

**Employability Competencies:
Employer Expectations and Employer Satisfaction of
Open University Malaysia's Graduates**

Tina Lim (PhD) Norziati Mansor	Institute of Quality, Research & Innovation
Wardah Mohamad (PhD) Tuan Fatma Tuan Sulaiman	Faculty of Business & Management
Hazalina Hashim Nor Aisyah Fadil	Faculty of Information Technology and Multimedia Communications
Norlia T Goolamally (PhD) Latifah Abdol Latif (PhD)	Faculty of Science & Technology
Saedah Muda	School of Nursing & Allied Health Sciences
Woo Tai Kwan (PhD) Santhi Raghavan (PhD)	Editorial Unit Centre for Student Management

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Open University Malaysia, Kuala Lumpur.

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EXECUTIVE SUMMARY

Objectives of the Study

The objectives of the study were to:

- (1) Find out the level of importance attributed by employers to the various employability competencies;
- (2) Find out the extent to which the employers are satisfied with OUM graduates' competencies;
- (3) Examine the extent to which the level of employer satisfaction differs from the level of importance attributed to the competencies; and
- (4) Examine the strengths and opportunities for improvement of OUM graduates with regard to employability competencies?

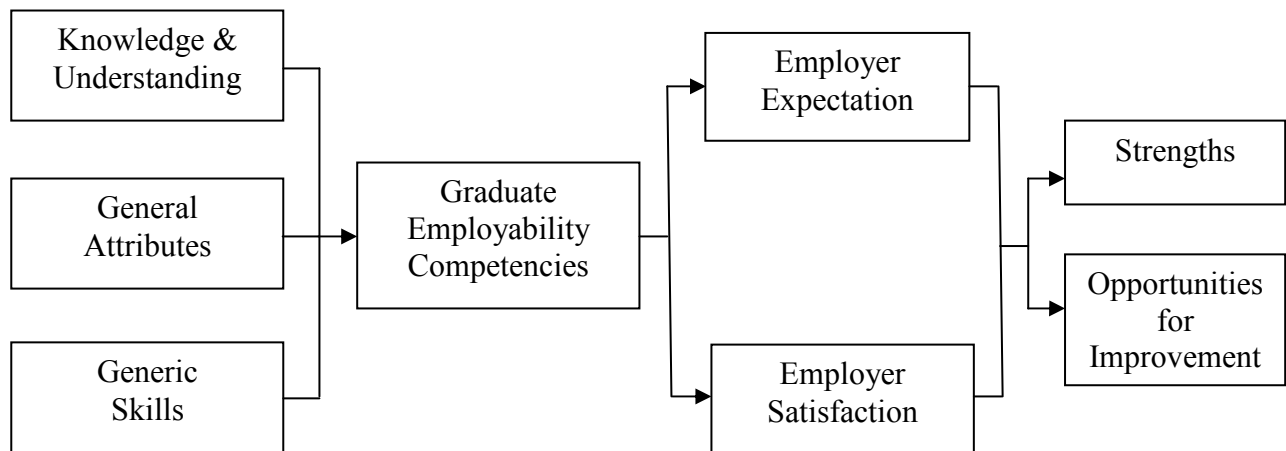


Figure 1. Framework of study

Research Design

This study utilized a quantitative approach and descriptive statistics were used to analyse the data obtained. Three dimensions of employability competencies were examined namely, Knowledge and Understanding, General Attributes, and Generic Skills. A total of Items on a five-point Likert-type scale Importance-Satisfaction Analysis charts and Gap analyses were also computed to determine areas of strengths and weaknesses as perceived by the employers.

Sample

A total of 290 out of 1088 employers of the November 2010 open market Bachelor's degree graduates responded to the questionnaires sent by postal mail. The study focused on employability competencies of graduates from FBM, FITMC, FST and SONAHS only.

Main Findings

The level of importance attributed by employers to the various employability competencies (Employer expectations)

1. All three dimensions examined, namely, Knowledge & Understanding, General Attributes and Generic Skills were considered important, with the highest mean obtained for General Attributes, followed by Knowledge & Understanding and Generic Skills.
2. Three competencies that the employers perceived to be most important in the General Attribute dimension were *Self-Discipline, Team Work* and *Positive Attitude towards Work*.
3. *Understanding of job-related information* was accorded the highest level of importance under the four-item Knowledge & Understanding dimension, followed by *Ability to translate theory into practice*
4. In the Generic Skills dimension, *Ability to set goals & allocate time to achieve them, Decision-making skill* and *Leadership skill* were rated the top three out of six items.

The extent to which the employers are satisfied with OUM graduates' competencies (Employer satisfaction)

1. The rank order for Satisfaction mirrored that obtained for Importance, that is, employers were most satisfied with OUM graduates' General Attributes, followed by Knowledge & Understanding and Generic Skills.
2. While the employers were generally satisfied with all the competencies examined, they were most satisfied with competencies under the General Attributes dimension, in particular, *Integrity, Self-discipline, Teamwork, Willingness to learn, Positive attitude towards work* and *Reliability*.
3. For the Knowledge & Understanding dimension, employers were of the opinion that the graduates' *Understanding of job-related information* and *Ability to translate theory into practice* were better than the other two competencies measured.
4. As for the Generic Skills dimension, the employers were more satisfied with the graduates' *Ability to set goals & allocate time to achieve them, Decision-making skill* and *Leadership skill* as compared to the other competencies.

