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RESEARCHING LECTURERS' INFORMATION BEHAVIOR AT UNIVERSITIES IN HOCHIMINH CITY

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INTRODUCTION

1. Rationale

The quality of university education bases on not only curriculum but quality of lecturers. The competencies of lecturers show capacities and qualifications, that include professional capacity, teaching capacity, capacity of scientific research, community service, professional ethics, experiences and other skills. Besides, each lecturer should recognize about their role and responsibility in university, as well as enhance their capacity in other to satisfy the university' requirements.

There are many ways for lecturers to enhance their capacity, learn, research and serve community, etc... Among those activities, activities of seeking information are as one of important activities to improve quality of the lecturers' teaching, research. Moreover, the main role of lecturers is teaching, they are also responsible for participating research, applying new knowledge into practical activities, providing guides and directions for students who take part in those activities. In order to fulfill their mission, it requires for lecturers to interact with many information resources, various kinds of information, in which, academic library is a very effective and useful information resource. For lecturers, academic library have efficient and systematic storage of knowledge about academic fields, sciences to satisfy with teaching and research activities. It is also a place where provide lecturers with new and updated information, help them update their lectures. Academic library also help lecturers to improve teaching methods, self-learning and creative-thinking ability of students.

It could be clearly seen that, behavior of determining information need, information seeking behavior as well as information using and sharing behavior is influenced by various factors. Specially, in context of information technology, users' information behavior in general, and lecturers' information in particularly has prominent characteristics related to the changes of information technology, or their psychology is also related to their information seeking activities. In field of library and information science, researching information behavior is basically as the research of the personal behaviors in need, seek, receive and use information. Those behaviors are in the affecting context of psychological factors, personal characteristics and social environment.

Based on results of observations about the lecturers' information behavior, lecturers have tendencies of choosing various information resources such as their personal collections, colleagues, etc... Many lecturers have not considered the academic library as useful information

resources and have not spent much time for using library. It is shown that the role of library as well as academic library does not play important role in providing information with lecturers and impacting lecturers' information behavior.

Therefore, determining characteristics of lecturers' information behavior and proposing solutions for enhancing lecturers' information behavior is the academic libraries' mission. This requires academic librarian understand how the characteristics of lecturers are, what information-need-determining behavior and expectations of lecturers are, when information seeking and using behavior happen, or what factors impacting on information behavior are. Then, the academic library could recognize, forecast the tendencies of lecturers' information behavior, provide information products and services with lecturers as well as conduct suitable solutions and support lecturers' information behavior. Besides, this also helps academic library develop strategy of marketing library. Hochiminh city is area where has many universities, in which have academic libraries and information centres. These are basements for academic libraries to propose solutions in enhancing the effectiveness of library as well as implementing the lecturers' information behavior at universities in Hochiminh city and Vietnam.

With the above reasons, providing the overall view of lecturers' information behavior at universities in Hochiminh city and suggesting the suitable solutions to enhance their information behavior is very necessary in the context today. Therefore, "*Researching lecturers' information behavior at universities in Hochiminh city*" is essential issue for the doctoral thesis.

2. Literature review

Information behavior is a matter of research in many fields such as psychology, information science, etc. The research on information behavior of domestic and foreign users has the following characteristics:

- There are many approaches to information behavior including systematic approach, integrated approach and action approach. Each approach associated with different theories and models of information behavior. Some theories and models also show inheritance, however, this inheritance is not really clear. Similarly, many different definitions of information behavior derived from the viewpoints of information science, behavioral sciences, library science, etc. The study has clarified some basic concepts related to information behavior which provided the theoretical foundations for further studies, including theoretical foundations of lecturers' information. However, along with selecting and inheriting

theoretical foundations, the systematization, unification and finishing of the theoretical basis for lecturers' information behavior is essential.

- Factors influencing information behavior: There are a number of factors that influence the information behavior of the users, including personal, social, cultural and psychological factors. The overview of these works also contributed to clarify the relationship between the influencing factors for lecturers' information behavior. Therefore, when analyzing these influencing factors for lecturers' information behavior, it requires special attention to specific factors related to the role of lecturers in the environment of the university which considered as the context of forming the lecturers' information behavior.

- About information behavior models, the models are formed from different perspectives such as behavioral models, cognitive-emotional models, cognitive-behavioral models, integrated information behavior models and other models. Each model has certain advantages and disadvantages, built into a specific context which illustrated the most common manifestation of users' information behavior including defining the need for information, seek, use, and sharing. Based on the model analysis and practical research, the model of lecturers' information behavior would be constructed at the universities in Hochiminh city.

- About the information users: The information user's researches provide a detailed review of the information users in specific contexts. Some similarities in previous studies lecturers' information behavior may contribute to provide a comparative view of lecturers' information behavior at the universities in Ho Chi Minh city. Some methods of information behavior research in these studies can be applied in researching lecturers' information behavior in Hochiminh city.

3. Problem statements

3.1. Research questions

RQ1. What are characteristics of lecturers' information behavior and what are factors impacting on their information behavior?

