52.7% males seek that information. On the other hand, 56.5% males seek information related to finding a job while only 38.8% of females seek the same information”. The results indicate differences in information needs based on level of education and gender.

Other findings project the information needs of international students to be that related to library use. For instance, in Jackson (2005) survey of “incoming international students’ library and computer experience at San Jose State University”, respondents repeatedly stated their need for internet access and longer hours to use online resources while they are inside the library while others stated that they want the library to provide more resources in other languages apart from English, especially daily newspapers from their home countries.

In adjusting to a new academic environment, it has been argued by various researchers (Hyldegård & Hertzum (2016); Majyambere (2013); Tidwell & Hanassab, 2007) that, the information needs of international students are not only related to issues concerning academic work, however, their information seeking extends to their social and personal needs which are as important as their academic needs. According to Tidwell and Hanassab (2007), most host institutions only pay attention to the educational requirements of students and do not consider other critical factors that may also determine the possible achievement or failure of students in a changed environment.

It has also been argued by Chung and Yoon (2015) that, international students have information needs that may relatively differ from that of local students in terms of academic, social or personal, spiritual and emotional needs possibly because international students must adjust their lives and confront new challenges in foreign countries. Just as international students face new academic environments with various challenges relating to language barrier, communication etc., they are likely to face similar challenges in the new socio-cultural environments that they will encounter and this will require them to ascertain information in order to adapt to their new space and satisfy their social and personal needs.

A number of empirical studies have identified international students' academic information needs as those relating to their coursework, project works, faculty and program of study and university related concerns such as teaching techniques and information channels (Perez-Encinas & Rodriguez-Pomeda (2017); Olorunfemi (2018); Safahieh & Singh (2006) whereas the social and personal information needs have been identified as those related to Accommodation, transportation Funding/financial processes, cost of living and city offerings (Kitao (1988); Hyldegård & Hertzum (2016), Majyambere (2013).

2.4 Information seeking behaviour of international students

“The concept of information seeking involves the search, retrieval, recognition and application of meaningful content as a consequence of a need by a user who may make demands upon formal and informal sources in order to satisfy the information need” (Olorunfemi, 2018 p.3).

Most studies have investigated the “information seeking behaviour of international students” in relation to the various channels through which they seek for information, both formally and informally as well as their library use. These studies have found variations in the information seeking pattern of the students based on their level of education, information need and individual preference and gender.

In relation to the educational level of international students, it has been asserted that the information seeking experiences and opinions of undergraduate students were slightly different from that of graduate students. For instance, in Parsons (2000) study of “the information needs of international students attending Memorial University of Newfoundland”, graduate students were found to experience more personalized services from faculty members and supervisors due to their small-medium sized student population compared to undergraduate students. Undergraduate students, mostly in their first year of study abroad, were found to rely more on their colleagues and friends for assistance.

Similarly, Abdoulaye’s (2002) research “study of the information-seeking behaviour of African students in Malaysia” showed that, undergraduate students relied on various channels to seek for information except through reference librarians and their lecturers while PhD and masters students on the other hand, tend to seek information through the online public access catalogue (OPAC) and the library. Cooper and Hughes (2017) survey of “first-year international graduate students’ transition to using a university library” revealed that, during information seeking, 77% of the students reported that the primary source from which they sought for information for a specific assignment was their professor followed by a library web

page (59%) or a library staff (45%). Other channels consulted included family and friends (41%) and academic advisors or counsellors (27%).

Apart from seeking for information formally or informally, other findings portray that students are also “involved in both active and passive information seeking behaviour depending on the nature of their information need” (Majyambere, 2013). For instance, in Majyambere’s (2013) study of the “information seeking behaviour of Humanities/Arts International postgraduate students in public universities in KwaZulu-Natal Province, South Africa”, the findings indicate that students actively consulted their supervisors for information or guidance concerning project works and also gained guidance from subject librarians when they searched for information. On the other hand, students passively received information from the internet and through interactions with their colleagues.

International student’s use of the academic library also produces a clear understanding of their seeking behaviour. Nevertheless, literature indicates that this assertion is usually based on the quality of the library’s products and services, as well as other library facilities. Safahieh and Singh (2006) in their study of “the information needs of international students at the University of Malaysia” affirmed that, most international students attempt using the library to meet their information needs. During information seeking process, international students are usually motivated to reach out to more than one source for different categories of information, based on the quality of the information and accessibility of the source (Bhochhibhoya et al., 2017). For instance, most students indicated that the library had definitely changed their information seeking behaviour based on factors including quality of resources, automated system, the use of the OPAC, access to internet and conducive environment (Abdoulaye, 2002).

Furthermore, in a survey of the “library and information needs of international students in Kent State University”, Mackenzie (1995) found that international students in the 26-30 years age group, predominantly male graduate student respondents (78.8%) expressed the need for more multicultural materials in the library, such as current native language books, journals, magazines, and newspapers. Others also expressed the need for useful library instruction manuals because of a general lack of familiarity with online catalogues and other library automation.

Other studies indicate that, students have expressed their information seeking options to be based on the user service administered by reference librarians and other channels for information retrieval such as lecturers, tutors, friends and supervisors. It is often observed that, international students ‘tend to seek information that is easily accessible, preferably from interpersonal sources such as friends and colleagues rather than from formal channels’ such as their supervisors and lecturers and other faculty officers.

In a qualitative study conducted by Hughes (2012) on “International students using online resources to learn: complex experience and learning needs” at two Australian universities, it was found that, most of the students sought and gained information informally. Most of them sought information from library staff due to their willingness to teach the students how to do referencing and use online resources. Some of the students on the other hand, sought for practical help on the use of online resources from their colleagues and friends while a few learned to use online resources themselves. Conversely, tutors and lecturers were indicated by the students to be less approachable and less willing to provide support or guidance in using

online resources. They rather tended to give general information about particular links to internet sites and databases.

In relation to gender, less literature have specifically investigated how gender influences the seeking behaviour of international students. Nevertheless, Singh et al. (2015) “investigated the information needs and information seeking behaviour of foreign post –graduate and research students in the University of Dehli” and found that male students were found to use the library more for seeking information than their female colleagues. 57.4% of males seek information more often using the library catalogue (OPAC) than females (36.5%). Male students also indicated that they sometimes seek information through library staff.

2.5 Information sources used by international students

Literature indicates that an individual’s urge to satisfy a perceived information need causes him or her to make demands on various information sources and information systems. (Wilson, 1981) and these information sources may come in two forms; informal sources and formal sources. The informal sources have been identified as those involving colleagues, friends and family, whereas the formal sources may include library resources such as “books, reference materials, journals, theses and dissertations, textbooks and online resources” (Case, 2002; Abdoulaye, 2002).

Presently, information sources range from traditional sources such as books to modern types such as e-libraries and the Internet (Meratian Esfahani & Chang (2012; Olurunfemi (2018). In an attempt to make demands on the appropriate information sources, it has been observed that

international students often decide on different information sources based on their various information needs as well as the social context in which the information is required (Chung and Yoon, 2015).

In the context of international students, the information sources demanded upon have been found to be purposed for both academic and social information needs (Majyambere, 2013). The purpose for which a particular information source may be selected by the student could be based on academic and social activities such as research, class preparation, personal development and keeping-up-to-date (Marouf and Anwar, 2010).

In recent studies, it has been argued that the “internet is the most extensively used information source” by students for their academic and personal information needs. For instance, Cooper and Hughes (2017) survey of “first-year international graduate students’ transition to using a university library” revealed that, for assignments, the students resorted to e-books, online academic journals, Google, and Wikipedia. Print sources, except for print books were however reported to have low usage compared to online sources. Thus reflecting the surveyed international students’ preference for online sources.

Olurunfemi (2018) also conducted a research investigating the “information needs, information seeking behaviour, factors influencing information seeking behaviour and barriers to information seeking behaviour of international postgraduate students in Loughborough University”. The results indicated that the major sources of information used by international postgraduate students were “books and journals whilst the internet and the library were the preferred channels for seeking information”.

Singh et al. (2015) survey on the “information needs and Information Seeking Behaviour of Foreign Students in the University of Delhi” also indicate that most of the respondents; postgraduates and research scholars, use the internet as the main source of material for meeting their information needs, followed by the use of library resources such as “books, electronic resources such as databases, e-journals, e-theses and dissertations, newspapers and magazines”.

Nevertheless, Perley et al. (2007) observed that students use both print and online sources interchangeably for academic and personal purposes. However, their choices were usually based on convenience and accessibility. For instance, in a research study conducted by Abdoulaye (2002) on “Information-seeking behaviour of African students in Malaysia”, participants who were asked to indicate their reliance on information sources for doing their coursework and project work indicated library books, periodicals, textbooks and the internet as the four major sources used. Other sources used by respondents were lecturer’s notes, online databases and lecturer’s handouts. Arokyamany and Ramesesh (2009) in a similar survey conducted on the “information needs and information seeking patterns of foreign students in the University of Mysore” found that, various library and internet facilities were the major sources upon which foreign students relied on “to prepare themselves for academic seminars and assignments” as well as to find personal information.

Yi’s (2007) paper on “International student’s perception of information needs and use” indicate that, although international students made use of library printed materials hand-in-hand with online resources, differences were found in relation to the educational level of the students. Thus, the higher the education level the students attained, the more likely they were

to use online resources such as online databases, remote access to the library offerings, and e-journals frequently.

2.6 Information seeking problems experienced by international students

Although travelling to another country is “undoubtedly exciting, the experience can also be frightening and frustrating for many students. Unlike domestic students, international students may experience heightened levels of anxiety which may be as result of their newness to the university and the country” (Jackson, 2005 p.11). Earlier studies as cited in Safahieh and Singh (2006) indicate that the challenges faces by most international students are mostly related to “adapting to a new educational and social environment, financial pressures, lack of friends and language problem” (Australian Law Teachers’ Association, 1995).

From a review of recent literature, conclusions have been made by several researchers that suggest that, international students still have information needs that slightly differ from domestic students and that due to these differences, they do face certain barriers in meeting their information needs, related to both academic and private life and these challenges also result from pressure to adjust to a new culture and academic environment, variations in language and style of communication, “variations in perceptions of libraries and librarians and differences in learning styles and expectations” (Baba and Hosoda, 2014, Wang and Frank, 2002, Amsberry, 2009; Curry and Copeman, 2005; Baron and Strout-Dapaz (2001). Yu and Wright (2016) further categorizes the challenges faced by international students during their overseas study in a foreign community into four main themes namely; environmental adaptation, social adaptation, academic adaptation and psychological adaptation.

Jackson (2005 p. 10) opines that, “most international students find themselves in the cultural and language minority when they travel and enrol in a new educational system in foreign country, thus effective communication with linguistically and culturally diverse international students may pose a special challenge” to several international student service providers such as Librarians, lecturers and tutors. For instance, due to differences in communication style, the information conveyed by both the international student and the librarian may not necessarily reflect the intention of the message and may even cause misunderstandings. Thus the key to successful cross-cultural communication according to Zhang (2005), is having prior knowledge about the patrons of the service in order to facilitate equal access to information for all customers.

Stalker (1997) however notes that, “not all international students experience the same type of language challenge”. Some may be confronted with a dialect or accent difference while another group of students may speak a language totally different from the official language used for communication in the host institution (Maylath, 1997). Conteh-Morgan (2003) also notes that, “many international students come from English-speaking countries or are proficient in spoken and written English as a second language. Thus, language may not be the main barrier to academic success for all international students”.

Generally, most of the challenges identified by international students have been associated to having different academic and social environmental experiences in their host institutions or countries as compared to their home countries (Safahieh and Singh, 2006).

In relation to academic cultures and library experience, Wang and Frank (2002) suggest that, the challenges faced by most international students may arise from inexperienced use of various information technologies, shyness or reluctance to approach librarians because of language barrier and lack of information literacy. Research indicates that although students showed confidence in their information searching skills, they had little knowledge about the available academic resources in the library as well as the legal and ethical issues regarding information use (Liu and Winn, 2009) while others faced cultural adjustment issues, library anxiety, language barrier and a lack of information seeking skills in their use of the library (Foley, 2010).

Baron and Strout-Dapaz (2001) survey of “123 libraries and international programs support offices” further strengthen evidence that, some of the major challenges international students face in their academic endeavour are “language or communication problems, especially in adjusting to new educational library system, where both librarians and students encounter verbal and written language barriers and non-verbal communication problems and general cultural adjustments” (p. 314).

