



UNIVERSITI PUTRA MALAYSIA

**IDENTIFICATION OF GRADUATE RESEARCH STUDENTS' RESOURCE NEEDS IN A
MALAYSIAN PUBLIC UNIVERSITY**

AFFERO BIN ISMAIL

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**MASTER OF SCIENCE
UNIVERSITI PUTRA MALAYSIA**

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NEEDS IN A MALAYSIAN PUBLIC UNIVERSITY**

By

AFFERO BIN ISMAIL

**Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
fulfilment of the requirements for the Degree of Master of Science**

August, 2008



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Master of Science

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Chairman : Norhasni Zainal Abiddin, PhD

Faculty : Educational Studies

The desire to pursue higher education is constantly increasing. The government and the institutions of higher learning are striving to attract more students, especially at the graduate level by making every effort to provide quality education. Some scholars proposed that the strategic success of a service organization depends on its ability to consistently meet or exceed customer service expectations. Students need information and support to cope in balancing the demands of the different environments. One of the major problems facing by the higher education nowadays is attrition and completion rates. To sustain a high completion rates, one of the most challenges role of the supervisor is to ensure effective facilitate and responsible to assist the students in their research. In most existing research literature, study on information and services and supervisory system were done separately. Moreover, most of the studies about supervisory system were done by researchers from other countries. However this study



took a further step by assembling these needs together in one single research. Therefore this study was conducted in order to explore the students' needs in both elements so that it will bring to a significant effect of either to the institutional or the students.

The main objective of this research is to identify the students' resource needs in terms of information and services and supervisory system. Questionnaires were sent to 341 graduate students in a public university determined by purposive sampling. They were Master or PhD students with thesis program. 184 (53.96%) of them were returned and usable. This study found that administrative functions, such as information on service and support in terms of bursaries and loans, and student fees may need to be improved. Meanwhile, the information about student support and welfare services also states the lowest mean among these which are 2.00. The lowest mean was International Office (IO) with a mean of 1.79. Only 44% of the respondents found access to computers very accessible, while 2.2% of the respondents indicated that the use of computer facilities did not apply to them. The same general trend applies to the internet access. Highest rank of students' perception was the treatment from lecturer/tutor with a mean of 3.53. The lowest falls to parking area facilities and the cafeteria with mean of 2.86. The overall rank order of the services' dimension shows that the poorest services fall to responsiveness with mean of 3.09 for science based faculty and 3.20 for social science based faculty. Empathy falls at the first rank of services' dimension with mean of 3.30 for science based faculty and 3.51 for social science based faculty.

The majority of respondents found that the supervisory aspects generally very accessible with a mean of 2.43. They also agreed that it was very accessible to contact a supervisor with a mean of 3.49. However, selection of supervisor and information on potential supervisor were perceived as moderately accessible. Respondents perceived that time management is very important to them with the highest mean of 4.31. Supervisory contributions in this research were categorized into five which are Managerial, Research, Academic, Language and Interpersonal Input. Respondents perceived that Managerial Input was at the highest priority. It is followed by Research Input with a mean of 4.26. Academic and Interpersonal Input was rating at the third and fourth rank with mean of 4.22 and 4.21. Language inputs fall at the last rank.

The learning that takes place during graduate studies is a maturing, must be enhanced with timely and appropriate support. University should provide information and support to graduate students without sacrificing the coherence and generic input needed in any academic program. Further research should be expanded to investigate the students' needs in more depth as it may have a significant influence on the enhancement of an effective resource.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**MENGENALPASTI KEPERLUAN SUMBER PELAJAR SISWAZAH
PENYELIDIKAN DI SEBUAH UNIVERSITI AWAM DI MALAYSIA**

Oleh

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Ogos 2008

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Kemahuan untuk melanjutkan pelajaran ke pengajian tinggi semakin meningkat. Kerajaan dan institusi pendidikan tinggi sedang berusaha menarik lebih ramai pelajar terutama di peringkat siswazah dengan melakukan pelbagai usaha dalam menyediakan pendidikan yang berkualiti. Sesetengah ahli akademik mencadangkan bahawa kejayaan perkhidmatan dalam sesebuah organisasi bergantung kepada keupayaan mereka untuk mencapai harapan pelanggan. Siswazah memerlukan informasi dan sokongan untuk mengharungi cabaran dalam situasi yang berbeza. Salah satu masalah yang sering dihadapi oleh institusi pengajian tinggi masa kini adalah halangan dan kadar pengajian ditamatkan. Untuk mengekalkan pengajian ditamatkan pada kadar yang tinggi, salah satu cabaran yang perlu dilalui oleh penyelia adalah untuk memastikan sokongan yang efektif dan bertanggung jawab dalam membantu siswazah dalam penyelidikan mereka. Dalam kebanyakan kajian literatur, kajian ke atas informasi dan perkhidmatan serta sistem penyeliaan dijalankan secara berasingan. Tambahan pula, kebanyakan kajian



berkenaan sistem penyeliaan dijalankan oleh penyelidik dari luar negara. Walau bagaimanapun, kajian ini melangkah ke depan dalam menyatukan keperluan ini bersama-sama dalam satu kajian. Oleh itu, kajian ini dilaksanakan bertujuan untuk menganalisis keperluan pelajar dalam kedua-dua elemen seterusnya membawa kepada kesan yang signifikan kepada institusi dan juga pelajar.