RQ2. What should lecturers, universities, academic libraries do to enhance the lecturers' information behavior at universities in Hochiminh city?

3.2. Scientific hypothesis

Information behavior of lecturers at universities in Hochiminh city is influenced by some different factors and their information behavior are not perfect because of many various causes. It should build a model of lecturers' information behavior. Based on that model, it should have some

solutions for realization of the model to enhance lecturers' information behavior at universities in Hochiminh city.

4. Aims and objectives of the study

4.1. Aims of the study

The aims of research lecturers' information behavior is to propose solutions of enhancing lecturers' information behavior at universities in Hochiminh city.

4.2. Objectives of the study

- Systematizing the theory of information behavior, information behavior of lecturers

- Surveying lecturers' information behavior at universities in Hochiminh city; Analyzing the factors impacting the lecturers' information behavior, recognizing characteristics of lecturers' information behavior at universities in Hochiminh city.

- Proposing the solutions for enhancing the lecturers' information behavior at universities in Hochiminh city.

5. Research subjects and scope of the study

5.1. Research subjects

Information behavior of lecturers at universities in Hochiminh city

5.2. Scope of the study

Researching lecturers' information behavior at universities in Hochiminh city (including six universities in Hochiminh city that present for six groups of discipline) from 2014 to 2017.

6. Research methodology

Methodology: Methodology of the thesis is combination between research literature review and scientific work about users' information and lecturers. Besides, the thesis also uses method practical research through social investigation which determine the characteristics of lecturers' information behavior and proposes the solutions to enhance lecturers' information behavior.

Research methods: document analysis, observations, experiments, social surveys by questionnaire, interviews, statistical analysis, modeling.

7. Value of the study

7.1. Scientific significance

- Make clearly contribution about theory of users' information behavior such as concepts of information behavior, model of information behavior, factors impacting information behavior

- Theory of lectures' information behavior would be applied for considering, identifying and evaluating overall the characteristics of lecturers' information behavior at universities in Hochiminh city.

7.2. Practical significance

- Making contribution to the basement for university managers in implementing solutions to improve the lecturers' information behavior.

- This is reference for learning and teaching library and information science at universities.

8. Structure of the thesis

In addition to the introduction, conclusions, references, appendices, the thesis is arranged into three chapters:

Chapter 1: Theoretical basis of lecturers' information behavior

Chapter 2: Information behavior of lecturers at universities in Hochiminh city

Chapter 3: Solutions for implementing lecturers' information behavior at universities in Hochiminh city

Chapter 1
THEORICAL FRAMEWORK OF LECTURER'S INFORMATION BEHAVIOR

1.1. Basic concepts of information behavior

According to the Vietnamese Dictionary, "Behavior is total of reactions, the way of behaving of some one who expresses in a particular situation". Behavior is a social cause which is formed in the their living and social communication, including internal states, biological exchange processes, or similar states. In psychology, behavior is human's reactions when there are internal stimuli (psychological) or external (context, environmental). These reactions depend on how the person perceives, demonstrates and acts to fit this situation or a certain situation. That behavior which is called conscious behavior. Human behavior depends on the purpose and nature of behavior, as well as the way behavior expressed.

Information behavior is an issue that studied in many areas such as cognitive psychology, organizational behavior, communication, philosophy, anthropology, biology and philosophy, including library and information science. *Information behavior is totality of activities that information users do actively to satisfy their own information needs. Information behavior includes the main activities: (1) identifying information needs, (2) seeking information, (3) using and sharing information.*

- Behavior of determining information need is a set of activities of information users who conduct proactively. This behavior which formed from a specific context that related to what information and how type as well as level of information which information users need. The behavior of identifying information needs expressed through the act of determining the scope of contents, forms, characteristics of information need and expressing their information need by specific requests to satisfy one or more purposes.

- Information seeking behavior is a set of proactive activities of information users conduct that related to the process of identifying and evaluating information sources; Develop information search strategy, assessing and selecting information to satisfy identified information needs.

- Fair use of information is a set of activities related to evaluate and select information to do certain purposes; and fair sharing of information is a set of activities that distribute, disseminate and provide information to people or communities.

1.2. Model of information behavior

Some theoretical research and models research of information behavior focus on the components of the information behavior model, the behavior that determines the needs of the user; information seeking behavior; information using and sharing. These factors are closely related. Each information behavior model shows different approaches including behavioral attitudes, cognitive-behavioral attitudes, cognitive-affective attitudes, and integrative perspectives.

1.2.1. Behavioral models

From a behavioral approach, Ellis's model (1993) has eight main stages based on studies of social scientists, physicists, chemists, engineers, and researchers in the factory. Then, Meho and Tibbo (2003) also modified the model with adjustable flexibility in the stages of the Ellis model, covering four broad phases: search, access, processing, and termination.

1.2.2. Cognitive - Emotional models

Theoretical model of information seeking of Dervin (Dervin's Sense-Making) (1983) includes three elements (1) Context which forms information need, users' information need (2) The gap which determines the differences between theoretical context and expectation context (3) Output is the results of making senses. This model represents the relationship between information need and satisfaction with information need based on the information bridge. Kuhlthau also conducted the experimental study about information seeking behavior and then developed the general model of information seeking process (ISP).