Hughes (2012 p. 6) further argues that, international students are more likely to be faced with three main types of challenges in relation to their new academic environment. First of such is information overflow, which has been explained as “challenges in managing multiple information types, online resources and strategies”. Hughes asserts that, international students may experience overflow of information arising from lengthy results list offered by online tools as well as difficulty in finding the suitable resource from which to retrieve information. The other two challenges was identified as, unfamiliarity and accessibility. On a personal level,

international students were found to experience unfamiliarity “associated with loneliness or strangeness with the informative-social environment at their host university” whereas on an academic level, international students may experience unfamiliarity with the use of information resources in academic practices. Accessibility challenges were found to be those relating to “technical difficulties in accessing the university system”, for example the library system or for identifying databases with full-text articles due slow internet connection or hardware failure.

In a similar study of the “information needs and Information seeking behaviour of foreign students”, Singh et al. (2015) found that, respondents were faced with different types of challenges while meeting their information needs. 63 (71.5%) of the respondents reported that there were few computer terminals in the library followed by the probable cause for poor use of the library, which was that, the library had old, outdated materials and this was indicated by 59 (67.04%) of the respondents. In addition, the female students reported that they had challenges in using the library catalogue (OPAC) because they had less knowledge of how to use it and were also unable to evaluate the information retrieved.

Further findings also indicate that, information seeking challenges that international students encounter are primarily due to their perceptions of the role of reference librarians as well as communication barrier. The students felt that because of their inability to clearly express themselves and their information needs due to their lack of fluency in the language (English), they may trouble the librarian with their questions and the librarians will not be able to understand them Kumar and Suresh (2002).

In relation to the social context, Sin and Kim (2013) indicate that international students are confronted with challenges related to cross-cultural adjustment issues such as “learning the social and cultural norms of the host country, accommodation, adjusting to a non-native language, and the general rules and procedures of the host institution”. Others encounter problems relating to poor medical aid services, high tuition fees, and regular increase in international levy, delay in renewing study permits, lack of international student policy documents, slow service of the international student office and lack of awareness of available university services (Majyambere, 2013). Chang (2011 p.3) further categorizes these challenges as “general living adjustment such as adjusting to food, finding affordable and adequate housing and transportation, dealing with financial constraints; socio-cultural difficulties such as experiencing culture shock; and personal psychological adjustment, such as homesickness and depression experiences”. Findings from Andrade (2006) survey of “International students in English-speaking universities” also show that, in terms of social adjustment, international students have more difficulty than domestic students because of the absence of a close inner circle group which may include family and close friends, thus leading to loneliness and homesickness.

According to Cook and Janet (1999), “although findings indicate that 80% of international students are able to transition in their new environment successfully, 20% of students still fail to come to terms with the academic and social demands of their new university”. Lee (2014) therefore, suggest the need for host institutions to adequately “support and prepare international students for their adjustment in their new academic environment in order to minimise the challenges that they face during their stay”.

2.7 Information service delivery for international students

Based on the myriad of information seeking challenges that numerous studies have brought up, Lieb (2016) asserts that ensuring satisfaction and positive learning outcomes of international students can be overwhelming for many host institutions. However, several studies have indicated that, host institutions do have the ability to ensure that the needs of international students are met in innumerable ways. It is opined that, all constituents including academic advisors, the international student offices, professors and counsellors, library staff and other supportive university departments, need to be well abreast and understand the information problems related to information seeking patterns of international students and must also work hand-in hand on behalf of international students, immediately they arrive on campus until they graduate (McPhee and Sloan (2010); Baba and Hosoda (2014)).

In line of this, Bianchi (2013 p.12) has identified two main types of services that are provided to international students by host institutions; “core services and peripheral services”. “The core services are those related to teaching and learning while the peripheral services are those related to living conditions of the host country including accommodation, transportation, visa requirements, cultural and social activities, security, etc.” These services as Kelo et al. (2010) indicate, are provided at different stages of the international student’s stay at the host institution and these stages include the pre-arrival service stage, the arrival service stage and lastly, the services provided during the student’s stay in the host institution.

According to Parsons (2002), the most important role of host institutions is to, comprehensively indicate the nature of their services through their international student offices, to their

“prospective international students” in order to allow both the students and the host institution to determine whether the services and programs to be provided will meet the needs of the prospective student or not, since not all the services provided by the institution may be suitable to their prospective international students.

On the hand, Safahieh and Singh (2006) argue that, libraries also have an important role to play in understanding and responding to the information needs of their patrons (international students) through library services and programs. Hughes et al. (2018) insight into “first-year international students’ skills of using library resources and services” showed that, the difficulties international students encounter often relate to their unfamiliarity with the academic environment and library systems at their host university. Findings from Jackson (2005 p.18) survey therefore suggest that, “international students should benefit from specialized library information competence and orientation programs”.

Effective promotion of library services and strengthening library outreach to this target student population is also recommended to enhance international student learning and increase awareness of library services and benefits relating to information-seeking, as well as the need for friendly and patient front desk reference librarians in order to reduce the cultural and linguistic barriers that impede international students’ information seeking and use (Mu, 2007). Academic librarians are therefore entreated to coordinate “more closely with international students in order to determine their preferences for library services and style of communication as most international students have been found to prefer face-to-face information services as well as web guides instead of printed instructions” (Sacker et al., 2008).

Hughes et al. (2018) and Jackson (2005) further suggest some ways in which the library can help meet the academic needs of international students and these include; “Creating a

partnership with university international programs offices and other departments, Assigning a librarian to international student programs and outreach, Increasing library orientation and outreach efforts to international students, Creating online tutorial for international students; Creating library web pages for international students and Planning a professional development seminar for library staff to strengthen communication between students from various cultures and language backgrounds and the library” (Jackson, 2005 p. 205-207).

From the international students’ perspective, Robert et al. (2015) in their paper ‘The Views of International Students regarding University Support Services’ reveal that, while most respondents felt that the range of support services provided was appropriate, the services could be improved by offering a more student-centred service structure and delivery. The respondents further stated that the quality of information provided, ease of access and timeliness of service provision, cost and perceived importance and awareness of services are some of the factors that influence their service use. Based on these opinions, Robert et al. assert that, providing a range of services certainly does not automatically improve the international student’s experience, unless the services are provided in a way which ensures they are utilized and effective.

According to Cooper and Hughes (2017 p. 15), another way that host institutions can assist international students in adjusting to their new academic environment is to “determine creative ways for libraries to partner and collaborate with faculty”. One reason being that, respondents indicated that, “professors were the primary source from which they learned about the library, information resources, and the research process”. Thus, better collaborations between the libraries and the teaching faculty can help “provide more information about the services of the

library and also assist faculty in addressing the basic problems international students may have in understanding what is expected of them”.

As several literatures have indicated that international students tend to have diverse information needs and challenges in both academic and social context. Chung and Yoon (2015), points out the need for host institutions to effectively consider international students’ wide range of information needs, especially those apart from academic information needs as well as provide specific information service systems for their international patrons (Rosenthal et al., 2006).

2.8 Summary of chapter

This chapter looked at key studies relating to the information seeking behaviour of international students were reviewed and the literature reviewed was organized using the objectives (section 1.4) of the study. The literature reviewed studies available on information needs of international students, information sources consulted by international students and the challenges faced by international students in satisfying their academic and personal information needs. The literature reviewed showed that, international students’ information needs are not only related to academic purposes but also personal/ social needs as well. Findings from the literature also reported language barrier and cultural barrier as some of the challenges international students experience when seeking information.

The literature review also shows that only a few studies have been conducted on information seeking behaviour international students in Africa especially Ghana as well as in the University of Ghana. Therefore, the findings of the information seeking behaviour of international students in the University of Ghana serves as an important addition to the body of knowledge on the topic.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology used for investigating the information seeking behaviour of international students. The research methodology explains how the research was undertaken specifying the procedures used to select, process and analyse information about the topic. The chapter outlines the research method, approaches and design applied throughout the study, the selection of subjects, population, sample size, sampling technique, data collection procedure, instrumentation and analysis of data.

3.2 Research approach

There are three main research approaches used to gather and analyse data and these include quantitative, qualitative and mixed method approaches.

Quantitative research is an approach that looks at “testing objective theories by examining the relationship among variables” (Creswell, 2014 p. 2). The variables are then measured on instruments as numbered data or in quantitative form that can be analysed applying statistical procedures. Qualitative research on the other hand, is an approach that is aimed at assessing the opinions, attitudes and behaviours of people on a particular subject. This type of research approach investigates reasons for human behaviour using in-depth interviews which generates data in a non- quantitative form (Kothari, 2004). Mixed method is a research approach that combines quantitative and qualitative methods or approaches in a single research study or in a set of related studies (Johnson and Christenson, 2012).

Although the current study tends to be more quantitative than qualitative, it incorporates both approaches thus making it a mixed method approach. A mixed method approach was adopted in the study because it helped bring complementary views on the research problem, aid interpretation (Saunders, Lewis & Thornhill, 2012), as well as gain in-depth understanding of the information seeking behaviour of the defined population (International students).

3.3 Research design

A research design, according to Kumar (2011 p.95), is a “plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems”. The research design describes the procedure for collecting information, selecting subjects and analysing data.

For the purpose of this study, the survey research design was applied. Surveys are useful in describing the characteristics of large populations and making generalizations of findings and are administered to a sample or the entire population of people to describe the opinions, attitudes, characteristics and behaviours of the population (Creswell, 2012). The use of the survey research design was suitable for this study as it helped to describe the information seeking behaviour of international students. The application of the survey design involved the use of both questionnaire and interview guide in order to gain a deeper understanding of the information seeking behaviour of the international student.

3.4 Setting/research environment

The research was conducted at the University of Ghana. The University of Ghana, the largest university in Ghana was founded in 1948 for the purpose of providing for and promoting university education, learning and research. The university has poised over the years to distinguish itself in the area of research to make an impact at both national and international levels. The University has a population of over 38,000 made up of students enrolled on regular programmes, sandwich programmes, distant education and students from affiliate institutions with a growing number of international students from over 70 countries joining either regular undergraduate or graduate programmes or other special programmes designed for international students (Public Affairs Directorate, 2016).

3.5 Selection of subjects

The subjects are the individuals selected for a study. This includes the population, sample size and sampling technique.

3.5.1 Population

A group of people from which a researcher selects a sample is called the study population (Kumar, 2011). The target population for this study were international students enrolled at the University of Ghana and the Head of the International Programmes Office (HIPO). The population of international students for this study were drawn from undergraduate international students enrolled by the Admissions Office at the International House of the University of Ghana.

Table 3.1: Population of the study

International students	Total no.
L100	100
L200	103
L300	92
L400	73
Total Population	368

Source: Admissions office, International House

3.5.2 Sample size

A subgroup of the target population from which required information is obtained, for the purpose of making generalizations about a target population is called a sample size (Kumar, 2011). The sample size aids the researcher in determining the number of participants to use in a study. Kumar (2011) asserts that, findings based on larger samples are more accurate than those based on smaller ones. Apart from helping to make accurate generalizations of findings, selecting a sample saves time as well as financial and human resources. Stratified random sampling, a key element of probability sampling was used to determine the sample size as it is a method that increases the chance of every international undergraduate student of being part of the study. The study used proportionate sampling to determine the sample size from each subgroup.

Since there was one HIPO, there was no need for selection. For the determination of the sample size of the population of international students on the other hand, the study adopted the Saunders, Lewis and Thornhill (2012) table developed, as cited in Kankam (2018) for selecting sample sizes for different sizes of population at a 95% level of certainty.

Table 3.2: Sample sizes for different sizes of population at 95% level of certainty

	Margin of error			
Population	5%	3%	2%	1%
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	334	384
500	217	340	414	475
750	245	440	571	696
1 000	278	516	706	906
2 000	322	696	1091	1655
5 000	357	879	1622	2388
10 000	370	965	1936	4899
100 000	383	1056	2345	8732
1 000 000	384	1066	2395	9513
10 000 000	385	1067	2400	9595

(Source: Saunders, Lewis and Thornhill, 2012)

A sample size of 168 was selected from an overall target population of 368 international students based on Saunders, Lewis and Thornhill's (2012) model at 5% error as in the table

3.1. This size was selected because the population figure lies closer to 300 than it is to 400.

The sample of 168 represents 47% of the total population.

The formula for selecting the sample size of students from each level of programme is

$$\text{Sample size} = \frac{\text{No. of students in each level of study}}{\text{Total international undergraduate student population}} \times 168$$

Therefore, the sample of international students used for the study is depicted in the table below

Table 3.2: Total sample size of international students. N= 168

Sample unit	Sample size
Level 100	46
Level 200	47
Level 300	42
Level 400	33
Total	168

3.5.3 Sampling technique

Sampling is the process of selecting a sample from a bigger population to become the basis for estimating the prevalence of unknown information regarding the bigger group. Probability and Non-probability sampling designs are the two main approaches adopted in most researches (Kumar (2011)).