The extent to which the level of employer satisfaction differs from the level of importance attributed to the competencies

1. Analysis according to the three dimensions of employability competencies revealed that Generic Skills recorded the largest mean gap (6.8%), followed by General Attributes (6.2%) and lastly Knowledge & Understanding (5.4%). The mean for Importance and that for Satisfaction were significantly different, with higher values recorded for Importance for all dimensions and all competencies in each dimension.
2. The majority of the gaps between employer expectation and satisfaction were less than 8.0 percent. This value is half of the maximum values calculated based on the empirical data obtained by Agus et al. (2011) and certainly much less than the gaps obtained by Griesel and Parker (2009). This strongly suggests that OUM's open and distance learning programmes have been successful in producing graduates who meet the expectations of their employers with regard to employability competencies.
3. The gap value obtained for English Language Proficiency was 5.4 percent, similar to that obtained for Knowledge & Understanding. It may be inferred that OUM's policy of using English Language as the medium of instruction appears to have had a positive effect of enhancing the students' English Language proficiency.
4. The gap for Computer Skills was 0.23, less than most of the gaps recorded for the various competencies. This may be attributed to the wide opportunities for the utilization of computer skills such as the use of Microsoft Office tools and searching of relevant materials from the university's Digital Library to prepare and complete assignments in the course of pursuing the different courses.
5. Competencies that had gap values larger than the mean gap for the dimension are as follows:
 - a. Knowledge & Understanding – *Knowledge in field of study*;
 - b. General Attributes – *Positive attitude towards work, Flexibility & adaptability, Self-motivation & Initiative, Self-confidence, Professional ethics and Self-discipline*
 - c. Generic Skills – *Decision-making, Ability to set goals & allocate time to achieve them and Leadership skill*. These competencies recorded the largest gaps among all the competencies examined.

These findings seem to reflect the findings of previous studies conducted by Gurcharan Singh and Garib Singh (2008), and Agus et al. (2011).

Overall Satisfaction

On the whole, majority of employers (89.2%) who responded to this survey had indicated that they are satisfied and very satisfied with OUM's graduates. Only a small percentage of employers were somewhat satisfied (9%) or not satisfied (1.8%). Findings from this study strongly suggest that open and distance learning programmes by OUM have been successful in producing graduates who meet the expectations of their employers with regard to employability competencies.

Overall, 98.4 percent of employers surveyed believe that OUM graduates are either at par or better than the new graduates from other universities. The result also reveals that 8.2 percent of the employers were of the opinion that OUM graduates were much better than new graduates from other universities.

A total 112 OUM graduates of the 290 surveyed, or 38.6 percent received a promotion upon successfully obtaining their Bachelor's degree qualifications.

Overall Strengths

Whole group analysis for the Knowledge & Understanding dimension reveal that OUM graduates met employer satisfaction with regards to *Understanding of job-related information*.

Meanwhile the strengths identified from the General Attributes dimension were *Self-discipline, Teamwork, Positive attitude towards work, Willingness to learn, Integrity, Professional ethics, Reliability, Self-confidence, Self-motivation and initiative, Accepts responsibility for consequences of action, Listening to others and Customer service*.

As for the Generic Skills dimension, on the whole OUM graduates met expectations for *Ability to set goals and allocate time to achieve them, Decision making, Leadership and Mentoring or coaching colleagues*.

Opportunities for Improvement and Recommendations by Faculty

Faculty	Opportunities for Improvement
FBM	<p>Knowledge & Understanding</p> <ul style="list-style-type: none"> • <i>Ability to translate theory into practice</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Introduce/enhance 'Work-based learning' initiatives such as internships, practicum placements and work placements • Incorporate 'case-based' approach and 'caselets' in pertinent modules • Extend application type of questions in examination questions and assignments to all subjects
	<p>General Attributes</p> <ul style="list-style-type: none"> • <i>Self-discipline</i> • <i>Ability to find and access information</i> • <i>Professional ethics</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Make available counseling/guidance sessions either face-to-face or via videos in myVLE • Improve Professional Ethics module
FITMC	<p>Knowledge & Understanding</p> <ul style="list-style-type: none"> • <i>Knowledge in the field of study</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Ensure that modules are constantly updated to include current knowledge, issues and trends
FST	<p>Knowledge & Understanding</p> <ul style="list-style-type: none"> • <i>Specific technical knowledge required for the job</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Revise/enhance content, delivery and assessment related to specific technical knowledge • Provide students ample opportunities to engage actively in applying specific technical knowledge to solve problems in a variety of work contexts, particularly those involving technology
	<p>General Attributes</p> <ul style="list-style-type: none"> • <i>Professional ethics</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Emphasize on ethics relating specifically to Sports Science / Technology Management throughout the curricula
SONAHS	<p>Knowledge & Understanding</p> <ul style="list-style-type: none"> • <i>Specific technical knowledge required for the job</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Enhance technical know-how in individual discipline-specific curricula
	<p>General Attributes</p> <ul style="list-style-type: none"> • <i>Ability to find and access information</i> • <i>Empathy</i> <p>Recommendation</p> <ul style="list-style-type: none"> • Provide more opportunities for practice in curricula content and assessment • Constantly emphasize the need for empathy throughout the programme during clinical practice

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INTRODUCTION

Human Capital Development, Lifelong Learning and Higher Education

It cannot be denied that human capital development is a vital element in any country's economic development. Available research suggests strong relationships between education, productivity and output levels (Wilson & Briscoe, 2004) and that higher education, which equips future employees with the necessary knowledge and skills, is often deemed an important tool for economic growth.