1.2.3. Integrated model of information behavior

From an integrated perspective of approach, the authors have proposed and analyzed several models with different aspects of information behavior such as Wilson's model for information retrieval. and information behavior. T.D. Wilson (1999) presents a brief outline of the information-seeking model and other aspects of the information behavior. The author also points out the relationship between communication and information behavior with the process of searching information in general in the search system. In another study, the author presents the outlines of information search models and other aspects of information behavior, which illustrate the relationship between communication and general information and information search and information retrieval.

1.2.4. Other models

Savolainen (1995) focused on the cognitive process of information user to have information need through his interaction in personal context and social culture. Tuominen and Savolainen (1997) proposed the information behavior model based on analyzing communicative language in social context. To sum up, the first thing is that, model of information behavior is in various contexts, in which, focused on the active role of information user in that context. Secondly, the models of information behavior are built on the results of scholars, professionals in working environment. Thirdly, model of information behavior was analyzed much in research information behavior in foreign countries, while limitations of studies to conduct or apply of information behavior model in specific context of information users are not analyzed totally.

1.3. Factors impacting on lecturers' information behavior

1.3.1. Cultural factors of university

University is an organization and has an organizational culture or a university culture which having certain characteristics, influencing and guiding the behavior and conduct of all members, including lecturers. This group of factors affects directly on lecturers' information behavior, including (1) Objectives and development strategies of the university; (2) Conditions and working environment; (3) Tasks of teaching and scientific research of lecturers; and (4) Requirements to improve lecturers' qualifications.

1.3.2. Personal factors

Each lecturer has their own personal characteristics, affecting their information behavior at different levels, including (1) Lecturers' competencies which reflected in teaching capacity, scientific research

capacity and community service capacity; (2) Ability of using information and technology, foreign languages and (3) Gender and age.

1.3.3. Social factors

The group of social factors including (1) the role of lecturers affect directly the process of determining the needs of information, seeking, using and sharing information of lecturers, which there are three main roles includes as lecturers, researchers and service provider. In addition, (2) interpersonal factors affect the process of identifying information sources; and (3) Lecturers' leisure time also impacts greatly on the process of seeking, using and sharing information of lecturers.

1.3.4. Psychological factors

These psychological characteristics are closely to personal factors of each lecturers and also affect and govern the lecturer' information behavior. Lecturers' psychological factors include (1) Attitude and awareness of lecturers in teaching, researching and self-learning activities; (2) Lecturers' awareness of their information needs; (3) Characteristics of lecturers' traits of personality; (3) Lecturers' motivation for seeking information.

1.4. Requirements for lecturers' information behavior

1.4.1. The aims of proposing requirements for lecturers' information behavior

- The requirements for lecturers' information behaviors are crucial measurement to figure their information behavior, assess advantages, limitations and level of enhancing information behavior. These requirements also are set of standards for measuring lecturers' capacity of searching, using and sharing information in teaching, scientific research and self-study activities. Moreover, bases on these requirements, the university managers could assess lecturers' information behavior to devise measures to improve their information behavior.

1.4.2. The proposing base of requirements for lecturers' information behavior

The manifestations of lecturers' information behavior are perfect when it is satisfied specific requirements of identification information need, information seeking, using and sharing. Based on referring to the theory related to information literacy of information users in Vietnam and other coutries and from the results of preliminary research on information behaviors of lecturers, this thesis proposes the requirements of lecturers' information behavior.

1.4.3 Specific requirements for lecturers' information behavior

Identificating information need		Seeking information			Using and sharing information fairly	
		Determining, evaluating information sources	*Developing information seeking strategy*	*Evaluating, selecting information*	*Using information fairly*	*Sharing information fairly*
-Identify information problems -Determine the type of information	-Express confidently information needs with specific information requests	-Distinguish characteristics of information sources -Distinguish characteristics of different types of information or documents -Evaluate and select appropriate sources of information	-Understand how to organize information and how to search the information retrieval system -Develop information seeking strategy -Know how to make expressions with combining operators -Proficient using the information search engines -Evaluate results of informatin searching, adjust methods of searching information	-Browse the found information -Evaluate the relevance and completeness of the information found which compared to the request for information and select the most valuable information.	-Strictly comply with copyright and plagiarism issues; instructions, regulations when referencing, citing information -Proficient use of tools and software to create reference lists and quotations	-Evaluate the advantages and limitations of channels for sharing information -Effectively use appropriate channels for sharing information

1.5. Characteristics of lecturers at universities in Hochiminh city

1.5.1. Classify information user as lecturers

Lecturers are high skilled scientific information users who do different roles. These roles associated with the formation of the characteristics of each lecturer including group of lecturers who conduct teaching activities and research activities, groups of lecturers who are leaders and managers.