Stratified random sampling, a probability sampling technique was used to determine the sample size. Stratified random sampling offers greater representativeness in situations where populations consist of subgroups or strata. (Babbie, 2008). Therefore, in this study, each level

of study that is, level 100, 200, 300 and 400 is described as a subgroup increasing the chance of every international undergraduate student being part of this study. Convenience sampling technique was used to select participants in the various strata. Convenient sampling is a non-probability sampling technique where a sample is drawn from the part of the population that is readily available in order to collect information quickly and efficiently. The Head of the international student admission office was selected for this study.

3.6 Data Collection Instrument

The study collected primary data through the use of online questionnaire and interview guide.

The questionnaire was used for the collection of quantitative data from the international students and the interview guide was used for collecting qualitative data from the Head of the international student admission office.

The current study's questionnaire items and interview guide were adapted from Majyambere's (2013) study of the information seeking behaviour of international students and was adjusted to suit the current study environment. The questionnaire included both open-ended and close-ended questions.

3.6.1 Questionnaire

A questionnaire is defined by Kumar (2011 p.138) as a "written list of questions, the answers to which are written down by respondents". The questionnaire is a structured format for data collection which is cheap and quick to administer to a large number of respondents covering large geographical areas (Walliman, 2010). Using a questionnaire enables the researcher to organize questions and receive replies without having to talk to the large number of respondents. As such questionnaires are required to be clear and comprehensible since the

meaning of the questions may not be readily explained to the respondents. The use of the questionnaire is less expensive and offers great anonymity.

3.6.2 Interview guide

Interview guide is a flexible tool suitable for questions that require probing to obtain adequate information. The semi-structured interview; one that contains structured and unstructured with standardized and open type questions was used in this study. The interview tool is useful for collecting in-depth information and questions can be explained.

3.7 Ethical consideration

Ethical consideration stems from the origins of a research study to its final completion and distribution Creswell (2012). Thus, in all the steps of the research, the researcher sought to adhere to all the procedures involved in applying for approval from the appropriate institutional offices per the codes of conduct governing research in the University of Ghana.

Before participation in the research, individuals were briefed on the purpose and aims of the study and how the results of will be used. The researcher also ensured the protection of participant's autonomy and voluntary participation.

3.8 Data Collection Procedure

After planning the research design, the task of data collection begins. To begin with, the researcher collected an introductory letter from the Department of Information Studies to the international student office known as the International House on the University of Ghana campus to obtain informed consent before undertaking the study and collecting data from the respondents. The questionnaire for the study was distributed to the international students online

and each student was given ample time to complete the questionnaire. The data collection exercise was performed over a period of three weeks whereas the interview with the Head of the international student admission office was scheduled virtually using semi-structured interview guide, based on the interviewee's availability and the arrangements of suitable time and date for the interview which was slated for October 20th, 2020. The respondent was assured of the confidentiality and anonymity of the information given.

The instruments for the study were pre-tested on a small number of people before it was used in earnest. Pre-testing is the examination of the understanding of each question and its meaning by respondents Kumar (2011). The questionnaire was pre-tested on two international students to ensure that items on the instrument reflect the objectives of the study. This enabled the researcher test for the validity and reliability of the chosen data collection instrument and to also correct errors and clarify ambiguous questions on the instrument and make the necessary adjustments.

3.9 Validity and Reliability

It is important that the results generated from a particular research approach (es) is reliable and the inferences made from the results of the study be valid. The validity and reliability of research instruments is also important to generate credible results or data.

Research reliability describes the situation where similar result is achieved when a study is replicated or conducted again, proving consistency and stability of the results of the study (Fowler, 2002). Reliability of the study was ensured through the process of directing questions and guiding the participants during data collection process. The researcher also ensured that

the same meaning of every research question asked was maintained throughout the data collection process.

Research validity describes the situation where the inferences drawn from the results of a study is correct or truthful (Johnson and Christenson, 2012).

The validity of the study was achieved through the use of triangulated instrument data within one survey as well as a pre-testing of the research instruments. For pre-testing, the online questionnaire was administered to two international students to test for errors and functionality. Based on the responses given, some questions were reframed and additions were made to suit the level of the respondents' comprehension. So as to give the right answers to the questions so that the objectives of the study can be met. The validity of the data was achieved based on how the questionnaire items were constructed and how accurately the respondents understood and answered the items.

3.10 Presentation of data and Analysis

The quantitative data collected for this study was analysed using the statistical package for social sciences (SPSS) version 25. The data was coded, cleaned and keyed into the SPSS software by the researcher. The use of the statistical package enabled the researcher organize the quantitative data and analyse the findings. The findings and results were presented in the form of tables and figures to aid in the understanding and easy interpretations of the results. The qualitative data collected from the interview was transcribed and analysed using thematic analysis.

CHAPTER 4

PRESENTATION OF RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results of the study. The purpose of this study was to investigate the information seeking behaviour of international undergraduate students in the University of Ghana. Data was analysed with regard to the objectives of the study which include:

1. To determine the information needs of international students at the University of Ghana.
2. To examine how international students seek information.
3. To identify the information sources used by international students.
4. To investigate the challenges experienced by international students when seeking information.
5. To find out how the information services offered to international students can be improved.

This chapter presents the findings from the administered online questionnaire and the semi-structured interview. The results from the questionnaire include academic and personal information needs of international student respondents; the formal and informal sources consulted, challenges experienced when seeking information; the use of library and resources and services; the international programmes office services and suggestions for improving information services.

The results from the semi-structured interview with the Head of the international student admission office include, information about the main IPO services; collaboration between the

IPO and other service providers; a policy document for international students and university support. Findings were described in writings and also presented graphically so as to further enhance the presentation of the findings.

4.1.1 Response rate

A total of 85 responses were received out of the expected 168 responses from international undergraduate students while the Head of IPO, Admissions Office was interviewed. Table 4.1 indicates that out of 169 expected possible respondents, the overall response rate was 86 respondents (51.1%). The response rate included 100% of interview data and 50.6% of survey data. Babbie (2005) stated that for a survey, a response rate of fifty percent (50%) is adequate for analysis and reporting. The response rate of fifty-one point one percent (51.5%) as stated above, fell within the accepted domain proposed by (Babbie, 2005).

Table 4.1: Response rate of respondents

N=169

Respondent	Data collection tool	Expected responses	Actual responses	Percent (%)
Students	Online questionnaire	168	85	50.6
HIPO	Interview	1	1	100.0
Total		N=169	86	51.1

Source: Field data (2020)

4.1.2 Presentation of results

The results of the questionnaires and interviews of the study are presented separately. The results from the students' questionnaires are first presented followed by the results from the

interview with the head of the international student admission's office. The percentages of the results presented were all rounded off to one decimal point.

International Students questionnaire results

This section presents the surveyed student responses based on the data collected from them through the use of online questionnaire.

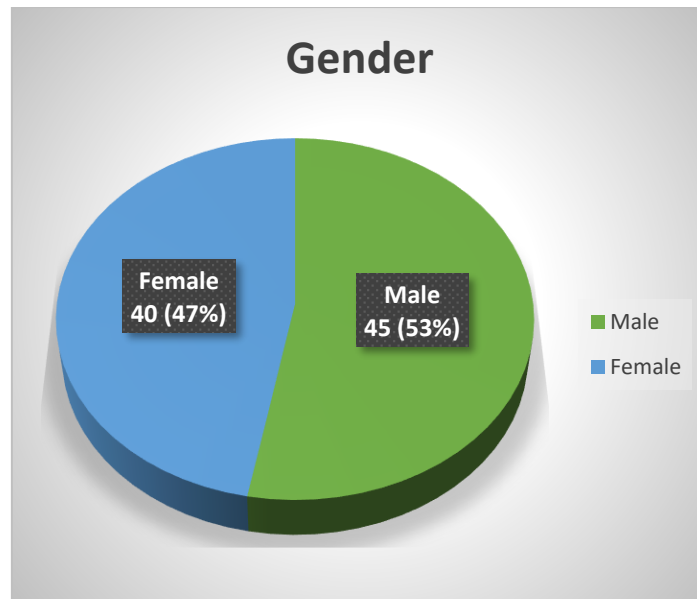
4.2 Demographical data of surveyed students

The demographic data of surveyed students was produced from 12 questions that were asked in section one of the questionnaire. This section provided general information including gender, age, and country of origin, level of study, educational background, main home language and official languages spoken by respondents and place of accommodation.

4.2.1 Gender of respondents

This section presents the gender of the international undergraduate students who participated in the survey. It involves both male and female respondents admitted by the international programmes office. Figure 4.1 shows that out of the 85 respondents, 45 (53%) were male and 40 (47%) were female students.

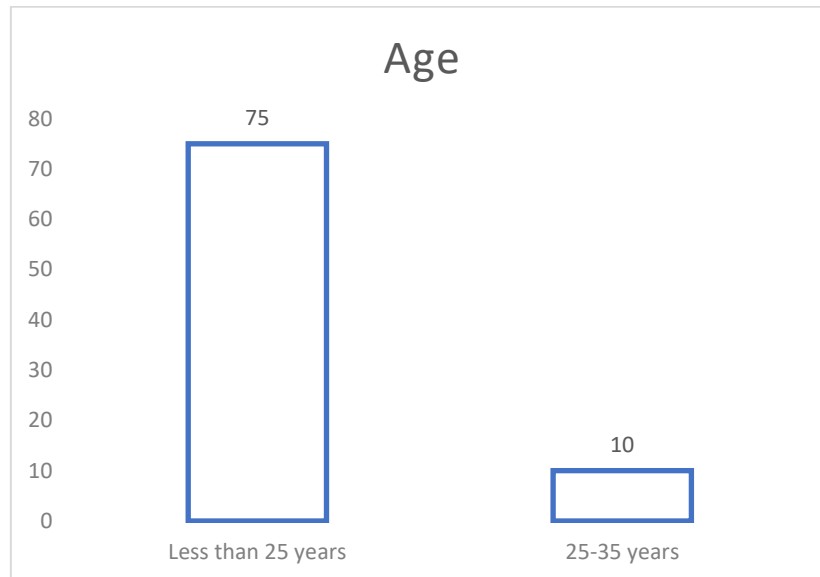
Figure 4.1: Gender



Source: Field data (2020)

4.2.2 Age range of respondents

This section presents the age categories of respondents. The age ranges were grouped into four categories of which the youngest age range was less than 25 years and the oldest age range was 46 years and above. Figure 4.2 shows that majority of the students 75 (88.2%) respondents, were less than 25 years, followed by the age range of 25-35 years with 10 (11.8%). This means that of the 85 respondents, more than half of respondents were less than 25 years old. As expected, this age bracket (less than 25 years) is usually the most predominant age bracket of most tertiary students.

Figure 4.2: Age

Source: Field data (2020)

4.2.3 Country of origin

This section presents the country of origin of surveyed respondents. All international undergraduate students who answered the questionnaire were generally from the African continent. Table 4.4 indicates the country of origin for all 85 respondents who participated in the study. Table 4.1 shows Nigeria as the largest represented country in the study with 37 (43.5%) respondents, followed by Togo with 12 (14.1%) respondents. This is followed by Cote d'Ivoire with 7 (8.2%) respondents, Mali with 6 (7.1%). Two countries were represented by 4 (4.7%) respondents each. These were, Sierra Leone and Cameroon. Three countries were represented by 3 (3.5%) respondents each. These were Angola, Liberia and Democratic Republic of Congo (DRC) and Benin with 2 (2.4%) respondents. Last but not least, four countries were represented by 1 (1.2%) respondent each. These were, Gambia, Burkina Faso, Zimbabwe and Kenya.

Table 4.1: Country of origin

Country of origin	Frequency	Percent (%)
Nigeria	37	43.5
Togo	12	14.1
Ivory Coast	7	8.2
Mali	6	7.1
Sierra Leone	4	4.7
Cameroon	4	4.7
Liberia	3	3.5
Democratic Republic of Congo	3	3.5
Angola	3	3.5
Benin	2	2.4
Gambia	1	1.2
Burkina Faso	1	1.2
Zimbabwe	1	1.2
Kenya	1	1.2
Total	85	100

Source: Field data (2020)

4.2.4 Level of study

This section presents the undergraduate level of study of participants involved in the study. International undergraduate students surveyed in the study were grouped into four levels of study which included level 100, level 200, level 300 and level 400. Table 4.2 shows that, of 85 respondents, level 300 produced the highest number 32 (37.6) of respondents, followed by level 200 with 30 (35.3%) respondents. Level 400 with 17(20.6) respondents, with level 100 producing the least number 6(7.1%) of respondents.