With the workplace landscape seeing vast changes and new developments in terms of job requirements, dependence on knowledge-based economies and increasing utilization of newer information and communication technology (ICT) tools, much of what was learnt in the yesteryears would be very likely become obsolete in the near future. Therefore, as Simmons-McDonald (2009) aptly emphasized, "the concept of lifelong learning has become more critical as a factor which influences the employability of individuals" (p. 2). Such is the scenario whereby even those who are currently employed would do well to further enhance or upgrade their knowledge and skills in order to continue to remain relevant in today's workforce and that of the future.

The truth as laid out by Turner (2002) in highlighting the importance of employees taking responsibility for their own learning and development is that "Lifelong learning equals lifelong earning" (p. 11). How else in this new age of global competitiveness may one expect to enhance one's own value and marketability as well as climb the corporate ladder?

It has been pointed out that "employability of graduates is a key task for higher education" (UK Lifelong Learning, 1998). Across the globe, both developed and developing countries look upon higher tertiary education as a vital link to improved economic prosperity. Likewise, making strong inroads in her goal to become a developed and high income nation by the year 2020, Malaysia has allocated substantial amount of funds and efforts at enabling education to be an active engine of growth. Private higher education institutions are being targeted alongside with the public institutions as "catalysts for industry transformation" (PEMANDU, 2010).

In stressing the critical role higher education plays in industry transformation, the Honourable Minister of Higher Education Malaysia, Dato' Seri Mohamed Khalid Nordin acknowledged that, "Today's challenging economic situation means that it is no longer sufficient for a new graduate to have knowledge of an academic subject; increasingly it is necessary for students to gain those skills which will enhance their prospects of employment. Hence, Higher Education Institutions must be responsive to these changes" (Nordin, 2009, p. 2).

The Role of Open Distance Learning in Advancing Lifelong Learning

The European Commission so aptly underscored that “Lifelong learning is also about providing second chances to update basic skills and to offer learning opportunities at more advanced levels. All this means that formal systems of provision need to become much more open and flexible, so that such opportunities can truly be tailored to the needs of the learner, or indeed the potential learner” (ESAE, 2007, p. 23).

Traditionally, higher education has been elitist in that only the ‘cream of the crop’ may obtain tertiary education at a certain age. Pursuing tertiary education also meant having to attend lessons in physical classes full time. Such a setting is no longer the one and only option in today’s world as those who missed the ‘cut’ or the chance at pursuing their studies are now given the golden opportunity to pursue their ambition and dream of higher education through open and distance learning. Amongst others, with ODL, open or flexible entry where those with lesser qualifications but with relevant work experience may enter tertiary studies and accreditation of prior learning have helped non-traditional students move along on the academic pathway. Additionally, with a flexible blend of face-to-face and online learning using ICTs, working adults may continue to work full time and study part time.

However, while it has been widely recognized that there is a dire need to widen access to educational opportunities, the emergence of open and distance learning (ODL) higher institutions in meeting that need has been scrutinized in terms of the quality of their programmes. As pointed out by Kirkpatrick (2005), “Despite a long and generally successful track record, open and distance learning is still required to prove that the quality of student learning is at least equivalent to face-to-face teaching” (p. 2).

Employability and Employability Competencies

So what does one understand by the term ‘employability’ and ‘employability skills’? The following definitions offer a glimpse of some important elements of employability together with the required skills:

Dacre Pool and Sewell (2007) defined ‘employability’ as possessing “a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful.” Employability skills have been described as skills which are not job specific, but rather those which are applicable across all domains of employment as well as all levels of employment (Gurcharan Singh & Garib Singh, 2008).

Discussing specifically in the context of higher education, Pavlin (2010) stressed that “the concept of employability should always be defined as a multidimensional concept explained on the individual level as one’s capabilities of retaining a self-rewarding job, in employers’ organisations as human resource requirements for fulfilling operational tasks and on the societal level as a system facilitator between (higher) education, the labour market and civil lives” (p. 4).

Meanwhile, ACCI (2002) as cited in Hampson and Junor (2010) described employability skills as “skills required not only to gain employment, but also to progress within an enterprise so as to achieve one’s potential and contribute successfully to enterprise strategic directions” (p.3). This definition is very much applicable to OUM graduates were generally already working prior to their graduation. In agreement to the same notion, albeit in different words, World Bank (n.d.) emphasized that “the element of employability is important for workers to remain relevant in the world of work” and that lifelong learning is crucial for the continuous development of competencies (Skill development: In the context of globalization).

Past Research on Employability Competencies

Based on a study on university curriculum and employability needs, Pandian (2010) and his team discovered that a major factor that limited graduates’ job opportunities was the glaring lack of soft skills among graduates in Malaysia. Over the past decade, reports abound of mismatch between the requirements of employers and that of university outputs, as well as cases of local university graduates lacking in generic competencies such as communication skills, problem solving skills and inter-personal skills (Quek, 2005; Juhdi, Yunus & Abu Samah, 2006; Khir, 2006; Malhi, 2009; Pandian, 2010).

Quek (2005) suggested that studies on unemployment in Malaysia attribute it to the lack of learning generic competencies in tertiary education. Graduates who lack those competencies are said to be at a disadvantage, as compared to those who possess them, when it comes to utilizing the generic competencies in carrying out their roles and responsibilities at work. While policies have been put in place for the incorporation of such competencies in Malaysian tertiary education system, a lesser degree of success has been noted with regards to its implementation and even less with respect to its impact.

Agus, Awang, Yussof and Mohamed Makhbul (2011) examined the gap between the skills perceived as important by Malaysian employers and their perception of the graduates’ performance across 534 organisations from various sectors such as manufacturing, banking, and services industries. Analyses of responses obtained from Human Resource Management and top level managers revealed that the level of satisfaction was generally below the expectation level, with a mean gap of 14.4 percent obtained for the skills examined. Wide gaps were recorded for skills such as *Decision-making and Problem solving* (17.3%), *Thinking* (17.3%), *Communication and Interpersonal* (16.9%), and *Ethical and Values* (16.4%). Wider gaps ranging from 15 percent to 34 percent were also reported by Griesel and Parker (2009) in their study examining the perception differential between what employers expected from South African graduates and their performance at work.