Tujuan utama kajian ini dijalankan adalah untuk mengenal pasti keperluan sumber pelajar siswazah ke atas informasi dan perkhidmatan serta sistem penyeliaan. Kajian ini juga bertujuan untuk mengkaji harapan dan keperluan pelajar siswazah melalui kedua-dua elemen. Borang soal-selidik telah diedarkan kepada 341 pelajar di satu universiti awam di Malaysia berdasarkan persampelan bertujuan. Mereka adalah pelajar Master dan juga PhD dengan program tesis. 184 (53.96%) daripada soal selidik dipulangkan dan berjaya digunakan. Kajian mendapati fungsi pentadbiran seperti informasi berkaitan perkhidmatan dan sokongan dalam bursa dan pinjaman dan yuran pelajar harus dipertingkatkan. Sementara itu, informasi berkaitan sokongan dan kebajikan pelajar turut menunjukkan min yang rendah iaitu 2.00. Min yang paling rendah adalah Pejabat Antarabangsa dengan min 1.79. Hanya 44% responden menyatakan bahawa kemudahan komputer adalah sangat senang diakses sementara 2.2% (n=4) menyatakan mereka tidak menggunakan kemudahan komputer. Hal yang sama juga berlaku kepada kemudahan internet. Kedudukan tertinggi persepsi pelajar jatuh kepada layanan daripada pensyarah/tutor dengan min 3.53. Kedudukan terendah adalah kemudahan meletak kenderaan dan kantin dengan min 2.86. Keseluruhan kedudukan dimensi servis menunjukkan bahawa servis yang paling lemah adalah berkenanan respons dengan min

3.09 untuk fakulti berteraskan sains dan 3.20 untuk fakulti berteraskan sains sosial. Empati diletakkan di tempat pertama dalam dimensi servis dengan min 3.30 untuk fakulti berteraskan sains dan 3.51 untuk fakulti berteraskan sains sosial.

Majoriti responden mendapati aspek penyeliaan secara umumnya senang diakses dengan min 2.43. Mereka juga setuju bahawa menghubungi penyelia sangat senang diakses dengan min 3.49. Bagaimanapun, memilih penyelia dan maklumat berkenaan penyelia yang berpotensi dinyatakan sebagai sederhana senang diakses. Responden merasakan pengurusan masa sangat penting kepada mereka dengan min tertinggi 4.31. Sumbangan penyelia dalam kajian ini dibahagikan kepada lima input iaitu Pengurusan, Penyelidikan, Akademik, Bahasa dan Aspek Dalaman. Responden meletakkan Input Pengurusan di tempat yang pertama. Ini diikuti dengan Input Penyelidikan dengan min 4.26. Input Akademik dan Aspek Dalaman adalah di tempat ketiga dan keempat dengan min 4.22 dan 4.21. Input Bahasa adalah di tempat yang terakhir.

Pembelajaran dalam pra-siswazah adalah proses kematangan, harus dibantu dengan masa dan sokongan yang baik. Universiti seharusnya menyediakan informasi dan sokongan kepada pelajar tanpa mengorbankan input asas yang diperlukan dalam program akademik. Kajian selanjutnya harus dijalankan untuk mengkaji keperluan pelajar dengan lebih mendalam.

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All praise to Allah (s.w.t) for His Kind Guidance and Mercy, we are made to be part of His vast creation. Peace and Blessings be upon His prophet Muhammad and the believers who followed His path to the Day of Judgment. Praise to Allah, for the completion of this thesis.

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I certify that an Examination Committee has met on 19 August 2008 to conduct the final examination of **Affero bin Ismail** on his degree of **Master of Science** thesis entitled “**Identification of Graduate Research Students’ Resource Needs in a Malaysian Public University**” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the student be awarded the degree of Master of Science.

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Date: 13 November 2008



DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or other institutions.

AFFERO BIN ISMAIL

Date: 19 AUGUST 2008



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LIST OF ABBREVIATIONS

DEST	Department of Science and Technology
GRA	Graduate Research Assistance
GSO	Graduate School of Studies
HRD	Human Resource Development
IO	International Office
IRPA	Intensification of Research in Priority Areas
IT	Information Technology
JPPPL	Jabatan Pemajuan Profesional dan Pendidikan Lanjutan
MOSTE	Ministry of Science, Technology and the Environment
PPL	Pusat Pendidikan Luar
RA	Research Assistant
RU	Research University
S&T	Science and Technology
SQHE	Service Quality in Higher Education
UABC	University of ABC (Pseudo Name)
UPM	Universiti Putra Malaysia



CHAPTER I

INTRODUCTION

Introduction

Issues of graduate studies have been studied and debated worldwide in the face of a changing higher education landscape. There are various stakeholders in the graduate process of study and inquiry, including the wider macro socio-economic environment, the micro institutional and departmental environment, as well as the individual student. Students need information and support to cope in balancing the demands of the different environments.