Table 4.2: Level of study

Level	Frequency	Percent (%)
100	6	7.1
200	30	35.3
300	32	37.6
400	17	20.0
Total	85	100.0

Source: Field data (2020)

4.2.5 Nature of study

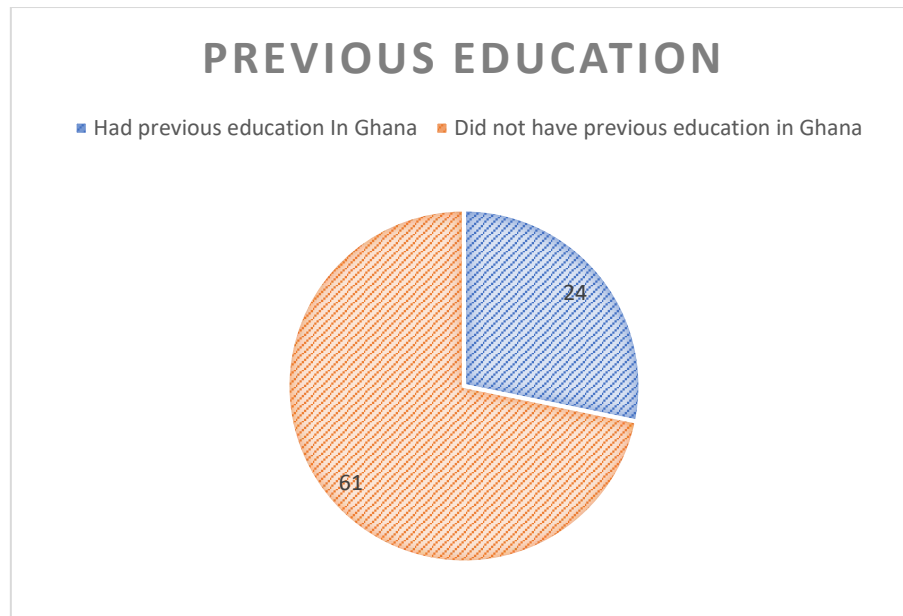
International undergraduate students who participated in the study were either full-time students or part-time students.

All students 85 (100%) indicated that they were full-time students.

4.2.4 Previous Education

Respondents indicated where they had obtained their previous education. Figure 4.3 shows that, of the 85 respondents, more than half, 61(71.8%) did not have their previous education in Ghana while 24 (28.2) respondents indicated that they have had previous education in Ghana.

Figure 4.3: Previous Education



Source: Field data (2020)

4.2.5 Country where student had previous education

Respondents who did not have educational background at the surveyed university indicated the country in which they studied before enrolling at the present host university. All respondents who did not have their previous education in Ghana, 61(71.8), indicated that they had their previous education in their various countries of origin.

4.2.6 Place of accommodation

Respondents were asked to indicate the type of accommodation that they were subscribed to during their current study period at the surveyed university. Table 4.3 shows that, of 85 respondents, the majority of respondents, 69 (81.2%) were utilizing university residence while 16 (18.8%) respondents were staying off-campus.

Table 4.3: Place of accommodation

Student Residence Status	Frequency	Percent (%)
Off-Campus	16	18.8
University Residence	69	81.2
Total	85	100.0

Source: Field data (2020)

4.2.7 Application for university residence

Respondents, who indicated that they were staying off-campus were asked whether they had applied for university residence or not. Of the 16 (18.8%) that indicated staying off-campus, 9 (56.3%) respondents indicated that they applied for university residence while 7(43.8%) indicated otherwise.

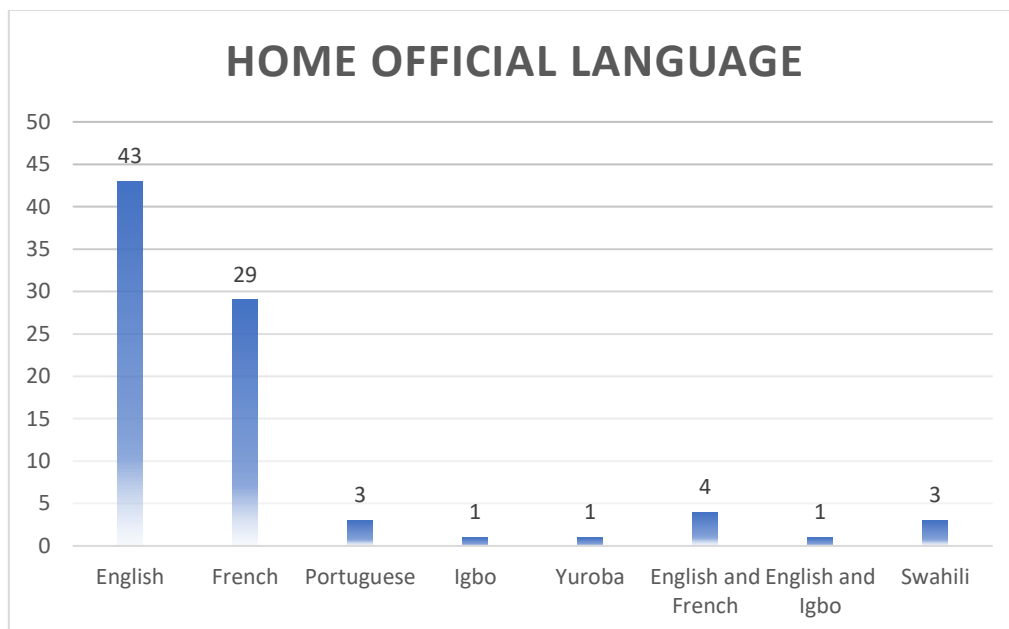
4.2.8 Reasons for not being accommodated in a university residence

This section asked the respondents to specify the reasons for not obtaining residence accommodation which they had applied for. Of the 9 (53.3%) respondents to this question, 5 provided the following reasons: rooms were filled up 4(80%) and unaware of when residence application portal was opened 1 (20%). Three did not provide any reason why they were not given accommodation in a residence.

4.2.9 Home official language

This section presents the home language spoken by the surveyed international undergraduate students. Figure 4.4 shows the official home languages which were spoken by the respondents. The most common home languages were English, 43(50.6%) and French, 29(34.1%). 4 (4.7%) respondents indicated the use of both English and French as home language, while 1(1.2%) indicated the use of both English and Igbo. Other languages indicated were Portuguese, 3(3.5%) respondents and Swahili, 3 (3.5%) respondents.

Figure 4.4: Home official language



Source: Field data (2020)

4.2.10 English language proficiency problems

Of the 85 respondents, 62 (72.9%) reported that they did not experience English as a problem in their current university, while 25 (27.1%) indicated that they had experienced some English proficiency problems. Table 4.4 shows that of the 68 respondents to this question, a majority of 35 (51.5%) indicated problems with speaking and communication. 27(39.7%) respondents reported problems of listening and understanding and 3 (4.4%) reported problems with reading and writing respectively.

Table 4.4: English language proficiency problems

Language problem encountered	Frequency	Percent (%)
Reading	3	4.4
Writing	3	4.4
Speaking/ Communicating	35	51.5
Listening/ Understanding	27	39.7

Source: Field data (2020)

4.3 Information needs and information seeking behaviour of international Undergraduate students

This section provides data relating to the academic and personal information needs of students and their information seeking behaviour involving multiple sources consulted. It also discusses

the problems experienced by respondents when seeking information and explains the use of library resources for academic purposes.

4.3.1 Information needs related to academic studies

Table 4.5 shows that, majority of respondents, 64 (25.1%) indicated information regarding registration process as the most pressing academic information need, followed by information relating to test and assignments, 54(21.2%) as well as information regarding lectures from 45 (17.6%) respondents. Other academic information needs were related to financing studies, indicated by 21(8.2%) respondents, information on research topic; 21(8.2%) respondents, English language proficiency by 19(7.5%) respondents, writing dissertation by 16(6.3%) respondents and information literacy skills by 15(5.9%) respondents.

Table 4.5: Academic information needs

Academic needs	Frequency	Percent (%)
Registration process	64	25.1
Financing studies	21	8.2
English language	19	7.5
Research topic	21	8.2
Information literacy skills	15	5.9
Writing thesis/ dissertation	16	6.3
Issues around lectures	45	17.6
Test and Assignments	54	21.2

***(Multiple responses received)**

Source: Field data (2020)

4.3.2 International undergraduate students' personal information needs

In this section, respondents were asked to indicate information services related to their personal needs while studying at their host university. Table 4.6 shows that majority of respondents, 56 (24.3%) indicated information regarding accommodation as the most pressing personal need, followed by information relating to security issues; 49(21.3%) as well as information regarding travelling issues from 36 (15.7%) respondents. Other personal needs were related to entertainment indicated by 31(13.5%) respondents, family issues by 23(10.0%) respondents, financial issues by 21(9.1%) respondents, and cultural issues by 14(6.1%) respondents. None of the surveyed respondents reported health issues as pressing personal needs.

Table 4.6: Respondents personal needs

Personal needs	Frequency	Percent (%)
Accommodation	56	24.3
Security issues	49	21.3
Travelling issues	36	15.7
Entertainment	31	13.5
Family issues	23	10.0
Financial issues	21	9.1
Cultural issues	14	6.1
Health issues	—	—

(*Multiple responses received)

4.3.2 Sources used by respondents to meet academic information needs

Respondents were asked to describe the sources they used to satisfy their academic information needs. The study revealed that the respondents consulted formal systems and people such as lecturers/supervisors and colleagues.

Table 4.7: Main sources for meeting academic information needs

Source	Frequency	Percent (%)
IPO	66	24.1
School/Faculty office	23	8.4
Librarians	14	5.1
Lectures/Supervisors	31	11.3
Colleagues	45	16.4
SRC	12	4.4
Internet use	42	15.3
University Computer services (UGCS)	19	6.9
International students association	16	5.8
Student counselling center	6	2.2

(*Multiple responses received)

Source: Field data (2020)

4.3.3 Sources consulted to satisfy personal information needs

This section asked respondents to indicate the multiple sources consulted to resolve their personal information needs. Table 4.8 shows that the two major sources consulted by respondents in meeting their personal need was the international programmes office by 31(23.5%) respondents and the internet by 30(22.7%) respondents. This is followed by consulting friends, indicated by 18(13.6%) respondents. Other sources consulted by respondents were parents by 13(9.8%) respondents, family members by 7(5.3%) respondents, university faculty by 5(3.8%) respondents and students financial office by 1(0.8%) respondent. 7(5.3%) respondent indicated to have no sources upon they consulted to satisfy their personal need.

Table 4.8: Sources consulted for personal needs

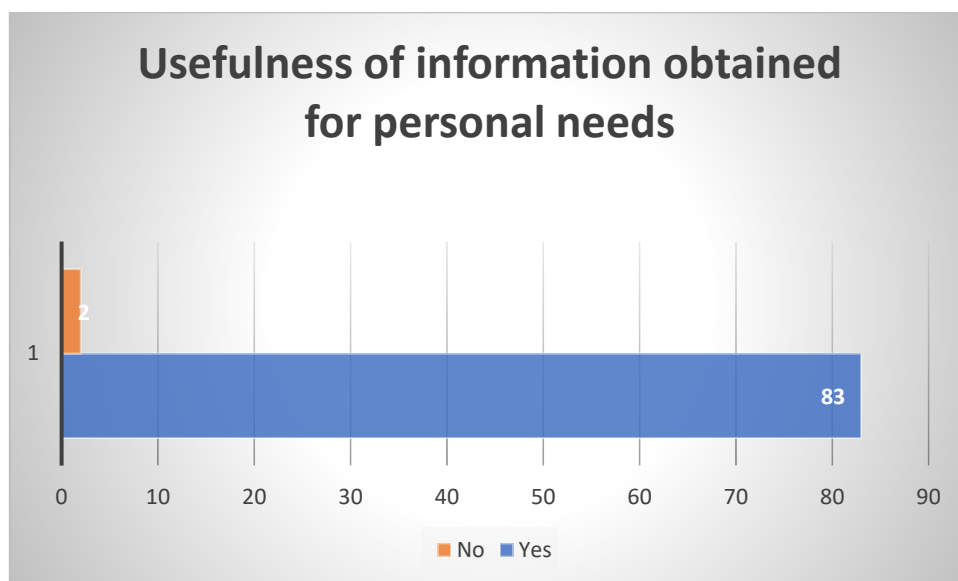
Source	Frequency	Percent (%)
IPO	31	23.5
Family	7	5.3
Colleagues	6	15.2
Parents	13	9.8
University faculty	5	3.8
Friends	18	13.6
Internet	30	22.7
Student financial aid office	1	0.8
N/A	7	5.3

Source: Field data (2020)

4.3.4 Usefulness of information obtained from sources

In this section, respondents were asked to indicate whether information obtained from the sources was useful for their personal information needs. Figure 4.5 shows that out of 85 respondents, majority 83(97.6%) indicated that information received from the sources used to solve their personal needs were useful, while 2(2.4%) indicated that the information received from the used sources was not useful. Some of the reasons stated by respondents for considering the information received from the used source as not useful were that, the source was unsupportive and information received was inaccurate.

