

**ANALYSIS OF UMS TRACER STUDY AMONG SCIENCE GRADUATE IN 2008**

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**THIS DISSERTATION SUBMITTED TO FULFILL THE PARTIAL REQUIREMENTS  
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## DECLARATION

I hereby declare that this dissertation contain my original research work. Sources of findings reviewed herein have been duly acknowledged.



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28 April 2010

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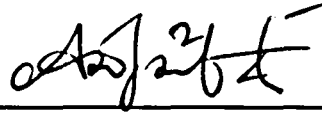
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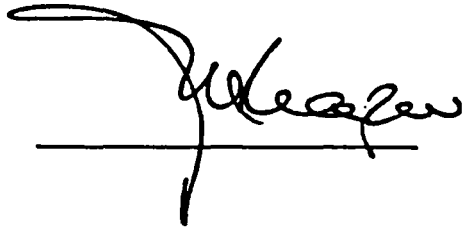
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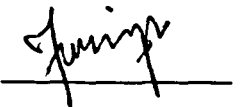
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## ABSTRACT

The purpose of this study is to identify the effectiveness of academic programs, services and facilities among Universiti Malaysia Sabah (UMS) science graduates in 2008. The perception of the science graduate respondents on the academic programs, services and facilities has been measured by the questionnaire of Higher Learning Institutions Tracer Study 2008. This study consists of 1182 respondents from the science graduates in 2008. The reliability and the factor analysis were used to measure the goodness of the questionnaire. The reliability of the section items were found to be between 0.869 and 0.959 which is considered as having a good reliability. The factor analysis managed to identify the items that contributed to the section scale measured. The score obtained from the scale has been used to determine whether there are significant difference of mean score of academic programs, services and facilities between the demographic factors such as gender, age, ethnicity and academic achievement. The current job status of the graduates was also measured. Comparing the mean methods such as independent t-test and one-way ANOVA were used. The result showed that majority of science graduates have good satisfaction level on the academic programs, services, and facilities offered by UMS. There is some significant difference between demographic factors towards the academic programs, services, and facilities such as in curriculum and gender ( $p=0.004$ ). Besides that, there are significant different between age group and the influence of campus life ( $p=0.006$ ). The UMS science graduates have good job performance in the workplace because of the high mean score for the rating of the ability and capability to perform the job (mean=4.1458) and also the evaluation and level of satisfaction with current job (mean=4.0136).



# **ANALISIS KAJIAN PENGESAHAN GRADUAN SAINS UNIVERSITI MALAYSIA SABAH PADA 2008**

## **ABSTRAK**

Objektif tujuan kajian ini adalah untuk mengenalpasti keberkesanan program, perkhidmatan dan kemudahan antara graduan bukan sains Universiti Malaysia Sabah (UMS) pada 2008. Kajian ini juga menilai Persepsi responden terhadap program, perkhidmatan dan kemudahan dengan menggunakan instrumen soal selidik kajian pengesahan graduan IPT 2008. Seramai 1182 responden graduan bukan sains yang menyertai kajian ini. Ujian kebolehpercayaan dan analisis factor digunakan untuk menentukan kebagusan soal selidik kajian pengesahan graduan. Nilai kebolehpercayaan bagi item-item dalam soal selidik adalah antara 0.869 dan 0.959, ia dianggap mempunyai kebolehpercayaan yang baik. Sementara itu, analisis faktor telah berjaya mengenalpasti sumbangan item-item tersebut. Skor dihitung dari item-item tentang program, perkhidmatan dan kemudahan akademik. Ujian t tidak bersandar dan analisis varians telah digunakan untuk menentukan perbezaan min skor yang signifikan antara faktor-faktor demografi seperti jantina, umur, etnik dan pencapaian akademik bagi program, perkhidmatan dan kemudahan akademik. Status pekerjaan graduan telah ditentukan dan dikaji. Hasil menunjukkan bahawa sar graduan mempunyai kepuasan yang baik tentang program, perkhidmatan, dan kemudahan akademik yang ditawarkan oleh UMS. Terdapat beberapa perbezaan yang signifikan antara faktor-faktor terhadap program, perkhidmatan, dan kemudahan akademik sepertinya kurikulum dengan gender ( $p=0.004$ ). Selain itu, umur dan pengaruh pendidikan di institusi terhadap kehidupan mempunyai perbezaan yang signifikan ( $p=0.006$ ). Graduan sains UMS telah menunjukkan prestasi kerja yang baik di tempat kerja kerana mempunyai min skor yang tinggi bagi kepercayaan and kemampuan diri dalam melaksanakan perkerjaan (min=4.1458) dan tahap kepuasan terhadap pekerjaan (min=4.0136).