Meanwhile, findings obtained by Gurcharan Singh and Garib Singh (2008) revealed that employers rated graduates significantly much lower than that by the graduates themselves on all employability skills examined. In terms of ranking of employability skills according to importance, the rank order obtained for both groups of respondents was the same. The top most was Problem solving and Adaptability skills, followed by

Interpersonal and Team skills, Personal organization and Time management skills, English language proficiency, Information, communication and technology skills, Leadership skills, and lastly Communication skills.

In summarizing the literature that was reviewed, it is clear that with the current trend of globalisation, the pervasiveness of technology use at the workplace as well as increasing emphasis on the importance of lifelong learning in ensuring the workforce is always updated on prevailing changes in the industry, higher education providers have to constantly innovate to ensure that the graduates they produce, fit industry requirements and expectations and are highly employable.

Like all other universities, either conventional or otherwise, Open University Malaysia, an open and distance learning institution, is cognizant of the importance of producing graduates who achieve learning outcomes and are also successful in attaining the 'soft skills' identified by MOHE. Having been in 'the business' of 'producing' graduates for a period of ten years now, it is timely that a study be conducted to examine employer expectations and satisfaction with regard to employability competencies possessed by OUM graduates so that strengths and opportunities for improvement may be identified.

OBJECTIVES OF STUDY

The overall objective of this study was to examine the employability competencies employers consider important to the jobs held by OUM graduates from the open market Bachelor programmes, as well as the extent to which they were satisfied with their competencies.

The specific objectives of this study were to:

- (1) Find out the level of importance attributed by employers to the various employability competencies;
- (2) Find out the extent to which the employers are satisfied with OUM graduates' competencies;
- (3) Examine the extent to which the level of employer satisfaction differs from the level of importance attributed to the competencies; and
- (4) Examine the strengths and opportunities for improvement of OUM graduates with regard to employability competencies they possess?

RESEARCH QUESTIONS

In relation the objectives of the research, the following research questions were examined:

- (1) What is the level of importance attributed by employers to the various employability competencies?
- (2) To what extent are the employers satisfied with OUM graduates' competencies?
- (3) To what extent does employer satisfaction with OUM graduates' competencies differ from the importance employers attribute to the competencies?
- (4) What are the strengths and opportunities for improvement of OUM graduates with regard to employability competencies?

METHODOLOGY

Research Design

This study utilized a quantitative approach whereby printed survey questionnaires were sent by postal mail to employers of the November 2010 graduates. Names and postal addresses of the employers were initially sought from the graduands using an online submission of data prior to the November convocation. Stamped, self-addressed envelopes were enclosed together with the questionnaires to facilitate the return of the completed surveys.

Descriptive statistics were used to analyse the research findings. Importance-Satisfaction Analysis charts and Gap analyses were also computed to determine areas of strengths and weaknesses as perceived by the employers.

Instrumentation

Data for the study were collected using a paper and pencil survey questionnaire which was developed using Remark Office software and responses were scanned digitally rather than using manual data entry. The questionnaire consisted of five sections:

- (1) Section A: Demography;
- (2) Section B: Knowledge and Understanding;
- (3) Section C: General Attributes;
- (4) Section D: Generic Skills; and
- (5) Section E: Overall Satisfaction

The Demographic Section includes the following items related to the profile of the employers' organization:

- (1) Type of organization;
- (2) Category of industry;
- (3) Number of employees in the organization;
- (4) Number of new graduates recruited over the past one year; and
- (5) Location of organization.

The items in Sections B, C and D of the original questionnaire were largely adapted from those validated and utilized in the 2005 Noel-Levitz Employer Satisfaction Survey (Kleinke, 2006). The respondents were required to rate the level of importance on a five-point Likert-type scale (1) for *Not at all important*; (2) for *Not very important*; (3) for *Somewhat important*; (4) for *Important*; and (5) for *Very important*. A five-point Likert-type scale ranging from (1) for *Always fails to meet*, (2) for *Frequently fails to meet*, (3) for *Just meets*, (4) for *Frequently meets*, and (5) for *Always meets*, was also offered for the respondents to rate their level of satisfaction with the performance of OUM

graduates. For both importance and satisfaction, the option of “Not applicable” was also given.

Based on data obtained from the original questionnaire, Exploratory Factor Analysis was run to examine the underlying structure of the items in the instrument. The 38-item Importance-Satisfaction scale was subjected to Principal Component Analysis (PCA) using SPSS version 17. PCA using orthogonal varimax rotation revealed that 28 items loaded on three components (Knowledge & Understanding, General Attributes and Generic Skills respectively), explaining 35.04 percent, 16.31 percent and 11.06 percent of the variance respectively. Total variance explained was 62.41 (See Table 1).

Meanwhile, upon examining the internal consistency of the items, it was found that the Cronbach alpha coefficient for the Knowledge and Understanding dimension was 0.77, for the General Attributes dimension was 0.96 and for the Generic Skills dimension was 0.87. These alpha values indicate that as a whole, the Importance-Satisfaction scale has reasonably good internal consistency (DeVellis 1991).