Figure 4.5: Usefulness of information obtained for personal needs



Source: Field data (2020)

4.3.5 Problems experienced with sources used

Respondents were asked to elaborate on the problems experienced when consulting different sources of information for academic and personal purposes.

4.3.5.1 School/Faculty Office problems

Three respondents mentioned problems experienced when consulting the School/Faculty Office to meet their academic information needs. Of the 3 respondents, one (33.3%) mentioned faculty unavailability, the second respondent mentioned delay in responding to complaints and the third respondent mentioned no feedback to complaints.

4.3.5.2 Problems with consulting academic librarians

Only one respondent mentioned problems experienced when consulting academic librarians. The respondent mentioned the unapproachable nature of librarians.

4.3.5.3 Problems with consulting lectures/Supervisors

Eight respondents indicated problems experienced when consulting lecturers/supervisors to meet their academic information needs. Of the 8 respondents, 4 (50%) mentioned the problem of unavailability. The remaining 4(50%) mentioned problems relating to teaching style of lecturers, not understanding what was being taught, lateness by lecturers and not responding to complaints.

4.3.5.4 Problems with consulting colleagues

Ten respondents mentioned problems experienced when consulting colleagues/friends to meet their academic information needs. Of the 10 respondents, 9(90%) mentioned provision of

wrong information as a major problem while 1(10%) respondent mentioned colleagues being unapproachable as another problem.

4.3.5.5 Student Representative Council (SRC) problems

Six respondents mentioned problems experienced when consulting the SRC to meet academic information needs. Of the 6 respondents, 1(16.7%) mentioned an underrepresentation of international students in the SRC as a problem. The remaining 5(83.3%) mentioned complaints not being responded to as a problem.

4.3.5.6 Internet use problems

Fourteen respondents mentioned problems experienced when using Internet facilities to satisfy their academic information needs. Of the 14 respondents, 8(57.1%) mentioned the main problem of poor internet connectivity around campus. 6(42.9%) others mentioned the problem of inaccurate search results from the internet.

4.3.5.7 Computer service problems

Only one respondent mentioned problem experienced when using computer services to satisfy their academic information needs, that is, delay in resolving complaints.

4.4 Use of library resources for academic studies

This section sought to investigate whether international undergraduate students used library resources. The study revealed that, of 85 respondents, 62 (72.9%) used both print and electronic resources available at the university libraries for their academic information needs while 23 (27.1%) respondents indicated otherwise.

4.4.1 Library resources used

In this section, respondents were asked to list the main library resources used to satisfy their academic information needs. Table 4.9 below shows that the two most frequently used library resources by respondents were print materials by 40(18.2%) respondents and online databases by 40 (18.2%) respondents. This was followed by the use of the library's printing and photocopy facility. Other resources used were: the library catalogue by 26 (11.8%) respondents, discussion rooms by 23(10.5%) respondents, reference collection by 19 (8.6%) respondents, thesis/ dissertation by 15(6.8%) respondents, short loan library service by 12(5.5%) respondents and subject librarians by 11(5.0%) respondents.

Table 4.9: Library resources used

Library resource	Frequency	Percent (%)
Library catalogue	26	11.8
Online databases	40	18.2
Print materials	40	18.2
Thesis/ Dissertations	15	6.8
Reference collection	19	8.6
Subject librarians	11	5.0
Short loan	12	5.5
Discussion rooms	23	10.5
Printing and Photocopy facilities	34	15.5

(*Multiple responses received)

Source: Field data (2020)

4.4.2 Sources consulted for awareness of library resources.

In this section, respondents were asked to identify sources that they consulted to become aware of library resources. Table 4.10 shows that the three most frequently consulted sources to become aware of available library resources were library websites by 43(20.6%) respondents, library guides by 38 (18.2%) respondents, and Library orientation by 37(17.7%) respondents. Other major sources consulted were colleagues by 33(15.8%) respondents, lecturers/supervisors by 32(15.3%) respondents and subject librarians by 26(12.4%) respondents.

Table 4.10: Sources consulted for awareness of library resources

Source of awareness	Frequency	Percent (%)
Library orientation	37	17.7
Library guides	38	18.2
Library websites	43	20.6
Subject librarians	26	12.4
Lecturers/ Supervisors	32	15.3
Colleagues	33	15.8

(*Multiple responses received)

Source: Field data (2020)

4.4.3 Usefulness of library print resources

This section provides information about the usefulness of library print resources such as books, the reference collection and dissertations. Table 4.11 indicates that out of 85 respondents who rated the usefulness of print resources, majority of respondents; 83(97.6%) considered print books to be either very useful or somewhat useful (Neutral). This was followed by 80 (94.2%) respondents who considered reference materials to be either very useful or somewhat useful. Journals were rated very useful by 47(55.3%) respondents and somewhat useful by 35 (41.2%) respondents. Thesis/Dissertation was rated very useful by 40(47.1%) respondents and somewhat useful by 41(48.5%) respondents while 4 (4.7%) respondents indicated to have no idea of what thesis/ dissertation was. Indexes and abstracts were indicated to be the least very useful print resource by 35(41.2%) respondents while 9(10.6%) respondents indicated they had no idea of what it was.

Table 4.11: Usefulness of library print resources

Library print resources	Very useful		Neutral		Not very useful		Don't know what it is	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Books	67	78.8	16	18.8	2	2.3	-	-
Reference materials	53	62.4	27	31.8	5	5.9	-	-
Journals	47	55.3	35	41.2	3	3.5	-	-
Indexes and abstracts	35	41.2	37	43.5	9	10.6	4	4.7
Thesis/ Dissertations.	40	47.1	41	48.2	1	1.2	3	3.5

(*Multiple responses received)

Source: Field data (2020)

4.4.4 Usefulness of library electronic resources

This section provides information about the usefulness of library electronic resources such as electronic book and journals, the OPAC and online databases. Table 4.12 shows that out of 85 respondents who rated the usefulness of electronic resources, majority of respondents; 81(95.3%) considered electronic journals and the library website and electronic journals as either 'very useful' or 'somewhat useful' (neutral). This was followed by online databases which was rated 'very useful' or 'somewhat useful' by 80(94.1%) respondents. Electronic books had a rating of being 'very useful' or 'somewhat useful' by 79(92.9%) respondents, a smaller majority of 78 (91.7%) respondents rated the library catalogue as either 'very useful' or 'somewhat useful' while 4(4.7%) of respondents indicated that they did not know what it was.

Table 4.12: Usefulness of electronic resources

Library electronic resources	Very useful		Neutral		Not very useful		Don't know what it is	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Library website	60	70.6	21	24.7	4	4.7	-	-
Library catalogue (OPAC)	46	54.1	32	37.6	3	3.5	4	4.7
E-books	62	72.9	17	20.0	4	4.7	2	2.4
E-journals	53	62.4	28	32.9	1	1.2	3	3.5
Online databases	66	77.6	14	16.5	4	4.7	1	1.2

(*Multiple response received)

Source: Field data (2020)

4.4.5 Problems experienced by students when using library resources

In this section, respondents were asked to mention some of the problems experienced in using print and electronic library resources.

4.4.5.1 Problems with Print resources

Table 4.13 shows that 1(20%) respondent reported issues of some books being outdated. 1(20%) respondent reported issue of books limited copies, 1(20%) reported accessibility issue and 1(20%) reported issue of clarity and visibility.

Table 4.13: Problem with Print resources

Challenge	Frequency	Percent (%)
Accessibility issues	1	20
Outdated	1	20
Limited copies	1	20
Clarity/visibility issues	1	20

Source: Field data (2020)

4.4.5.2 Problems with Electronic resources

Table 4.14 shows that 1(20%) respondent reported difficulty of logging in, 1(20%) respondent reported inadequate knowledge of operation, 1(20%) reported issue of inaccurate search results and 1(20%) reported issue of broad search findings.

Table 4.14: Problems with Electronic resources

Challenge	Frequency	Percent (%)
Log in difficulty	1	50
Inadequate knowledge on its operation	1	50
Inaccurate search results	1	20
Broad search finding	1	20

Source: Field data (2020)

4.5 Information related to International Programmes Office (IPO)

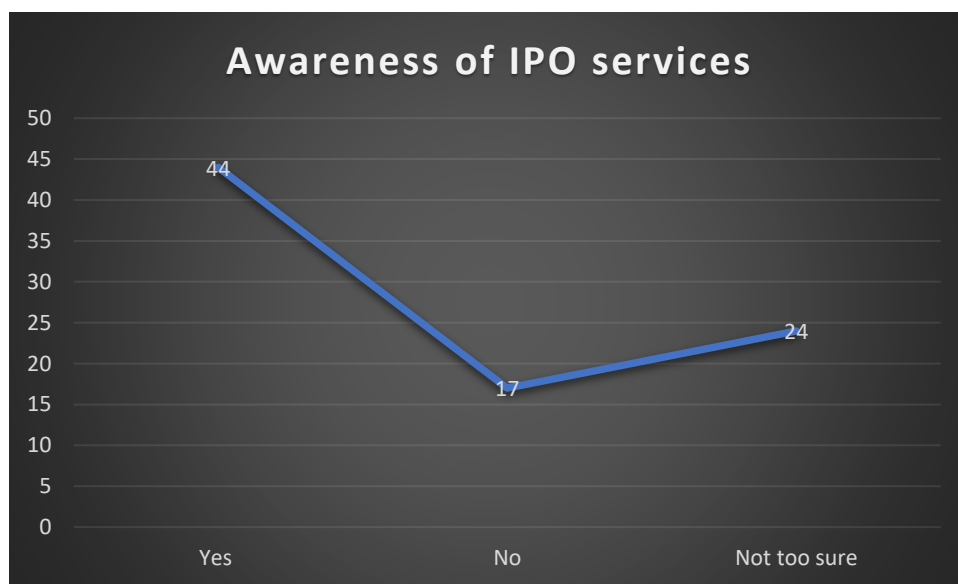
This section provides information regarding the use of IPO services by the international undergraduate students at the host university. It includes questions about awareness of the IPO services, channels of communication consulted for awareness of IPO services and usefulness of available IPO services.

4.5.1 Awareness of the IPO services

Respondents were asked to indicate whether they were aware of all of IPO services.

Figure 4.6 below shows that majority of surveyed respondents; 44(51.8) indicated that they had knowledge of all the services provided by the IPO, 17(20.0%) respondents indicated that they had no knowledge of the services offered by the IPO while 24(28.2%) respondents indicated that they were not sure if they were aware of all the services provided by the IPO.

Figure 4.6 Respondent awareness of the IPO services



Source: Field data (2020)

4.5.2 Usefulness of IPO services delivered to international students

In this section respondents were asked to rate some of the IPO services delivered to international students. Table 4.15 below shows that of the 85 respondents, majority of respondents; 62(72.9%) rated the IPO visa processing and extension as ‘very useful’ while 22 (25.9%) respondents rated as ‘neutral’. 45(52.9%) respondents rated international clearance as ‘very useful’ while 37(43.5%) respondents rated as ‘neutral’. 43(50.6%) respondents rated medical aid cover as ‘very useful’ while 39(45.9%) rated as ‘neutral’. Three (3.5%) respondents who rated the medical aid cover as ‘not useful at all’, gave the reason that, no information was provided about such service.

Table 4.15 Usefulness of ISO services delivered to international students

IPO services	Very useful		Neutral		Not useful at all	
	Freq.	%	Freq.	%	Freq.	%
Visa processing and extension	62	72.9	22	25.9	1	1.2
Medical aid cover	43	50.6	39	45.9	3	3.5
International clearance	45	52.9	37	43.5	3	3.5

Source: Field data (2020)

4.5.3 Additional IPO services suggested by respondents

Respondents were asked to indicate whether other services should be provided by the IPO. Of the 85 respondents, 75(88.2%) responded ‘No’ while 10(11.8%) responded ‘Yes’. Table 4.16

provides details about additional IPO services suggested by respondents and some of the suggested ways to improve existing services.