Background of Study

The study was mainly focusing on graduate students' needs. They have different needs at the different level of graduate studies. The needs also varied from one student to the others. At this point, their needs were categorized into two mains elements which are in terms of information and services and supervisory system. Here, supervisory system consists of research and supervision. The supervisory system cannot be existed without these fundamentals. Before the details about these needs were discussed, it's better to understand the situation or dilemma that cloaked the graduate students in their studies.

Overview of a Malaysian Public University and its Resource Development

The government allocated RM7.9 million to carry out development under the First Malaysian Plan (1966-1970) to this university (after this will address as UABC). The allocation received was spent on increasing students' intake, building lecture halls, extending areas for college development, adding more science laboratories and recruiting more staff. This university received support from the government to provide best facilities to their students. In 1994, this university embarked on its ambitious plan to develop as a futuristic university, which would provide better and up-to-date skills and systems for science and technology education by taking full advantage of the rapid development in information technology (IT). Thereafter, this university has transformed into a borderless campus, its name and reputation stretching far beyond the national boundaries. This was a strategic way of portraying the status of this university as a centre of higher education capable of providing various fields of studies, especially in information technology, which facilitates national developments in the new millennium. This university is resolute in its desire to continuously expand its achievements in researches and development.

Then, this university was awarded a title as a Research University. The vision of an RU expands existing philosophies and good practices to enhance overall education system and contribute to nation building. The mission of Research University is to be an engine of growth of the nation where scholars and students exchange ideas as well as conduct research in a conducive environment that nurtures exploration and creativity discover knowledge and create wealth, leading towards an improved quality of life. Research University (RU) plays an important role as an engine of growth of the nation where scholars and students exchange ideas as well as conduct

research in a conducive environment that nurtures exploration and creativity in discovering knowledge and creating wealth, leading towards an improved quality of life. Thus, as a RU, allocations have been given out in the development of an effective resource. Furthermore, this university received the highest Science Fund Grant among other RU universities. There are about 608 research grant amounting to more than RM26 millions have been approved. A large amount of fund had been allocated to the science and social science projects. The Malaysian Government has encouraged students to study the so called ‘critical subjects’ which are related to science-based disciplines. However, social science also contributes important development in their related area. According to this, research student which are students in science and social science area have been selected for this research. Their experience and expectation during their studies and research process are being emphasized in this project. Graduate students are important asset to university. They are the determinant for a success or a failure of a research project.

Graduate Issues in UABC

The author has decided to address this issue in a systematic and rigorous manner. As the number of graduate students in this university keeps increasing, the ability for university to manage these students questionably is effective. And the effectiveness of the resource becomes the main concern in this issue. As of 1st semester 2007/2008, it has about 4741 graduate students and 1500 of them are international students. From previous year, it had 3905 numbers of graduate students from 15 faculties and 8 institutes. Majority of the student are coming from thesis structure (Table 1.1). To handle this large number of students, the requirement of good information and services including other facilities would be a must. Managing the

students' needs for convenience environment will be a big challenge to the institution. Human nature of satisfaction will always be boundless but as long as their needs or desires are heading for the beneficial and right place, this should not be put aside. Apparently, lack of these factors will contribute to ineffectiveness of the resource.

If we observe the situation in this university, based on the data gathered by Graduate School of Studies (GSO), in 2005 graduate student with thesis (research and coursework) completed their Masters averagely within 2.69 years and PhD student completed their PhD within 4.84 years averagely (Table 1.2) where as they could complete it earlier than that. This scenario is worrisome if the duration of their study become longer and longer. The research process should run smoothly if there are adequate and excellent supports by the institution. The concern about higher degree non-completion and time taken to completion has attracted many scholars to explore especially in overseas for example in Canada, UK, USA and Australia. In some cases reported studies have focused on attrition statistics, with some American attrition estimates for doctoral studies being far higher than 50% (D'Andrea, 2002). However, some university estimates have suggested that attrition over the first several years of candidature is less than 40%. Other studies have suggested that more than one third leave in the first year (Lovitts and Nelson, 2000). At the high end of the scale, some estimates based on cohort studies have been that doctoral candidate attrition overall may be as high as 85% in the USA (D'Andrea, 2002). At the lower end, Colebatch (2002) suggested that completion rates for research degrees in Australia have increased considerably since the 1980s to between 80% and 90% in the mid 1990s.