1.5.2. Characteristics of information users who are lecturers at universities in Ho Chi Minh city

According to statistics from the Ministry of Education and Training, Vietnam, by the end of 2016-2017, there are 235 universities, academies (including 170 public universities, 60 private ones, 5 universities where have foreign capital, excluding for security and defense sector). Total of lecturers is 72,792 people, some lecturers who teach at public universities is 57,634 people and lecturers who teach non-public schools is 15,158. Total number of lecturers have doctoral degree is 16,514 and master's degree is 43,127, specialist level I and II is 523 people, undergraduate level is 12,519 people, another level is 109 people. In particular, Hochiminh is a city where has many multi-disciplinary universities and colleges (46 public universities and non-public ones). Total number of lecturers in is 17.189 people and 12,370 people in public universities.

The survey results show that 100% of lecturers have a minimum qualification of bachelor's degree. Some lecturers who have the master degree takes the highest rate. In terms of each field, lecturers who teach and research the social sciences take account for the highest proportion while the medical and pharmaceutical sector takes the lowest. In terms of gender of the lecturers, most lecturers, especially in social sciences and humanities. Lecturers have a large disparity between the group of lecturers aged 45 and over accounts for the low number, while most young lecturers (aged 20-44) make up the most.

Summary of Chapter 1

Practical and theoretical research of information behavior in the world and Vietnam for many decades have shown the role of researching users' information behavior, including lecturers who work in universities.

1. The concept of HVTT formed in the 1960s which originated from the concept of "information need and usage". The lecturers' information behavior associated with determining of information needs, behavior of seeking information, behavior of using and sharing in teaching, researching and self-learning activities.

2. Information behavior associated with the different contexts which expressed at information behavior models which studied from behavioral, cognitive - behavior, cognitive and integrated perspectives.

3. Information behavior of lecturers are influenced by many groups of factors. For lecturers, their information behavior are only perfect when

satisfied with the requirements of behavior of determining information need, information seeking behavior and information using and sharing.

4. Identifying the characteristics of lecturers' information behavior is necessary for academic libraries. This helps the libraries improving the quality of library and information. Besides, the results of research information behavior also help university managers to develop the strategies of enhancing the capacity of lecturers.

Chapter 2
INFORMATION BEHAVIOR OF LECTURERS
AT UNIVERSITIES IN HOCHIMINH CITY

2.1. Information need determining behavior of lecturers at universities in Hochiminh city

2.1.1. Characteristics of lecturers' information need at universities in Hochiminh city

Information need of lecturers has several characteristics: depth, regularity, stability, modernity and updating. Lecturers seek information for different aims, in which, serving teaching activities is the most important main aim. Besides, scientific research is also another important goal related to arise information needs, seeking and using information of lecturers.

2.1.2. Behavior of determining the aims of information seeking of lecturers

The aim of seeking information of lecturers is very diverse. From the university managers' requirements on teaching, scientific research and self-study activities, lecturers' information need is formed. Then, they motivated to seek, use and share information. In particular, the teaching task is the most important main aim affecting the process of forming the lecturers' information behavior. At the same time, conducting scientific research is another important goal related to arise information needs, seeking and using information of lecturers. Behavior of determining the target of seeking information of lecturers is expressed clearly and concretely that formed before they determine and express their information needs.

2.1.3. Behavior of determining and expressing information needs of lecturers

Determining the lecturers' information needs: From the results of survey and experiments, there are perfect at determining the lecturers' need

for information. They use various types of documents to satisfy information needs. In particular, electronic documents are type of materials used by many lecturers with using technology in information search.

Expressing the lecturers' information needs: After determining the information problems and type of information, they express information need in two ways including expressing and potential expression. It means that there is very little expression of the lecturers' need for information with colleagues or thanks to the support of library staff. Most lecturers determine their own needs and find information themselves.

When comparing with specific requirements, the act of identifying lecturers' information needs is relatively complete in the act of identifying concerns and identifying types of information before finding information. Lecturers at universities in Hochiminh city have the ability to fully determine their information needs by identifying important keywords, descriptive keywords which related to research issues, identifying research objects, methods. In the study area, they are able to decide which types of documents to meet their information needs. At the same time, the survey results of behavior of determining lecturers' information need have clarified the characteristics of their information needs of regularity, depth, stability, updating and modernity. These characteristics expressed throughout the course of information seeking with different aims (teaching, scientific research, self-study and other aims). Depending on each objective of seeking specific information, lecturers will have different information needs. These differences are expressed specifically through the content of the information needs (contents, types of document and language of the document). In particular, the general trend of lecturers' information needs at universities in Hochiminh city includes: First, most lecturers have a great need for specialized documents. Secondly, most lecturers tend to use the combination of printed and electronic documents and prioritize online materials. Thirdly, English materials are chosen by most lecturers to satisfy their information needs. In particular, most lecturers can figure their information needs and aims of finding their own information before searching.

However, one of the limitations in the behavior of identifying lecturers' need for information is that expressing the lecturer' information need is still implicit. Behavior of expressing information needs only appear when they have difficulties in finding information. At that time, lecturers

have the connecting with their colleagues to recommend the information which they need. Meanwhile, most lecturers rarely have interaction with library staff to clarify the information needs before their searching.