Table 4.16: Additional IPO services suggested by respondents

Service	Frequency	Percent (%)
Tuition fee discount	1	14.3
Better Accommodation/hostel facilities	2	28.6
Support students in rectifying MIS Web results and change of course	2	28.6
Organize Excursions	1	14.3
Organise regular meetings with international students to listen to complaints and suggestions.	1	14.3

(*Multiple responses received)

Source: Field data (2020)

4.6 Results from the Head of IPO

The results generated from the interviews with the HIPO are systematically presented according to the order of the questions asked in the interview

The interview with the HIPO was divided into sections. The semi-structured interview schedule included 26 questions. Questions 1 and 2 covered background information related to the HIPO who participated in the study. Questions 3 to 9 focused on services delivered to international

undergraduate students. Questions 11 to 13 elaborated on cooperation between the ISO and other university internal units. Questions 14 to 16 focused on the IPO support services and problems encountered during service delivery. Questions 17 and 18 commented on the policy document focusing on international students enrolled at the surveyed universities. Questions 19 to 21 highlighted the university support to the IPO to improve service delivery. Questions 22 to 24 focused on strategies used for effective dissemination of information services rendered to international students. Question 25 focused on new initiatives regarding information service delivery. One Head of IPO participated in the semi-structured interview.

4.7 Biographical data of respondent

This section presents the gender as well as the length of service of the head of the IPO who participated in the survey. For the purpose of anonymity and confidentiality, the respondents was assigned code; HIPO1. Responses of questions 1 and 2 were depicted in Table 4.17. Table 4.17 shows that HIPO1 had provided assistance to international students on a regular basis (very often) for six years.

Table 4.17: Biographical data

Interviewee	Gender	Length of service	Assistance Frequency
HIPO1	Female	Six years	Very often

Source: Field data (2020)

4.8 IPO services and Awareness

This section probed the interviewee on the services provided by the IPO to International students and the awareness of those services.

4.8.1 Services delivered to international undergraduate students

HIPO1 indicated that the administrative support services provided by the International Programmes office include pastoral services, airport pickup, airport drop off, orientation, facilitate students registration, students residence, assist with non-citizen card, organize cultural tours, campus and city tour, facilitate residence permit, volunteer placement and internship, visa extension.

4.8.2 Awareness of IPO services by international undergraduate students

HIPO1 was asked whether international undergraduate students were fully aware of the services provided by the IPO. The interviewee noted that “Yes, the students are fully aware of all the services provided by the IPO because they are provided with the necessary pre-departure information and other vital information concerning the services available to them through our official website as well as through student orientation and registration”

4.8.3 Service most utilized by international undergraduate students

Respondent was asked to highlight the services mostly utilised by international undergraduate students. The most utilized services provided by respondent included airport pickup, airport

drop off, attending orientation programs, registration, non-citizen card, applying for residence permit, applying for student residence and visa extension.

4.8.4 Underutilised services by students

HIPO1 was asked to indicate services that she considered to be underutilised by international students. HIPO1 indicated that, “I believe the services provided by the IPO are fully utilized by international students because all the services provided are necessary to enable the student to be enrolled in the university, therefore I don’t think there are any services underutilized by international students”.

4.8.5 How services are delivered

Respondent was asked to indicate how international students are assisted in satisfying their various social information needs regarding issues such as accommodation, residential permits, visa processing and extension etc. HIPO1 indicated that various administrative offices located at the International house have been charged to handle particular services. Thus, provision of information and services are performed by officers in those administrative offices. HIPO1 mentioned that “for example, when it comes to issues concerning visa processing and extension services, students are directed to the Immigration office which is located right in the International House, so processing is much faster”

4.9 Problems experienced in service delivery

Respondent was asked to highlight the main problems experienced by international undergraduate students in obtaining information from the international programmes office as well as the problems experienced by the IPO in rendering services.

HIPO1 opined that, students are readily provided with all the information they need, especially through questions and answers and other informative channels, thus, there are no major identified problems which have brought forth by students concerning service delivery. HIPO1 further indicated that with regards to the service delivery, there are no currently identified challenges reported by any administrative unit within the International house in the course of giving assistance to international undergraduate students.

4.9.1 Resolutions to problems when encountered

Respondent was further probed on how the IPO addresses problems should they be encountered during support services. HIPO1 indicated that “should any issue arise during support services, the complaints are reported to the appropriate administrative offices involved for possible solutions”.

4.10 Major communication channels used

Respondent was asked to provide the various channels used to communicate with international students who were using IPO services. HIPO1 revealed that apart from the IPO official website which is accessible to all international students, the IPO uses student email and various social media handles such as WhatsApp platform and Facebook as major channels of communication. The respondent was further probed to state some of the problems experienced by the IPO when sending messages across the stated channels of communication. HIPO1 indicated that, there were no identified problems experienced when communicating through the chosen channels.

4.11 Cooperation between IPO and other university internal units

Respondent was asked whether there were any form of cooperation between the IPO and other university internal units such as students counselling centre and other academic departmental units regarding international undergraduate students. HIPO1 indicated that, cooperation exist between IPO and other internal units in working to ensure the smooth integration of international students in the university.

4.11.1 Nature of cooperation between IPO and university internal units

Respondent was further probed to indicate the nature of cooperation that exist between the IPO and other university internal units. She noted that “during orientation programs, representatives from various university internal units are invited to provide vital information to international students regarding the services the units provide” HIPO indicated that through the orientation programmes, the students are exposed to various university services. For example, services offered by the campus clinic and library services.

4.12 University support for IPO services

Respondent was asked to indicate whether funds received from the university were sufficient for the IPO to satisfactorily deliver services to international undergraduate students. HIPO1 indicated that, in terms of funding, staffing, appropriate facilitation and other amenities, there was adequate support offered by the university, as a parent organization, towards ensuring that services are effectively and efficiently offered to international undergraduate students.

4.13 Policy documents that guide the services provided to international students

Respondent interviewed was asked whether the IPO/ university had a policy document that guided services provided to international postgraduate students. HIPO1 answered that, “Yes, we have a policy document related to services provided to international students”. Respondent was further probed on the relevance of the policy to the current needs of international students. HIPO1 indicated that, the policy was relevant for the current needs of international students because it indicates all the services rendered by the IPO as well as the offices in charge and frequently updated as and when major changes are made.

4.14 New initiatives regarding services offered to international students

HIPO1 was asked to discuss new initiatives concerning information services offered to international students. Respondent reported that “there were attempts to improve communication between the IPO and international students by regularly sending information to students via WhatsApp and other social media handles”.

4.15 Discussion

This section discusses the major findings of the study in relation to the objectives and existing literature. This study investigated the information seeking behaviour of international undergraduate students in the University of Ghana. The discussion of the major findings was carried out under the following headings:

- i. Information needs of international students
- ii. Information seeking behaviour of international students
- iii. Information sources used by international students
- iv. Problems experienced by international students
- v. Information service delivery

4.15.1 Demographic profile of surveyed students

In relation to Wilson's 1981 model of information behaviour applied in the study (section), the 'information user' as the first core variable is described in the context of this study as 'international students'. The international undergraduate students who participated in the survey were described generally based on gender, age range, student level, country of origin and home language.

The study surveyed a total number of 85 international students. In terms of the gender of surveyed students, more than half of the respondents, 45 (52.9%) were males and the remaining 40(47.1%) were females. In terms of age range of surveyed students, more than half of the respondents, 75 (88.2%) were less than 25 years, which is predominantly age bracket of most tertiary students and the remaining respondents,10 (11.8%) were in the age range of 25-35 years. In regard to student level, level 300 produced the highest group of respondents; 32 (37.6%), followed by level 200 with 30 (35.3%) respondents and Level 400 with 17(20.6%) respondents. Level 100 produced the least number 6(7.1%) of respondents.

In terms of country of origin, the study revealed that, the international undergraduate students who participated in the current study were all from the African continent with Nigeria emerging as the country with the largest group of surveyed students; 37(43.5%) followed by Togo with 12(14.1%) respondents.

Of the 6 home languages that were spoken by the surveyed students, English and French were the dominant home languages spoken by 76(89.4%) respondents from Nigeria, Togo, Ivory Coast, Mali, Sierra Leone, Cameroon, Liberia, DR Congo, Benin, Gambia, Burkina Faso and Zimbabwe Other languages spoken include Portuguese by 3(3.5%) respondents from Angola; Igbo and Yoruba by respondents from Nigeria and Swahili by respondents from Kenya.

4.15.2 Information needs of international undergraduate students

Thus in this section, the information needs of undergraduate international students (information user) is discussed in correlation to the second variable of Wilson's (1981) information behaviour model which highlights the information needs of the information user. The study revealed that surveyed respondents had both academic and personal information needs as pointed out by Hyldegård & Hertzum (2016), Majyambere (2013) and Tidwell & Hanassab (2007) in section 2.3.

4.15.2.1 Academic needs of surveyed respondents

The first objective of this study was to find out the information needs of international students. After gaining admission to the host university and going through general international clearance procedures, the next concern for students is to acquire information in regards to their

academic needs in order to achieve academic excellence and success in the new host university as indicated by Parsons (2000). The study revealed that majority of respondents, 64 (25.1%) indicated information regarding registration process as their most pressing academic need. This shows that academic registration constitutes a fundamental need related to the academic studies of international undergraduate students and affirms the study by Majyambere (2013) that the academic needs of the respondents were largely related to registration processes.

The international students who participate in the study further highlighted information relating to test and assignments, 54(21.2%) as well as information regarding lectures from 45 (17.6%) respondents. Other academic information needs were related to financing studies, indicated by 21(8.2%) respondents, information on research topic; 21(8.2%) respondents, English language proficiency by 19(7.5%) respondents, writing dissertation by 16(6.3%) respondents and information literacy skills by 15(5.9%) respondents. This results is therefore consistent with a number of empirical studies that have identified international students' academic information needs as those relating to their coursework, project works, faculty and program of study and lectures by Perez-Encinas & Rodriguez-Pomeda (2017); Olorunfemi (2018); Safahieh & Singh (2006) and Singh et al.

4.15.2.2 Personal needs of surveyed respondents

As Chung and Yoon (2015) suggest, international students have information needs that may relatively differ from that of local students in terms of social or personal, spiritual and emotional needs possibly because international students must adjust their lives and confront new challenges in a foreign country In relation to personal needs, the study revealed that that majority of respondents, 56 (24.3%) indicated information regarding Accommodation as the

most pressing personal need, followed by information relating to security issues; 49(21.3%) as well as information regarding travelling issues from 36 (15.7%) respondents. This affirms the study by Hyldegård & Hertzum (2016) and Majyambere (2013) that indicated that transportation, finance and housing were the most essential private information needs out of a list of ten by most of the respondents. Other personal needs revealed by the current study were related to Entertainment indicated by 31(13.5%) respondents, family issues by 23(10.0%) respondents, financial issues by 21(9.1%) respondents, and cultural issues by 14(6.1%) respondents.

4.15.3 Information seeking behaviour of international undergraduate students

Wilson's 1981 model suggests that information seeking behaviour results from the recognition of a need perceived by the user. Wilson (2006) described information seeking as a fundamental component of information behaviour patterns that involves different activities that people follow to seek, use, and share information within all possible perspectives.

The study revealed that international student's sought for information using both formal and informal information channels purposely to meet their academic and personal need which confirms Bhochhibhoya et al., (2017) assertion that during information seeking process, international students are usually motivated to reach out to more than one source for different categories of information. The four main channels used by the surveyed International undergraduate students in the study for academic purposes were the International Programmes office (IPO) by 66 (24.1%) respondents, assistance from colleagues by 45(16.4%) respondents, followed by using the internet by 42 (15.3%) respondents and consulting lecturers/ supervisors.

Other information sources consulted were: faculty offices by 23 (8.4%) respondents; computer services by 19 (6.9%) respondents; International students association by 16 (5.8%) respondents; Librarians by 12 (4.4%) respondents 14 (5.1%) respondents and students counselling centre by 6 (2.2) respondents. The results confirm the findings of Parsons' (2000) and Cooper & Hughes (2017) study which noted that undergraduate students, were found to rely more on their colleagues and friends, academic advisors, and professors for academic purposes. The results however, contradicts Abdoulaye's (2002) findings that indicates undergraduate students relied on various channels to seek for information except through reference librarians and their lecturers.

Apart from meeting their academic needs using formal and informal channels, the study also revealed that international students were likely to meet their personal needs using both formal and informal channels as well. The findings revealed that the two major sources consulted by respondents in meeting their personal need was the international programmes office by 31(23.5%) respondents and the internet by 30(22.7%) respondents. This was followed by consulting friends, indicated by 18(13.6%) respondents. Other sources consulted by respondents were parents by 13(9.8%) respondents, family members by 7(5.3%) respondents, university faculty by 5(3.8%) respondents and students financial office by 1(0.8%) respondent.

4.15.4 Information sources used by international students.

According to Wilson's 1981 model, in order to satisfy an information need, the user demands upon either formal systems (such as libraries, on-line services or information centres) or

informal information systems. The study revealed that respondents used both formal and informal sources to satisfy their academic and personal needs.