Table 1
Dimensions, Number of items, Percent Variance and Reliability of Questionnaire

Dimension	Number of Items	Percent Variance	Cronbach's Alpha
Knowledge and Understanding	4	35.04	0.77
General Attributes	18	16.31	0.96
Generic Skills	6	11.06	0.87

Three items that were not loaded on any of the three dimensions above but were used in the data analyses are those related to:

- (1) English Language Proficiency;
- (2) Bahasa Melayu Proficiency; and
- (3) Knowledge of specific computer applications required for the job.

Population and Sample

This write-up only reports the data obtained pertaining to the graduates for the Bachelor degree (with Honours) for the open market programmes from the Faculty of Business and Management (FBM), the Faculty of Information Technology and Multimedia Communications (FITMC), the Faculty of Science and Technology (FST), and the School of Nursing and Applied Health Sciences (SONAHS). Two other faculties namely the Faculty of Applied Social Sciences (FASS) and the Faculty of Education and Languages (FEL) were not included as FASS did not as yet have any graduates for the November 2010 convocation while most of FEL graduates were those sponsored by the Ministry of Education.

The programmes from the four faculties which were included for this study are as follows:

- (1) FBM: Bachelor of Accounting (BAC), Bachelor of Business Administration (BBA), Bachelor of Management (BIM), Bachelor of Human Resource Management (BHRM);
- (2) FITMC: Bachelor of Information Technology (BIT), Bachelor of Information Technology and Management (BITM), Bachelor of Multimedia Communications (BMC);
- (3) FST: Bachelor of Sports Science (BSS) and Bachelor of Technology Management (BTM); and
- (4) SONAHS: Bachelor of Nursing Science (BNS).

The total number of graduates for the programmes listed above, together with the total number of surveys sent, complete surveys received, and response rates are as shown in Table 2. Out of a total of 1088 Bachelor's degree graduates for the November 2010 semester, the research team only managed to obtain 1058 complete addresses via the online system. Out of that number, only 290 complete surveys were received, giving an overall response rate of 27.41 percent. This meets a confidence level of 95 percent, with a margin of error of five percent.

Table 2
Response Rates and Confidence Levels

Faculty	Total number of graduates	Total number of surveys sent	Complete surveys received	Response rate (Percent)	Confidence Level (Percent)
FBM	603	579	141	24.35	80
FITMC	214	210	61	29.05	65
FST	80	80	23	28.75	45
SONAHS	191	189	65	34.39	70
TOTAL	1088	1058	290	27.41	95

Calculation of response rates for the various groups as well as the overall sample indicate that response rates ranged from approximately 25 percent to approximately 35 percent. This appears to be within the range for organizational level research as reported by Baruch and Holtom (2008) and the Florida Center for Nursing (2008). In their analysis of 1607 studies in 17 refereed journals between 2000 and 2005 in the United States of America, Baruch and Holtom registered an average response rate of 37.2 with a standard deviation of 18.8 while the Florida Center for Nursing reported that such survey recorded an average response rate of 21 percent. While it is generally agreed that the response rates are one of many indicators of sample quality and low response rates present a limitation to the extent to which the findings may be generalized, data based on the sample sizes were still analysed and reported as it was considered to be of good value as feedback given by the employers were completely voluntary in nature.

Confidence levels obtained for FBM and SONAHS are 80 percent and 70 percent respectively. This indicates that the probability of the results of the study representing the actual populations is relatively high. Meanwhile, the confidence level of the sample for FST is found to be 45 percent while that of FITMC is 65 percent. These findings are therefore interpreted with caution.

Operational Definitions

Open market programmes

Programmes where the students are not sponsored by the Teacher Education Division, Ministry of Education, Malaysia

Employer

The employer is the immediate supervising officer or super ordinate of the OUM graduate in this study

Knowledge & Understanding

The graduate's ability to gain meaning or essence from the concepts he or she has acquired or experienced

General Attributes

Attributes which the graduates use everyday and which an employer expects them to know

Generic Skills

Transferable skills, employability skills or life skills that are supposed to contribute to lifelong and continuous learning

Data Analysis

In analyzing the data obtained, the descriptive statistics which were computed are as follows:

- (1) Demographic data: Frequency and Percentage
- (2) Importance and Satisfaction with regard to Employability Competencies: Mean and standard deviation,
- (3) Importance-Satisfaction Quadrant Analysis conducted at two levels; by dimensions and by competencies in each dimension, and
- (4) Gap analysis of Importance versus Satisfaction for all items in the three dimensions examined.

For the level of importance, values of 4.00 indicate employers consider the competency important. As for the level of satisfaction, values of 3.00 indicate moderate levels of satisfaction as the employees' competencies just meet their expectations while values of 4.00 and above indicate higher levels of satisfaction.

In the Importance-Satisfaction Quadrant Analysis which was used to visualize the relationship between importance and satisfaction ratings, the overall mean for satisfaction was plotted against the overall mean for importance, for each dimension and competency. Interpretation for each of the four quadrants is as follows:

- (1) If the plotted values fall in the upper right quadrant (high importance and high satisfaction), the items are considered strengths;
- (2) If the plotted values fall in the upper left quadrant (high importance but relatively lower satisfaction), the items draw attention to opportunities for improvement;
- (3) If the plotted values fall in the lower left quadrant (relatively lower importance and relatively lower satisfaction), the items may be considered of low priority; and
- (4) If the plotted values fall in the lower right quadrant (relatively lower importance and high satisfaction), the items are considered "overkill" items, meaning to say effort has exceeded expectations.

Since the quadrant analysis does not explicitly identify the gaps that may exist between importance and satisfaction, the gap analysis technique is also conducted. The gap between importance and satisfaction is measured by subtracting the mean score for satisfaction from the mean score for importance. A two-tailed paired samples t-test performed at a significance level of $p < 0.05$. Positive values indicate that the satisfaction level is lower than the importance level and vice versa. Items with large positive gaps are indicative of problems that need correction or improvement while small values signify strengths.