2.1.3. Factors impacting on behavior of determing the lecturers' information needs

Behavior of determining the information needs and lecturers' information needs are influenced by many factors, including their teaching activities, scientific research activities, requirements to improve qualifications and professional qualifications, foreign language proficiency and some other factors of each lecturer. The most influential factor in forming the lecturers' information needs and their behaviors to find information needs is teaching activities.

2.2. Information seeking behavior of lecturers at universities in Hochiminh city

2.2.1. Determining and evaluating information sources of lecturers at universities in Hochiminh city

2.2.1.1. Determining and selecting the information sources

The survey results show that the sources of information that lecturers often use to support teaching, scientific research and self-study are mainly personal collections, colleagues and Internet. These choices are based on the basic criteria, which considered factors that directly affect the process of lecturers of choosing information sources. However, the lecturers' ability to limitedly exploit the information resources, especially the information sources from the academic libraries.

2.2.1.2. Criteria for selecting information sources of lecturers

Criteria for selecting sources of information are analyzed in this study, include the degree of completeness, ease of access, reliability, reasonable cost, time of responding, update and suitability for information needs and familiarity of information sources. One of the main criteria for lecturers to select right information sources is the accessibility and familiarity of most information sources.

2.2.2. Information seeking behavior in retrieval system of lecturers at universities in Hochiminh city

2.2.2.1. Information searching skills

Building the information searching strategies: Building a search strategy: The survey results and experiments show that lecturers only use

simple methods of searching information such as setting up a search expression at a basic level, without combination of using the operator. Besides, they rarely have used for advanced search operator or limited search results accurately. Moreover, compared to the requirements of information search behavior, lecturers are not really proficient in effective search of information retrieval systems.

Evaluating and choosing information: After finding information, lecturers tend to select relatively suitable materials for their information needs. There is one reason is that they know how to select information before reading and avoid wasting time when choosing and reading the document.

2.2.2.2. Factors impacting on lecturers' information seeking behavior

Factors affecting the choices of lecturers' choosing for information retrieval systems include the time fund of each lecturer, the lecturers' skills of searching information, familiarity with the information retrieval systems and quality of the information retrieval systems and the cost which the lecturers must pay for using the system. In particular, the major reason affecting the lecturers' choices of information retrieval systems depends very much on the lecturers' time fund and the familiarity and quality of the information retrieval.

2.3. Fair information using and sharing behavior of lecturers at universities in Hochiminh city

2.3.1. Lecturers' behavior of storing information

The results of surveying lecturers' information behavior showed that lecturers tend to store more electronic information than paper in their personal collections. At the same time, the storage method of lecturers is simple. Therefore, the academic libraries can also support lecturers with supporting services of information storage, assist lecturers to organize and rearrange their personal collections.

2.3.2. Lecturers' behavior of using information and exploiting the value of information

Lecturers are able to use information effectively and exploit the values of information for teaching, scientific research and other tasks. Information has its value for lecturers when they use information effectively for completing scientific outputs, helping lecturers to have some new

information, opening up new approaches, research directions. Specially, they think that there is a difference between the information gap before and after using the information.

2.3.2.1. Information citing behavior

When comparing with requirements, fair information use of lecturers satisfies level of seriously complying with copyright, citation, etc. However, lecturers do not know or use them masterly the tools, software to cite documents and create references. This requires each lecturer to learn actively and update knowledge and skills on citing software. At the same time, academic libraries also give lecturers the supporting services with specific services such as instructing lecturers to use softwares and other utilities to support their research activities.

2.3.2.2. Fair information sharing behavior

When compared with the requirements of use and sharing behavior of lecturers, there are some limitations of lecturers, including that they have not yet exploited the values of citation software and information sharing channels in the academic community. To overcome these limitations, it is necessary to have support from academic library managers such as providing guidance services for using citation softwares, supporting in information storage and sharing of lecturers' research outputs.

2.3.2.3. Factors impacting on lecturers' information sharing behavior

Behavior of information sharing of lecturers is influenced by different factors such as computer skills, foreign language skills, qualifications, professional experience, time of lecturers and other factors. In particular, the qualifications, professional experience and lecturers' time fund spending on sharing information are factors that greatly affect the behavior of using information of lecturers.

2.4. Determining the characteristics of lecturers' information behavior at universities in Hochiminh city

2.4.1. Strengths of lecturers' information behavior

Lecturers have determining behavior of information need clearly in accordance with teaching, research, self-learning and community service. The strength of lecturers' information behavior is that they could fully identify their information needs in-depth, ensuring stability, regularity, updating and modern, supporting teaching activities, research activities and

community service. Lecturers are able to find and limit the range of information who they need (content, type, language to suit their needs); Identify the characteristics, characteristics and meanings of the types of information, identify the aims of the information searching, present the research question/ issue, find and generate main keywords which are relevant to the research subject (object and aspect of study).