The formal sources used by respondents to satisfy their academic needs were mostly related to various library sources such as books, journals, online databases etc., which confirms studies by various researchers including Arokyamany & Ramesesh (2009); Abdoulaye (2002); Majyambere (2013), Singh et al. (2015) and Olurunfemi (2018). The study revealed that, the two most frequently used library resources by respondents were print materials by 40(18.2%) respondents and online databases by 40 (18.2%) respondents. The findings also correlate with Cooper and Hughes' (2017) survey of first-year international g students' transition to using a university library that revealed that, for assignments, the students resorted to e-books, online academic journals, Google, and Wikipedia. Thus reflecting the surveyed international students' preference for online sources. Singh et al. (2015) survey on the information needs and Information Seeking Behaviour of Foreign Students in the University of Delhi also indicate that most of the respondents use the internet as the main source of material for meeting their information needs, followed by the use of library resources such as books, electronic resources such as databases, e-journals, e-theses and dissertations,

Other sources revealed in the study include use of the library's printing and photocopy facility, the library catalogue by 26 (11.8%) respondents, discussion rooms by 23(10.5%) respondents, reference collection by 19 (8.6%) respondents, thesis/ dissertation by 15(6.8%) respondents, short loan library service by 12(5.5%) respondents and subject librarians by 11(5.0%) respondents.

The study further revealed that international students were more likely to consult informal sources to satisfy their personal needs which affirms Perley et al. (2007) observation that students use both print and online sources interchangeably for academic and personal purposes. The findings shows that the two major sources consulted by respondents in meeting their personal need was the international programmes office by 31(23.5%) respondents and the internet by 30(22.7%) respondents.

This was followed by consulting friends, indicated by 18(13.6%) respondents. Other sources consulted by respondents were parents by 13(9.8%) respondents, family members by 7(5.3%) respondents, university faculty by 5(3.8%) respondents and students financial office by 1(0.8%) respondent. 7(5.3%) respondent indicated to have no sources upon they consulted to satisfy their personal need.

4.15.5 Information seeking problems experienced by international students

In accordance to Safahieh and Singh's (2006) assertion that the challenges faced by most international students include adapting to new educational and social environment, financial pressures, lack of friends and language problem, the study revealed similar problems international students experience in relation to English Language proficiency and information sources.

In relation to English language proficiency, the study revealed that, a majority of 35 (51.5%) respondents indicated problems with speaking and communicating. 27(39.7%) reported problems of listening and understanding and 3 (4.4%) each reported problems with

reading and writing respectively. The findings are found to be in liaison with Jackson (2005) observation that most international students find themselves in the language minority when they travel and enrol in a new educational system in foreign country. The multiple responses received from the surveyed respondents also reflect Stalker's (1997) assertion that not all international students experience the same type of language challenge. While some respondents were confronted with dialect or accent difference leading to speaking and communication problems, another group of respondents may speak a language totally different from the official language used for communication in the host institution which leads to problems of listening and understanding. The findings in the current context however contradicts Conteh-Morgan (2003) view that many international students come from English-speaking countries or are proficient in spoken and written English as a second language, thus, language may not be the main barrier to academic success for all international students. This is based on the fact that, even though findings indicate that the most common home language among the surveyed respondents was English, 43(50.6%), some respondents still indicated English language proficiency as a problem in the host university which undoubtedly affects their academic and social relations.

In relation to the information sources used for academic and personal purposes, a number of respondents reported major problems relating to consulting some academic sources such as librarians, lecturers/supervisors, colleagues, the SRC, Internet use. The study revealed that with problems relating to librarians, one respondent mentioned problems experienced when consulting academic librarians, one respondent mentioned the unapproachable nature of librarians.

In consulting lecturers/supervisors, eight respondents indicated problems experienced when consulting lecturers/supervisors. Of the 8 respondents, 4 (50%) mentioned the problem of unavailability. The remaining 4(50%) mentioned problems relating to teaching style of lecturers, not understanding what was being taught, lateness by lecturers and not responding to complaints.

In consulting colleagues, ten respondents mentioned problems experienced when consulting colleagues/friends to meet their academic information needs. Of the 10 respondents, 9(90%) mentioned provision of wrong information as a major problem while 1(10%) respondent mentioned colleagues being unapproachable as another problem.

The study further revealed that six respondents mentioned problems experienced when consulting the SRC to meet academic information needs. Of the 6 respondents, 1(16.7%) mentioned an underrepresentation of international students in the SRC as a problem. The remaining 5(83.3%) mentioned complaints not being responded to as a problem.

In relation to internet use, fourteen respondents mentioned problems experienced when using Internet facilities to satisfy their academic information needs. Of the 14 respondents, 8(57.1%) mentioned the main problem of poor internet connectivity around campus. 6(42.9%) others mentioned the problem of inaccurate search results from the internet. The findings further strengthen observations made by Hughes (2012) that international students likely to be faced with accessibility challenges in their new academic environment. Accessibility challenges being described as those relating to technical difficulties in accessing the university system, for

example the library system or for identifying databases with full-text articles due slow internet connection or hardware failure.

In relation to the problems experienced when using library, the study revealed that, respondents reported various problems with using print resources as well as electronic resources. With print resources such as Books, 2(40%) reported issues of some books being outdated and having limited copies while in relation to printing/photocopy, issues relating to cost and clarity/visibility were reported by 2 respondents. The findings attest to a similar study by Singh et al. (2015) which found that, respondents were faced with different types of challenges while meeting their information needs. 59 (67.04%) of the respondents reported that cause for poor use of the library was because the library had old, outdated materials.

In relation to electronic resources, problems with OPAC were reported by 2(100%) respondents as log in difficulty and inadequate knowledge on its operation. Similar reports related to accessibility, inaccurate search results, broad search findings, were associated with online databases 6(100%), e-books 4(80%) and e-journals, 3(75%). These findings further strengthen evidence from Singh et al. (2015) study which revealed that female respondents reported that they had challenges in using the library catalogue (OPAC) because they had less knowledge of how to use it and were also unable to evaluate the information retrieved. The findings also affirm Hughes' (2012) assertion that one of the problems international students are likely to face is information overflow arising from lengthy results list offered by online tools as well as difficulty in finding the suitable resource from which to retrieve information.

4.15.6 The International Programmes Office and information service delivery

The study revealed a strong relation between international students and the International programmes office. This, the study revealed was as a result of the compulsory requirement for every international student to interact with the office in order to receive support services such visa processing, airport pickup and drop off, international clearance etc.

4.15.6.1 Awareness of IPO services

The study sought to determine if international students were aware of the IPO services. It was revealed that , 44(51.8) indicated that they had knowledge of all the services provided by the IPO, 17(20.0%) respondents indicated that they had no knowledge of the services offered by the IPO while 24(28.2%) respondents indicated that they were not sure if they were aware of all the services provided by the IPO.

HIPO1 highlighted some of the channels used by the IPO to inform international students about their available services. These included the IPO website, including the university websites, student emails, and various social media handles such as WhatsApp platform and Facebook. HIPO1 also indicated that, before students were enrolled, they were provided with the necessary pre-departure information and other vital information concerning the services available to them on campus, for example, library services and services offered by the school clinic.

4.15.6.2 Usefulness of IPO services

In relation to usefulness of some of the IPO services, multiple responses received indicated that majority of respondents; 84(98.8) rated the IPO visa processing and extension as ‘useful’ followed by international clearance and medical aid cover which 82(96.4%) indicated as ‘useful’ respectively. 3(3.5%) respondents however indicated that no information was provided about medical aid cover.

HIPO1 highlighted the most utilised/ useful services to international undergraduate students as those relating to airport pickup, airport drop off, attending orientation programs, registration, non-citizen card, applying for residence permit, applying for student residence and visa extension.

In relation to additional services, 1(14.3%) respondent indicated the need for excursion services to be provided by the IPO.

4.15.6.3 Cooperation of the IPO with other university internal units

HIPO1 indicated that almost all university internal units work hand in hand with the IPO to serve all international students. Regarding the nature of cooperation between IPO and other internal units, HISO1 indicated that during orientation programs, representatives from various university internal units were invited to provide vital information to international students on other services offered by various departments and the general rules and procedures of the university. It was discussed that orientation played a vital role in introducing all services providers on campus to international students such as the teaching staff for academic purposes, the library for academic materials and campus clinic.

4.15.6.4 Policy document related to services for international students

It was revealed that the IPO had a specific policy document related to services offered to international students and was relevant to the current needs of international students as it indicates the roles and responsibilities regarding the service delivery as well as improvements in terms of the service.

4.15.6.5 University support of IPO services

In relation to the university support as a parent organization, it was revealed that, the current university support was sufficient in areas such as funding resources, sufficient staff members, and appropriate amenities/facilities

4.15.6.6 Communication channels used by IPO

The three main communications channels used by IPO was listed as the IPO official website, student email and various social media handles such as WhatsApp platform and Facebook. HIPO1 indicated that, there were no identified problems experienced when communicating through the chosen channels.

4.15.6.7 New initiatives to promote information services

HIPO1 indicated that there were attempts to improve communication between the IPO and international students by regularly sending information to students via WhatsApp and other social media handles as the use of these channels have had positive results in terms of communication with international students in order to keep them updated.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter presents a summary of the findings of the study, conclusions as well as recommendations that arose from the study that investigated the information seeking behaviour of International undergraduate students in the University of Ghana. The findings are summarized in line with the objectives of the study. The summary of the major findings was carried out under the following headings:

- i. Information needs of international undergraduate students
- ii. Information seeking behaviour of international students
- iii. Sources used by international undergraduate students
- iv. Information seeking Problems experienced by international students
- v. Information service delivery

5.1 Information needs of international undergraduate students

It is important to note that all international undergraduate students who participated in the study were from African countries (except Ghana). The study revealed that surveyed international undergraduate students had both academic and personal information needs while studying at the host university. The academic information needs of surveyed students involved information services related to registration process 64(25.1%), financing studies 21(8.2%), English language proficiency 19(7.5%), research topic 21 (8.2%), information literacy skills 15(5.9%), writing dissertation 16(6.3%), lectures 45(17.6%), test and assignments 54(21.2). The findings

thus show information regarding registration process as the most pressing academic need by international students.

The personal needs of the surveyed respondents were related to accommodation 56(24.3%), security 49(21.3%), travelling 36(15.7%), entertainment 31(13.5%), Family 23(10.0%), financial issues 21(9.1%) and cultural concerns 14(6.1%). The findings thus show information regarding accommodation as the most pressing academic need by international students while health issues was recorded as the least pressing need of respondents.

5.2 Information seeking behaviour of international students

The study revealed that academic and personal information needs were responded to through both formal and informal channels. The four main information sources consulted by respondents in meeting their academic needs were identified as: consulting the International Programmes office 66 (24.1%), assistance from colleagues 45(16.4%), using the internet 42 (15.3%) respondents and consulting lecturers/ supervisors 31(11.3%).

Other information sources consulted were: faculty offices 23 (8.4%); computer services 19 (6.9%); International students association 16 (5.8%); Librarians 14 (5.1%); Students representative council 12 (4.4%) and students counselling centre 6 (2.2%).

The study further reveals that the two major sources consulted by respondents in meeting their personal need was the international programmes office 31(23.5%) and the internet 30(22.7%).

Other sources identified include: consulting friends 18(13.6%), parents 13(9.8%), family members 7(5.3%), university faculty 5(3.8%) and students financial office 1(0.8%).

The study revealed that although some sources of information were particularly consulted for either academic needs or personal needs, other sources were generally used for both academic

and personal information needs and these include: the Internet, colleagues/friends and the international programmes office.

5.3 Sources used by international undergraduate students

The study found that formal sources consulted in the course of study were often related to library resources. The findings shows that the two most frequently used library resources by respondents were print materials 40(18.2%) and online databases 40 (18.2%). Thus indicating that respondents used both print and electronic resources to satisfy their academic needs. Other resources used were: the library catalogue 26 (11.8%), discussion rooms 23(10.5%) reference collection by 19 (8.6%), thesis/ dissertation 15(6.8%), short loan library service 12(5.5%) and subject librarians 11(5.0%).

The study also found that the two major sources consulted by respondents in meeting their personal need was the international programmes office 31(23.5%) and the internet 30(22.7%)

Other sources used were; consulting friends, 18(13.6%), parents by 13(9.8%) respondents, family members 7(5.3%) and students financial office 1(0.8%).

5.4 Information seeking Problems experienced by international students

The study highlighted some problems that were found to hinder the information seeking behaviour of international students at the university. These challenges involved issues relating to both academic tasks and personal matters. It was noted that lack of English proficiency created a barrier for effective communicating for international students. The study revealed that majority 35 (51.5%) of surveyed students indicated problems with speaking and

communicating. 27(39.7%) reported problems of listening and understanding and 3 (4.4%) each reported problems with reading and writing respectively.