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## LIST OF SYMBOLS

$\alpha$	alpha
$\sigma$	sigma
$\Sigma$	summation
$\chi$	chi
$\Lambda$	lambda
$\mu$	micro
$\epsilon$	epsilon
$\tau$	tau
$\neq$	not equal to
$>$	greater than
$\bullet$	bullet

# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

Globalization and education reforms have resulted in a significant shift to knowledge based economy where the knowledge is now regarded as a nation's key resource which is increasing emphases for work competency standards, quality assurance and accountability, industry involvement and generic skills acquisition (Teh & Pendergast, 2009). As Malaysia Education Act 1996 has outlined, the purpose of education is to enable the Malaysian society to have a command of knowledge, skills and values for achieving the country's vision of attaining the status of a fully developed nation in terms of economic development, social justice and spiritual, moral and ethical strength, towards creating a society that is united, democratic, liberal and dynamic. The mission is to create a world class quality education system.

Since the objective of Ministry of Higher Education is to produce competent graduates to fulfill national and international manpower needs with 75 percent of the graduates employed in their relevant fields within six months of their graduation, a graduate tracer study has emerged as a response to this need. This graduate tracer study involved all the graduates students from Public Institution of Higher Education (IPTA), Private Institution of Higher Education (IPTS), polytechnic and also Community College.

This study will focus on the graduate tracer study where collected from Universiti Malaysia Sabah graduates in 2008. It will analyze the background information of graduates, evaluation of programmes and services offered by the





institution, effectiveness of study program and self readiness, their current status whether they are employed or unemployed.

## **1.1 Background**

Ministry of Education Malaysia had begun the first graduate tracer study system in Polytechnic from June 1997 until December 1999. Through this study, Polytechnic had performed excellently in preparing the academic perform level in all fields for certificate level and also diploma level.

From 2000, the graduate tracer study was continuing under the World Bank Loan Financing which had produced an Education Sector Support Project (ESSP) on Polytechnic.

Started in 2002, Economic Planning Unit (EPU) and also Prime Minister Department had taken the initiative to run the first national graduate tracer study using a standard and uniform questionnaire involving all the Public Institution of Higher Education (IPTA), Private Institution of Higher Education (IPTS) and also Polytechnic. This tracer study had been following through until 2005 and it was coordinated by Ministry of education and Ministry of Higher Education (MOHE, 2008).

In 2006, Ministry of Higher Education had successfully developed and launched Information and Communication Technology based system that enables the study being carried out through online. This study system called tracer study system (SKPG I). This study is being carried out every year on new graduates in conjunction with the university convocation ceremony.

From 24<sup>th</sup> November 2008 until now, Ministry of Higher Education has carried out the first follow-up study (SKPG II) for the graduates who have complete their studies in higher education more than six months. With the availability of this new system, the nation will have a better and clearer illusion on graduates' world of work such as graduate employability, graduate job market, job trend and job mobility (MOHE, 2007).

### **1.1.1 Ministry of Higher Education (MOHE)**

Ministry of Higher Education was established on 27 March 2004. The ministry was established to develop and put in place a higher education environment that encourages the growth of primer knowledge centers and individuals who are competent, innovated with high moral values in order to meet national and international needs (The Ministry of Higher Education, 2007-2009). Hence, government had spent billion of Ringgit Malaysia to fulfill this mission.

The Malaysian Ministry of Higher Education is comprised of two departments which are Higher Education Department (JPT) and also Department of Polytechnic and Community College Management (DPCCE). JPT has two management sectors which are Public Institutions of Higher Education (IPTA) management sector and Private Institutions of Higher Education (IPTS) management sector.

#### **1.1.1.1 Public Institution of Higher Education (IPTA)**

There are 20 Universities in Malaysia which provides the higher education to students who are willing to continue their tertiary studies. The universities are Universiti Pertahanan Nasional Malaysia (UPNM), International Islamic Universiti Malaysia (IIUM), Universiti Sains Islamic Malaysia (USIM), National Universiti Malaysia (UKM), Universiti Sains Malaysia (USM), Universiti Tun Hussein Onn Malaysia (UTHM), Universiti Darul Imam Malaysia (UDM), Universiti Malaysia Kelantan (UMK), Universiti Malaysia Sabah (UMS), Universiti Malaysia Sarawak (UNIMAS), Universiti Pendidikan Sultan Idris (UPSI), Universiti Putra Malaysia (UPM), Universiti Teknologi Malaysia (UTM), Universiti Teknologi MARA (UiTM), Universiti Utara Malaysia (UUM), Universiti Malaysia Perlis (UniMAP), Universiti Malaya (UM), Universiti Malaysia Pahang (UMP), Univeristi Malaysia Terengganu (UMT), and also Universiti Technical Malaysia Melaka (UTeM).

### **1.1.1.2 Private Institution of Higher Education (IPTS)**

There are 327 private institution in Malaysia which included private university, university college, college and also their branch campus (Malaysian Qualification Register, 2010). Hence, for those who are not chosen to enter IPTA, and then they can have another alternative choice to further their studies in private institution. All of those university colleges are providing many kinds of courses and education for enriching knowledge to students and build a strong future for students.