Information seeking behavior of lecturers is personal information behavior. Each lecturer has the initiative to seek information as well as use information for their specific purpose. At the same time, lecturers often do their information behavior independently and actively, because they are the ones who decide the scope of their information needs, methods of information search, organization of information and use. Especially, they often spend flexible time on seeking information they need.

Lecturers have ability of determining information sources, evaluating and selecting proper information to save their time and effort. Among available information resources, lecturers are able to identify characteristics of information sources and the way of organization, access to information resources, evaluate and select sources of information based on specific criteria, and the ability to build relationships with colleagues, learners in the search process. The information source is that many lecturers choose is colleagues and Internet. This shows the cooperative characteristics of lecturers' information seeking behaviors, which help them to better access and use proper sources of information through social relationships. Besides, lecturers use the knowledge and skills necessary to select the Internet as a useful and appropriate source of information. Most lecturers are able to distinguish the characteristics of the types of materials.

The ability to use foreign languages and computer skills of some lecturers help them improve information search skills. This is a good condition for them to search, select, exploit and use various information resources (type of documents, how to find information, ability to use the information retrieval system, use of information in different languages.

The fair use and sharing of information of lecturers that compliance with issues related to copyright, regulation of quotes. The lecturers are serious about adhering to ethical issues in research, teaching, and self-studying. This reflected in lecturers' activities such as providing lectures,

guiding the learners in research, scientific publications, etc. to learners and the academic community both inside and outside the university.

Multitasking is one prominent characteristic of lecturers' information behavior. Each lecturer are able to conduct multiple activities at the same time. For example, when their information need arises, the lecturers will combine information search. Along with the process of searching information, they will select the right information and proceed to storage and use. Lecturers whom have little time to find and use information often do this behavior. For instance, when a lecturer writes a journal about a particular subject, they simultaneously search, select and use information in their writing. In addition, some survey results also show that, when they seek information on specific issues, they tend to store information in personal collection, while reading and using information for specific purposes. After that, they continue to seek other information.

2.4.2. Limitations of lecturers' information behavior

Performing the information needs of lecturers is also implicit. Lecturers rarely express the need for information by specific information requirements with appropriate sources of information. Behaviors of performing the information needs of lecturers only appear when they have difficulty in seeking information. At that time, lecturers often interact directly with colleagues. Rarely do they interact with librarians who support them to clarify the need for information before seeking information. This characteristic makes decrease opportunities for lecturers to meet their information needs.

The lecturers' ability to use and exploit the effectiveness and diversity of information sources is limited, especially in academic libraries. Despite the lecturers' use of familiar information sources to meet their information need, they have not fully exploited the value of other information sources such as the academic libraries. Particularly, the criteria for selecting familiar sources of information also decrease the possibility of access to other sources of information that lecturers has not ever used yet.

The lecturers have ability to build an-information-seeking strategy and information searching is basic and simple. They have the ability to build information-searching strategies, know how to use basic operators to set up search expressions. However, the lecturers have not fully recognized the way information is organized and the mechanism of operation of the

information retrieval system. Moreover, they have not used effectively the search engines indeed. They hardly use the advanced search that combines operators and have not adjusted when seeking information

Lecturers' information behavior is greatly affected by the time budget for information seeking activities. The reason for this limitation is that each lecturer needs a simultaneous time allocation for performing a variety of roles and tasks as well as spending time on searching and using information.

Information storing, organizing and arranging behavior in the lecturers' personal collection limit. Sometimes, lecturers have difficulty in seeking information in their own collections. Some lecturers also need the support of the academic libraries during the processing and organization of personal collection that they have (personal bookshelves, private library).

The behavior of quoting and sharing information is still limited. The lecturers have not yet fully exploited the effectiveness of software, add-ons, and reference lists. At the same time, the storage of information in the research activities of lecturers is personal. They also share information within the narrow academic community. Lecturers have not effectively exploited the information channels to share information effectively.

The co-operation of lecturers' information behavior is not clear. Specifically, before the lecturers have information need and find sources of information, search in the information retrieval system and process or use information; most lecturers do randomly and not have specific strategies. For example, only when no information is found, the lecturers need the support of colleagues, friends in and out of school. This sometimes affects the efficiency of seeking and using information of lecturers, which takes much time and effort of them.

Summary of Chapter 2

From practical research of lecturers' information behavior at universities in Hochiminh city, there are the following outstanding features of lecturers' information behavior.

1. In comparison with the requirements of lecturers' information behavior in general and lecturers at universities in Hochiminh city in particular, it is shown that there has perfection in the behavior of determining the information need and relatively perfection in the behavior

of using information for personal purposes. Lecturers have ability to orient the information sources in accordance with the needs, however, they have not fully exploited the effectiveness of information sources, especially the academic libraries. Besides, they have not actively expressed the information need with specific requests for information.

2. The lecturers' information seeking behavior also has randomness, lack of strategy when searching for information. Lecturers' behavior of using and sharing information is mainly to fulfill the goals of individuals, while there is no active sharing with colleagues and sharing with the scientific community. Lecturers have not actively exploited information sharing channels effectively.