In terms of problems encountered with the use of the library it was found that library resources, mainly printed books, were outdated and had limited copies 2(40%). In terms of Internet use, 8(57.1%) mentioned the main problem of poor internet connectivity which makes searching for academic resources difficult while 6(42.9%) mentioned the problem of inaccurate search results from the internet. In addition, respondent 2(100%) experienced difficulties in operating and logging into the OPAC.

Other problems were based on lack of accommodation 5(100%) at the university residences, unavailability of lecturer/supervisor 4 (50%), teaching style of lecturers, not understanding what was being taught, lateness by lecturers and not responding to complaints 4(50%), provision of wrong information by colleagues/friends 9(90%), colleagues being unapproachable 1(10%), underrepresentation of international students in the SRC 1(16.7%) and complaints not being responded by the SRC 5(83.3%).

5.5 Information service delivery

It is important to note that the IPO is a university unit that is basically in charge of attending to the needs of international students studying at the university. The study revealed that international student were conditionally required to obtain several support services from the IPO and these include pastoral services, airport pickup, airport drop off, orientation, facilitate students registration, students residence, assist with non-citizen card, organize cultural tours, campus and city tour, facilitate residence permit, volunteer placement and internship, visa extension(section, 4.5.1). The study also revealed that the IPO does not work in isolation but rather collaborates with various internal units during orientation programs to abreast student

on the services provided by other academic units in order to meet the information needs of international students

The study also revealed the major communication channels used to communicate with international students who were using IPO services. These were indicated as the IPO website, student email and various social media handles such as WhatsApp platform and Facebook

In relation to service delivery improvement, suggestions provided by survey students included Tuition fee discount 1(14.3%), Better Accommodation/hostel facilities 2(28.6%), Supporting students in rectifying MIS Web results and change of course 2(28.6%), Organising regular meetings with international students to listen to complaints and suggestions 1(14.3) and organizing excursions.

5.6 Conclusion

This study presented the summary of findings based on the objectives of the study (sections 1.3 and 1.5) and also linked the findings to related literature. Wilson's (1981) model provided the theoretical framework for the study and also guided the discussion of findings. This chapter concludes by highlighting that the major objectives of the research, which was an investigation into the information seeking behaviour and information needs of undergraduate students in the university of Ghana was achieved. The study revealed different academic and personal information needs of the international undergraduate student while studying in Ghana. The study revealed the use of library print and electronic resources for learning and research purposes. The information seeking behaviour of the surveyed students involved the use of formal and informal channels for both academic and personal purposes. The Internet, the IPO and colleagues/friends were the main channels through which surveyed student sought for

information. It was found that limited English language proficiency often created a barrier for international students in communicating. The study also noted that a policy document regarding services for international students had been efficiently provided to formalize the role and responsibilities of the service providers (IPO) and international students.

5.7 Recommendations

The study investigated the information seeking behaviour of international undergraduate students in the University of Ghana. A total of 85 international undergraduate students successfully participated in the study. Based on the findings, the study makes the following recommendations:

1. The study highlighted that access to information regarding accommodation is a fundamental challenge faced by some international undergraduate students. The study recommends that the university provides adequate information on accommodational facilities available to international students enrolled at the university.
2. The study discussed the vital role of collaboration between the IPO and other university internal units. The study recommends that the university library should collaborate more often with IPO in creating awareness about the vast resources and services the university library provides as well as offering library training sessions on the effective use of resources available in the library.
3. The study revealed an inadequate communication feedback system between international students and faculty offices. The study recommends that administrators in

the Faculty Office should make timely and follow-up enquiries regarding correspondence sent by international students to their offices.

4. The study also revealed an underrepresentation of international students in the Student Representative Council. The study recommends a fair representation of international students in the SRC to enhance cultural exchange and also to find solutions to the various needs of international students throughout their stay on campus.

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APPENDICES

Appendix 1: Questionnaire for International students

Covering letter for the questionnaire for collecting information from international students on **"Information seeking behaviour of international undergraduate students in the University of Ghana"**.

Dear Respondent.

I am seeking your help in a survey to determine the information needs and information seeking behaviour of international students in the University of Ghana. The findings are expected to assist the university to improve information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at the University of Ghana.

The results of this questionnaire are essential to the completion of my M.A. Information Studies degree. I will be extremely grateful if you could assist me in this endeavour by answering the following questions. It will take you approximately 10 minutes to complete the questionnaire. Your responses will be kept anonymous and highly confidential and used solely for the purposes of this study.

Thank you in advance for your time.

Rebecca Korkor Tetteh

Email: rktetteh003@st.ug.edu

Questionnaire for collecting information from international students on "**Information Seeking Behaviour of international students in the University of Ghana**".

Instructions for completing the questionnaire

a. Unless otherwise instructed, please place a tick (✓) or a cross (×) in the space provided.

b. Where you are required to answer in your own words, please use the space(s) provided.

Section 1- Background information of international students

1. Gender

- a. Male [] b. Female []

2. Age

- a. less than 25 []
b. 25-35 []
c. 36-45 []
d. 46 and above []

3. What is your country of origin?

4. What is your level of study?

- a. Level 100 [] b. Level 200[] c. Level 300[] d. Level 400 []

5. Nature of study

- a. Full-time student [] b. Part-time student []

6. Did you have your previous education in Ghana?

- a. Yes [] b. No []

(If No, please provide the name of the school and the country)

.....

7. Where are you staying while you are at your present university?

- a. Off-campus [] b. University residence []

8. If you stay off-campus, did you apply for university residence?

a. Yes [] b. No [] (If No, please go to Q10)

9. If yes, please specify the reason(s) why you did not get university accommodation.

.....

.....

.....

10. What is your home official language?

.....

11. What other languages do you speak apart from your home language?

.....

12. Given that English is the official language at your present university did/do you encounter any language problems with your research or studies at this institution?

a. Yes [] b. No [] (If No, please go to Q15)

13. If yes, could you briefly explain the type of problem(s) you encountered?

a. Reading []

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b. Writing []

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c. Speaking/Communicating []

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d. Listening/Understanding []

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e. Other [] (please specify)

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Section 2- Information needs and information seeking behaviour of international students

While at university there are essentially two types of needs – one related to academic studies (for example, registration process, lectures, assignments, research project, etc.); and the other related to personal issues (such as family, accommodation, health, recreational activities, etc.) The purpose of this section is to find out from you what important situation(s) you have experienced and what kind of information you have needed to find, learn or know in these situations. For example, you may have needed to make a decision, find an answer to a question, solve a problem or try to understand something.

A. An information seeking situation(s) in relation to your academic studies

15. Which of the following situations required you to find information related to your academic studies at your present university? (Please tick all those that apply)

- a. Registration process []
- b. Financing studies []
- c. English language []
- d. Research topic []
- e. Research resources []
- f. Information literacy skills []
- g. Writing theses/dissertations []
- h. Issues around lectures []
- j. Tests and assignments []
- k. Other (please specify)

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16. What sources did you consult to find information to resolve the academic needs? (If applicable you may tick more than one source of information)

- a. International Student Office (ISO) []
- b. School/Faculty Office []
- c. Librarians []
- d. Lecturers/Supervisors []
- e. Colleagues []
- f. Student Counselling Centre []
- g. International Student Associations []
- h. Student Representative Council (SRC) []
- i. Internet use []
- j. Computer services []
- k. Others (please specify)

.....
.....

17. Were you successful when you consulted the following sources?

	a. Yes	b. No	c. Not Applicable
a. International Student Office (ISO)	☐	☐	☐
b. School/Faculty Office	☐	☐	☐
c. Librarians	☐	☐	☐
d. Lecturers/Supervisors	☐	☐	☐
e. Colleagues	☐	☐	☐
f. Student Counselling Centre	☐	☐	☐
g. International Student Associations	☐	☐	☐
h. Student Representative Council (SRC)	☐	☐	☐
i. Internet use	☐	☐	☐
j. Computer services (UGCS)	☐	☐	☐
k. Others (please specify)			
.....	☐	☐	☐
.....	☐	☐	☐

18. What problems did you encounter when consulting the above sources? (Indicate not applicable (NA) if you have not encountered any problems)

Sources	Problems encountered
International Student office (ISO)	
School/Faculty Office	
Librarians	
Lecturers/Supervisors	
Colleagues	
Student counselling Centre	
International Student Association	
Student Representative council (SRC)	
Internet use	
Computer services	
Others (please specify)	

19. Do you use library resources for your studies or research?

- a. Yes [] b. No [] (If No, please go to Q21)

20. If yes, please tick all those that apply

- a. Library catalogue (OPAC) []
- b. Online databases []
- c. Print materials (books and journals) []
- d. Theses and dissertations []
- e. Reference collection []
- f. Subject librarians []
- g. Short loan/Academic reserves []
- h. Discussion rooms (availability) []
- i. Printing and photocopy facilities []
- j. Others (please specify) []

..... []

..... []

21. How did you become aware of these library resources? (Please tick all those that apply)

- a. Library orientation []
- b. Library guides []
- c. Library websites []
- d. Subject librarians []
- e. Lecturers/Supervisors []
- f. Colleagues []
- g. Others (please specify)

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BB-11 6.1 1 6.11 1 1 6 1 11 2

22. How useful are the following print resources for your studies?

Print resources	Very useful	Neutral	Not very useful	Don't know what it is
Books				
Reference materials (dictionaries/encyclopaedias)				
Journals				
Indexes and abstracts				
Theses/dissertations				

Others (please specify)				
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23. How useful are the following electronic resources for your studies?

Electronic resources	Very useful	Neutral	Not very useful	Don't know what it is
Library website				
Library catalogue (OPAC)				
E-books				
E-journals				
Online databases				
Others (please specify)				

24. What problems have you encountered when using these library resources? (Indicate not applicable (NA) if you have not encountered any problems)

Library resources	Problems encountered
Library catalogue (OPAC)	
Online databases	
E-books	
E-journals	
Print materials (books and journals)	
Theses and dissertations	
Reference collection	
Subject librarian	
Short loan/Academic reserves	
Discussion rooms (accessibility and furniture)	
Printing and photography facilities	

B. An information seeking situation(s) in relation to personal/social needs

25. Which of the following situations required you to find information related to your personal needs/issues? (Please tick all those that apply)

- a. Accommodation []
- b. Family issues []
- c. Health issues []
- d. Cultural issues []
- e. Financial issues []

30. If you indicated any services which were not useful to you in Q21 above, please explain why they were not useful?

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31. Are there any other services the ISO should be providing (but is not?) Please list the services below.

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32. Do you think the services for international students can/ should be improved at the university?

a. Yes []

b. No []

(If yes, please explain)

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33. Any other comments? Please elaborate.

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Thank you very much for your time.

Appendix 2: Interview guide for HIPO

Covering letter for the Interview guide for collecting information from HIPO on **"Information seeking behaviour of international undergraduate students in the University of Ghana"**.

I am seeking your help in a survey to determine the information needs and information seeking behaviour of international students in the University of Ghana. The findings are expected to assist the university to improve information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at the University of Ghana.

I will be extremely grateful if you could assist me in this endeavour and allow me to interview you as part of my research. The interview will take approximately 15 to 20 minutes. Your responses will be kept anonymous and highly confidential and used solely for the purposes of this study.

Thank you in advance for your time.

Interview guide for collecting information from HIPO on "**Information Seeking Behaviour of international students in the University of Ghana**".

1. How long have you been working for the International Programmes Office at the University of Ghana?

.....

2. How often do you assist international postgraduate students?

a. Very often b. Often [] c. Sometimes [] d. Rarely [] e. Never []

3. What services are provided by the International Programmes Office?

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4. Are the international undergraduate students aware of some or all of these services?

a. Yes [] b. No []

5. If yes, how do you make international undergraduate students aware of the services offered by the International Programmes Office?

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6. If No, what do you think are the reasons for (some) international postgraduate students not being aware of the services?

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7. Which services are mostly utilised by international undergraduate students?

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8. Which services do you think are under-utilised by international undergraduate students?

[illegible]

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[illegible][illegible]

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16. In your opinion is your office sufficiently funded by the parent organisation to deliver an efficient service to international undergraduate students? Please elaborate.

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17. In your opinion is your office sufficiently staffed to deliver an efficient service to international undergraduate students? Please elaborate.

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18. Does your office have appropriate amenities/facilities (e.g. building space and office equipment, etc.) to deliver an efficient service to international undergraduate students? Please elaborate.

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19. How do you provide information to international undergraduate students who are using your services?

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20. What problems do you encounter when you provide information to international undergraduate students?

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21. How else do you promote your information services to international undergraduate students?

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22. Are there any new initiatives regarding information services for international students? Please elaborate.

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23. Is there anything else you would like to comment on regarding the information services
you offer to international postgraduate students?

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Thank you very much for your time.