### **1.1.1.3 Department of Polytechnic and Community College Education (DPCCE)**

Department of Polytechnic and Community College Education (DPCCE) were established under the Ministry of Higher Education (MOHE) since 27<sup>th</sup> Mac 2004. There are also having 27 Polytechnics and 37 Community Colleges as well as 19 community college branches which conduct various study and training programmes in the areas of engineering, commerce and services.

DPCCE aspires to be the leader in providing quality and world class technical and vocational education and training at the semi-professional level as well as a catalyst for an effective lifelong learning to fulfill the human capital development needs of the nation. DPCCE is committed to give prominence to polytechnic and community college education and training through relevant and dynamic curriculum, effective training and development programmes, and continuous quality assurance based on the National Education Philosophy. (Ministry of Higher Education, 2008)

### **1.1.2 Universiti Malaysia Sabah (UMS)**

Universiti Malaysia Sabah was established on 24<sup>th</sup> November 1994. UMS is located in Kota Kinabalu, Sabah. UMS is the ninth university being established in Malaysia. There are three schools and one centre had been established follow by the opening of UMS, that are School of Science and Technology (SST), School of Business and Economic (SPE), and also the School of Social Science (SSS) and the Centre for the Promotion of Knowledge and Language Learning (PPIB) was established at the end



of year 1994 in an attempt to produce multi-skilled graduates who are liberal in their thoughts and perspective, and who have an appreciation for national and societal values.

The first academic session had started in the mid of 1995, there were about 205 undergraduates registered into UMS. In that period, there had about 24 lecturers and also 13 administrative staffs who cooperating with 26 supporting staffs.

The following year, UMS has being increasing few schools. There are School of Engineering and Information Technology (SKTM), School of Education and Social Development (SPPS), School of Arts Studies (SPS), School of Psychology and Social Work (SPKS), School of International Tropical Forestry (SPTA), School of Food Science and Nutrition (SSMP), School of Medicine (SPU), School of Sustainable Agriculture (SPL). UMS also consists of three institute research namely Borneo Marine Research Institute, Institute for Tropical Biology and Conservation, Biotechnology Research (BRI) Institute.

UMS branch campus located in Labuan was established on 2<sup>nd</sup> January 1999 which known as Universiti Malaysia Sabah Labuan International Campus (UMSKAL). UMSKAL provides two schools which are School of Labuan Informatics Science (SSIL) and also School of Labuan International Business and Finance (SPKAL). Nowadays, there are a total about 12350 students in UMS, while the administrative staffs are also increases to 570 people.

Until now, UMS is able to provide 13 schools to students. The 13 schools are providing 64 courses for students who are qualified to enroll into UMS. While in UMSKAL, there have two of 13 schools and offered seven courses. Among the 13 schools, there has six of the schools are science stream in UMS Kota Kinabalu. As for UMSKAL, there is only one school is science stream. The schools are science streams are constituted in School of Science and technology (SST), School of Engineering and Information Technology (SKTM), School of International Tropical Forestry (SITF), School of Food Science and Nutrition (SSMP), School of Medicine (SPU), School of Sustainable Agriculture (SPL) and also School of Labuan Informatics Science (SSIL).

UMS vision is strives to be an innovative university of global standing. UMS mission is to achieve academic excellence in various fields by gaining international recognition through learning, teaching, research, and publication, social services and balanced specialization of knowledge and personality development of students resulting in high productivity and quality in the context of the society and the nation. (Universiti Malaysia Sabah, 2009)

## **1.2 Objectives of the Research**

The main objectives of the research are:

- a. To evaluate the effectiveness of the programmes, services and facilities of higher learning institution.
- b. To determine the perception of graduates on the programmes, services and facilities in their previous study environment.
- c. To determine the status of graduates within six months of their graduation.
- d. To compare the difference between programmes, services and facilities among the demographic factors.

## **1.3 Scope of the Research**

Scope of research is important for researchers to focus on the studies. By following the scope, researchers will be able to finish their studies on time. Hence, for this research, there is also having some scope that we need to follow.

All the local graduates and also international graduates from the UMS science stream students in year 2008 had been included in graduate tracer study in 2008. All the graduates are compulsory to fill up a questionnaire that has been prepared by Ministry of higher Education Malaysia. All the graduates can get the questionnaire through online and they have to send it back before the convocation. The graduates will take about 20 to 30 minutes to finish the questionnaire. The whole analysis of the studies will take time three to six months to complete start from the convocation day.

## **1.4 The Importance of Study**

Graduates tracer study system is very important for government and also for all the graduates. Through the tracer study, Ministry of Higher Education can receive relevant data such as the statistic on recent graduates' employment status and also the statistic result on graduate participation in Malaysia labor force. Other than that, it will assist government, especially the Ministry of Higher Education to manage the relevant information of graduates systematically.

Institution will also receive very useable feedback from the graduates about their experience through education, services, facilities, curriculum, knowledge, skills, and publication during their higher education life. Then, institutions can make some improvement of the weaknesses directly. For the new undergraduates, they can enjoy a better learning environment and more useful knowledge for their future.

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