3. The lecturers' information behavior is influenced by many factors. Firstly, for the act of determining the demand for information, the role of lecturers in universities is the decisive factor and directly affects the formation of information needs. Secondly, knowledge and skills of lecturers of seeking information is a factor affecting lecturers' behavior of seeking information. Thirdly, lecturers' skills of information storage, their ability to exploit the features of supporting software, technology utilities, information sharing channels and time funds also affect the fair using and sharing of information of lecturers at universities in Hochiminh city.

4. It is very necessary for library managers, university managers and lecturers to have solutions for enhancing lecturers' information behavior. The above analysis contributes to a practical basis to propose possible solutions to improve the lecturers' infomation in the future research.

Chapter 3
SOLUTIONS FOR ENHANCING LECTURERS' INFORMATION BEHAVIOR AT UNIVERSITIES IN HOCHIMINH CITY

3.1. Establishing model of lecturers' information behavior

3.1.1. Objectives and bases for building the information behavior model of lecturers

❖ *Objectives of building the information behavior model of lecturers*: The enhancement of the lecturers' information behavior requires not only the efforts of each lecturer but also the close co-ordination with

managers of universities as well as the staff of university's libraries. The aims of building the lecturers' information behavior at universities in Hochiminh city is the stimulation of standardized lecturers' information behavior. This model is a theoretical model of lecturers' information behavior which including specific stages in the model, the impact of factors on each stages within this model, the requirements for lecturers' information behavior.

Then, managers at universities and academic libraries and lecturers could decide the possible solutions for enhancing the lecturers' information behavior. Moreover, model of lecturers' information behavior is also basis for managers to refer in developing plans and strategies.

❖ *Bases of building the lecturers' information behavior model:* The model builds based on (1) the theory of building the information behavior model; (2) practical basis for researching lecturers' information behavior at universities in Hochiminh city; and (3) the requirements of lecturers' information behavior.

- *Theoretical base*: Integrated model of information behavior of Wilson (1981,1997, 1999) and Kuhlthau's model are the two main models that this study selects and inherits in the process of proposing the lecturers' information behavior model. Wilson's model emphasizes the subjective and proactive role of information users, the context of forming information needs and factors affecting users' information behavior. Kuhlthau's model is a detailed analysis of specific stages of information behavior, especially the phases of information seeking behavior of information users.

- *Practical base*: Based on practical results of researching lecturers' information behavior at universities in Hochiminh city with the specific advantages as well as limitations. Besides, the practical basis of building this model is enhancing lecturers' information behavior.

- *Requirements of the lecturers' information behavior model:* The model of lecturers' information behavior must meet the specific requirements such as fully demonstrating the stages of the model and the factors affecting the model's phases; ensuring the close operation between stages; and building on the general principles of information users and making highlight the lecturers' information behavior in universities with the basic requirements of their information behavior.

3.1.2. Proposed model of lecturers' information behavior at universities in Hochiminh city

The proposed model of lecturers' information behavior at universities includes 3 main phases (behavior of identifying information needs, information seeking behavior, behavior of using and sharing information). Each phase describes in detail the operating mechanism, influencing factors, requirements for lecturers' information behavior.

Figure 3.1. Model of lecturers' information behavior
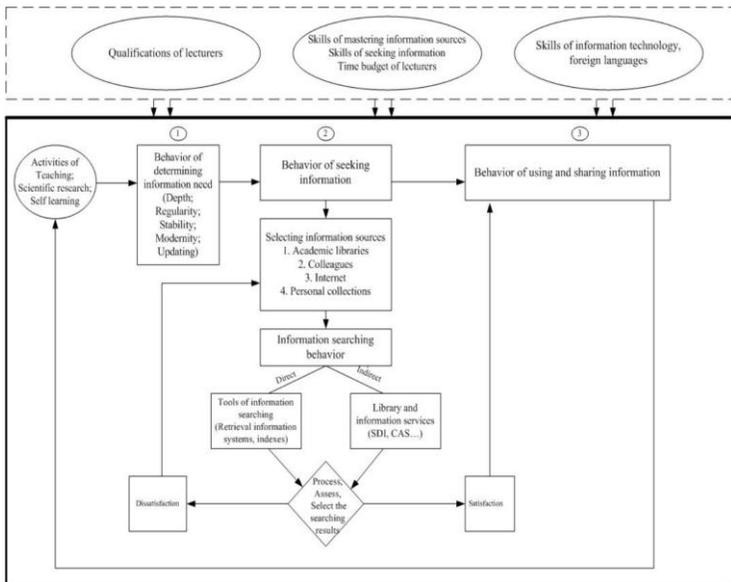
Notes:

Phases of lecturers' information behavior

Direct and indirect impacting

3.2. Solutions for realization information behavior model of lecturers at universities in Hochiminh city

3.2.1. Solutions for academic libraries

The academic libraries should focus on implementing the solutions including (1) studying the lecturers' information behavior for university libraries to conduct methods or solutions positively and effectively for lecturers; (2) Enhancing and developing library and information products and services to support each specific groups of lecturers; (3) Strengthening

promotional activities of libraries for lecturers to support lecturers who have understand clearly about the library' support for lecturers' information behavior; (4) Building a system of inter-faculty and departmental, expanding the service space for lecturers to help them to access and exploit a variety of information resources of universities, departments and disciplines at universities; (5) Completing the retrieval system at university libraries to help them find information conveniently, quickly, in time and meet the requirements of lecturers' information behavior; (6) Improving the quality of information resources of the academic libraries to provide lecturers with enough specialized information sources, which are suitable to the information needs for teaching, research and self-studying activities; (7) Building and developing a cooperative relationship between liaison librarians and lecturers to improve the efficiency of searching, using and sharing information and capacity of serving specialized information of academic libraries with lecturers at universities.

3.2.2. Solutions for lecturers

Each lecturer needs (1) to equip himself/ herself with skills to define information needs, skills of seeking, using and sharing information. Basing on that, lecturers could figure the characteristics of information behavior and the ways for enhancing their information behavior; (2) Developing the inter-personal relationship of lecturers inside and outside the universities to help them in exploiting a variety of information sources for their teaching, scientific research and self-study activities.

3.2.3. Solutions for universities

The university managers needs to conduct solutions to improve of lecturers' information behavior including (1) Implementing the working environment for lecturers at universities in Hochiminh city which helps them to develop information needs, seek and use information to improve the professional capacity of lecturers; (2) Developing policies to support lecturers in teaching, scientific research and self-study as well as encourage them to do assigned tasks; (3) Completing policies of trainning, developing, và providing promotional opportunities with lecturers (4) Developing a set of assessment criteria of lecturers' information behavior to help university managers to assess quality of lecturers. At the same time, lecturers also could evaluate their own abilities, including cability of seeking, using and sharing information in teaching, scientific research and self-study activities.

Summary of Chapter 3

1. The lecturers' proactive is one very important need for them to improve their information behavior. Besides, the contextual factors also

impact on the lecturers' information need forming, seeking information and using, sharing information. This helps them to recognize the factors affecting on the process of seeking, using, sharing information.

2. Matching the requirements of information behavior and characteristics of lecturers at universities in Hochiminh city, lecturers' information behavior are in perfect information behavior model. This is as standards for measuring the improvement of process which lecturers have contacted with information in order to support in teaching, research and self-learning. This model of information behavior has begun with the context which forms information need and next specific stages (behavior of determining information need, information seeking, information use and share). Then, the end point of this model is to serve the lecturers' activities of teaching, research, self-learning and public service learning.

3. The groups of solutions to make lecturers' information behavior model into the reality are also proposed, to make sure the feasibility and compatibility with each context of universities and for each group of lecturers, including solutions for lecturers, university managers and library managers. In particular, the role of academic libraries contributes greatly in improving the lecturers' information behavior at universities.

4. Depending on specific reality, university and library managers could rank the solutions for each period. These solutions will contribute to perfecting the lecturers' information behavior at universities in Hochiminh city.

CONCLUSION

Researching information behavior of information users as well as lecturers is one of the issues that are of great concern in field of library and information. In each context, information behavior of users has different characteristics and the following conclusions could be drawn:

The results of research on theoretical and practical foundations of information behavior of information users as well as lecturers at universities in Hochiminh city shows the important role of research information behavior for universities managers, academic libraries and each lecturers in teaching, research and self-learning. At the same time, results of the research also show the need for research lecturers' information behavior in academic settings. Based on the analysis and inheritance of basic research theories of information behavior of the users, the thesis has presented the concept of information behavior, shown the factors affecting the lecturers' information behavior, the model of lecturers' information behavior and the role of researching information behavior.

Information behavior of lecturers at the universities in Hochiminh city was influenced by many factors, where the role of lecturers is the decisive factor and directly influences the information needs of lecturers, information seeking, using and sharing behavior. In particular, the information need based on the requirements of teaching and research. Besides, the time management of lecturers has a great impact on the behavior of information seeking, using and sharing. Besides the outstanding advantages in lecturers' information behavior, the limitations in their information behavior also affect the process of using information in teaching, research and self-learning activities of lecturers.

Developing of a standard model of information behavior to measure the lecturers' information behavior is very essential. Some proposed solutions include the solutions for lecturers, academic libraries and universities managers. Among those, the academic libraries plays a big part in enhancing lecturers' information behavior at universities in Hochiminh city. Depending on the needs and capabilities of each library, they could choose and prioritize proper solutions at each stage. Since then, these groups of solutions will improve lecturers' information behavior at the universities in Hochiminh city.

There are new ideas of future research such as developing the relationship between the liaison librarians and lecturers in supporting lecturer's information behavior. Besides, some research are also conducted such as building the integration model between academic libraries and faculty' libraries; Research the effect of lecturers' traits on their information behavior; Developing the information services for enhancing lecturers' information behavior; Research the role of lecturers in researching information behavior; Establishing the set of standards for evaluating the lecturers' information behavior and so on.

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