FINDINGS AND DISCUSSION

Profile of Employers

Table 3
Analysis of Employers According to Type of Industry

Type of Industry	FBM graduates	FITMC graduates	FST graduates	SONAHS graduates	Overall
Agriculture	4	1	0	0	5
Business	8	0	0	0	8
Construction	3	1	1	0	5
Education	16	30	15	13	74
Hospitality	2	0	0	5	7
Healthcare	2	0	0	36	38
ICT	1	4	1	0	6
Manufacturing	15	5	2	0	22
Service	41	8	1	1	51
Others	43	7	3	0	53
<i>Not stated</i>	6	5	0	10	21
Total	141	61	23	65	290

As may be seen from Table 3, overall the majority of the OUM graduates (74) were employed in the Education domain. Analysis by faculty shows that this is also true for FST and FITMC. On the other hand, most of the graduates from FBM were in the Service domain while those from SONAHS were in the Healthcare domain.

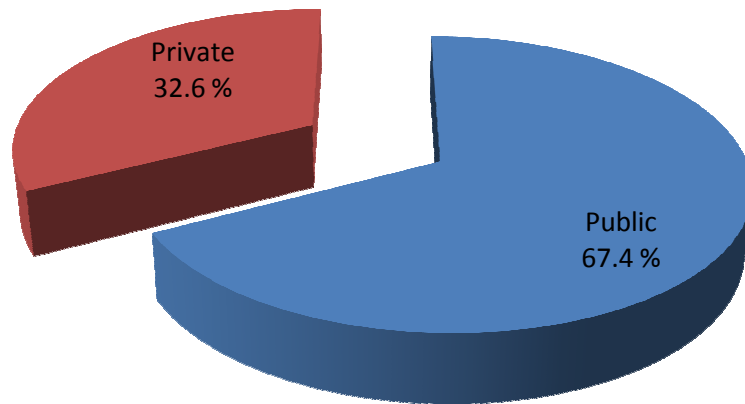


Figure 2. Analysis of organizations according to sector

Analysis according to sector indicates that approximately two thirds or 67.4 percent of the graduates were employed in the public sector while 32.6 percent were in the private sector (Refer to Figure 2). This suggests that the public sector is an important market for OUM's open market programmes.

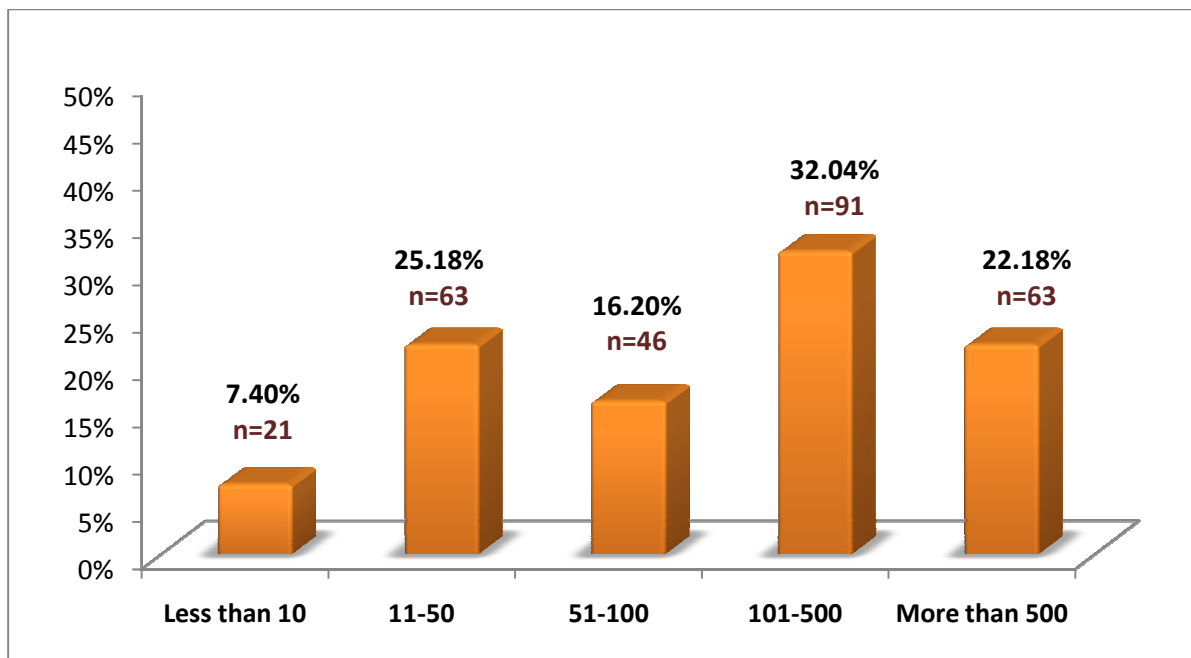


Figure 3. Size of organization

Data depicted in Figure 2 show that approximately 50 percent of the organizations had more than 100 employees. A very small percentage (7.4%) had less than 10 employees.

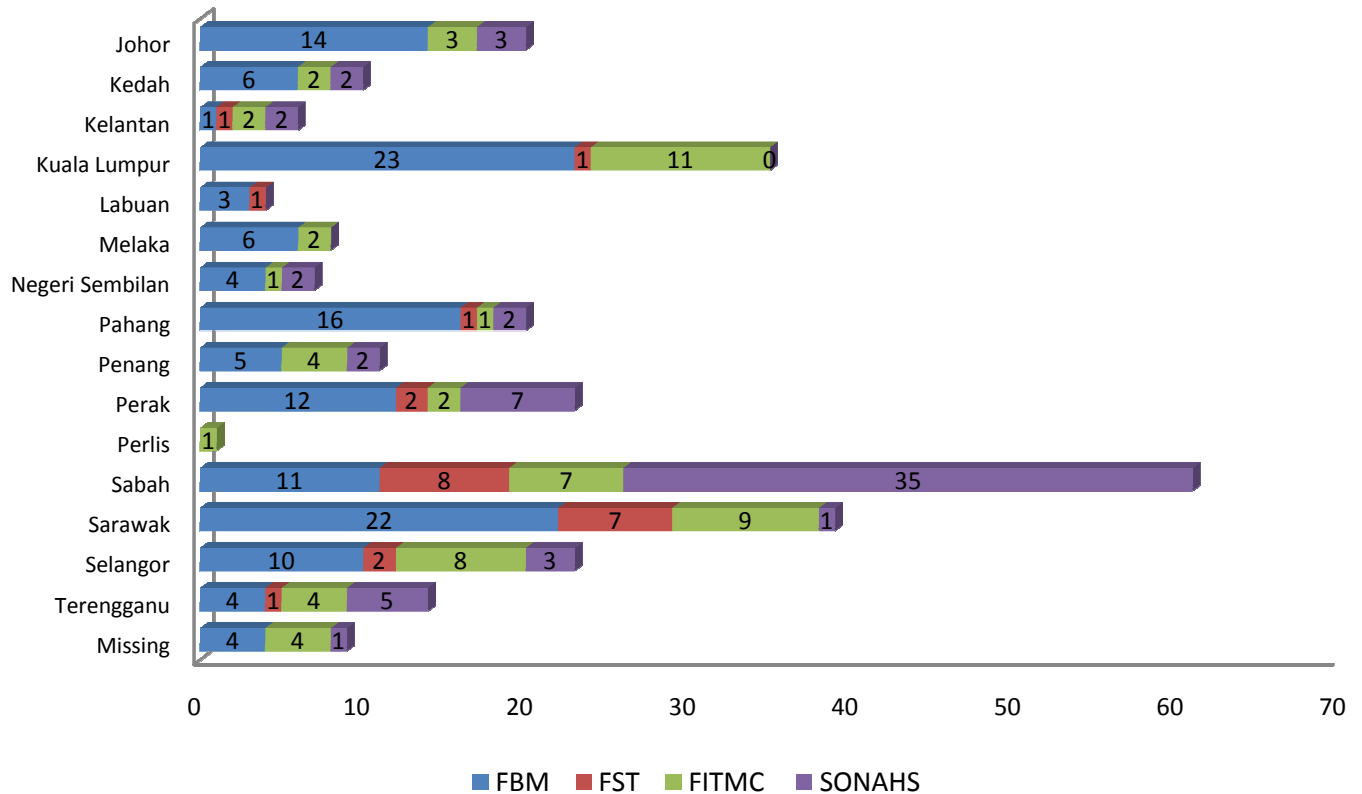


Figure 4. Location of respondents

Analysis of respondents by location as seen in Figure 4 indicates that the majority (61) of OUM graduates in this study (and thus their respective employers), particularly the SONAHS graduates were located in Sabah. The next highest number was for Sarawak (39), followed by Kuala Lumpur (35). Considering that most if not all of OUM students are working adults at the time of their studies, it appears that those in East Malaysia have chosen OUM as a relevant pathway to lifelong learning and ‘lifelong earning’ and OUM have succeeded in making their dream a reality.

Research Question 1:

What is the level of importance attributed by employers to the various employability competencies?

Based on the overall means obtained for each of the three dimensions, it was found that employers accorded the highest level of importance to General Attributes (mean = 4.46, SD = 0.52, n = 285), followed by Knowledge and Understanding (mean = 4.02, SD = 0.52, n = 289) and lastly Generic Skills (mean = 3.93, SD = 0.68, n = 287).

Table 4.

Level of Importance Employers Attribute to the Graduates' Employability Competencies

Dimension	Mean	SD	n
Knowledge & Understanding	4.02	0.52	289
General Attributes	4.46	0.52	285
Generic Skills	3.93	0.68	287

Meanwhile, as may be seen from Table 5, based on the means obtained for the Knowledge and Understanding dimension, the highest mean was for *Understanding of job-related information* (mean = 4.17, SD = 0.68). This was followed by *Ability to translate theory into practice* (mean = 4.04, SD = 0.73), *Knowledge in employee's field of study* (mean = 4.03, SD = 0.70) and lastly *Specific technical knowledge required for the job* (mean = 3.91, SD = 0.80).

As for the rank order of the 18 items in the General Attributes dimension, *Self-discipline*, *Teamwork*, *Positive attitude towards work*, *Willingness to learn* were the top four attributes deemed important by employers. Meanwhile *Creativity and innovation* was listed last in order of importance.

In the Generic Skills dimension, *Ability to set goals & allocate time to achieve them*, *Decision-making skill* and *Leadership skill* were rated the top three out of six items. *Entrepreneurial skill* was ranked lowest in terms of importance for this dimension as well as for the whole instrument.

Table 5.
Employability Competencies: Rank Order for Importance

Dimension & Items	Rank order	Mean	SD	n
Knowledge and Understanding				
Understanding of job-related information	1	4.17	0.68	284
Ability to translate theory into practice	2	4.04	0.73	278
Knowledge in employee's field of study	3	4.03	0.70	282
Specific technical knowledge required for the job	4	3.91	0.80	276
General Attributes				
Self-discipline	1	4.45	0.63	287
Teamwork	2	4.43	0.67	286
Positive attitude towards work	3	4.43	0.66	287
Willingness to learn	4	4.41	0.59	287
Integrity	5	4.40	0.64	286
Professional ethics	6	4.34	0.64	288
Reliability	7	4.30	0.69	285
Self-confidence	8	4.28	0.65	287
Self-motivation & initiative	9	4.27	0.71	286
Accepts responsibility for consequences of action	10	4.25	0.66	286
Listening to others	11	4.23	0.69	287
Customer service	12	4.23	0.74	282
Flexibility & adaptability	13	4.17	0.63	285
Ability to reflect on own performance	14	4.16	0.69	286
Ability to find and access information	15	4.15	0.71	287
Empathy	16	4.13	0.73	285
Written communication	17	4.13	0.69	287
Creativity & innovation	18	3.93	0.75	287
Generic Skills				
Ability to set goals & allocate time to achieve them	1	4.11	0.75	279
Decision-making	2	4.10	0.76	284
Leadership	3	4.01	0.83	283
Mentoring/coaching colleagues	4	3.94	0.83	276
Management of resources	5	3.85	0.87	267
Entrepreneurial	6	3.67	0.88	254

Research Question 2:

To what extent are the employers satisfied with OUM graduates' competencies?

Table 6.

Level of Satisfaction of Employers with Regards to the Graduates' Employability Competencies

Dimension	Mean	SD	n
Knowledge & Understanding	3.75	0.64	277
General Attributes	3.95	0.60	281
Generic Skills	3.59	0.74	280

Based on the overall means obtained for the three dimensions examined (see Table 6), the dimension with the highest mean for satisfaction was General Attributes (mean = 3.95, SD = 0.60, n = 281), followed by Knowledge & Understanding (mean = 3.75, SD = 0.64, n = 277) and lastly Generic Skills (mean = 3.59, SD = 0.74, n = 280). It is noted that rank order for the dimensions examined for Satisfaction parallels that of the rank order obtained for Importance.

Similar to the Importance scores, the highest means obtained for Satisfaction, were for competencies under the General Attribute dimension namely, *Integrity, Self-discipline, Teamwork, Willingness to learn, Positive attitude towards work and Reliability*. Meanwhile, for the Knowledge & Understanding dimension, the means obtained for *Understanding of job-related information* and *Ability to translate theory into practice* were higher than the other two competencies measured. As for the Generic Skills dimension, *Ability to set goals & allocate time to achieve them, Decision-making skill* and *Leadership skill* were rated higher than the other competencies.

Table 7.
Employability Competencies: Rank Order for Satisfaction

Dimension & Items	Rank order	Mean	SD	n
Knowledge and Understanding				
Understanding of job-related information	1	3.89	0.69	276
Ability to translate theory into practice	2	3.77	0.78	272
Knowledge in employee's field of study	3	3.72	0.72	275
Specific technical knowledge required for the job	4	3.67	0.76	267
General Attributes				
Integrity	1	4.14	0.69	277
Self-discipline	2	4.14	0.79	279
Teamwork	3	4.13	0.78	280
Willingness to learn	4	4.11	0.71	278
Positive attitude towards work	5	4.08	0.78	279
Professional ethics	6	4.02	0.72	279
Reliability	7	4.00	0.77	278
Self-confidence	8	3.95	0.75	279
Accepts responsibility for consequences of action	9	3.94	0.73	278
Listening to others	10	3.94	0.70	278
Self-motivation & initiative	11	3.94	0.78	278
Customer service	12	3.94	0.76	276
Ability to reflect on own performance	13	3.87	0.80	279
Empathy	14	3.87	0.79	277
Written communication	15	3.84	0.71	279
Flexibility & adaptability	16	3.84	0.77	277
Ability to find and access information	17	3.83	0.82	279
Creativity & innovation	18	3.63	0.83	277
Generic Skills				
Ability to set goals & allocate time to achieve them	1	3.72	0.82	272
Decision-making	2	3.70	0.82	276
Leadership	3	3.65	0.85	275
Mentoring/coaching colleagues	4	3.61	0.88	269
Management of resources	5	3.59	0.84	257
Entrepreneurial	6	3.47	0.83	245

Research Question 3:

To what extent does employer satisfaction with OUM graduates' competencies differ from the importance employers attribute to the competencies?

As may be seen from Table 8, for all three dimensions examined, it was found that the means obtained for Importance were statistically significantly higher than the means for Satisfaction. This echoes findings by Agus (2011) whereby perception differentials were noted when comparing employer satisfaction and importance, with higher scores obtained for Importance as compared to Satisfaction. Generic Skills recorded the largest mean gap of 0.34, next was General Attributes (mean gap = 0.31) and lastly Knowledge & Understanding (mean gap = 0.27).

Table 8.

Gap Analysis: Employability Competencies According to Dimensions

Dimension	Importance		Satisfaction		Gap	t-value	n	Sig 2 tailed
	Mean	SD	Mean	SD				
Knowledge & Understanding	4.02	0.59	3.75	0.64	0.27	8.58	276	0.00
General Attributes	4.26	0.52	3.95	0.60	0.31	10.39	280	0.00
Generic Skills	3.93	0.68	3.59	0.74	0.34	8.98	279	0.00

Gap analysis of means obtained for *Language Proficiency* and *Computer Skills* indicated that for *English Language Proficiency* and *Computer skills*, the mean obtained for Importance was significantly higher than that for Satisfaction (Refer to Table 9). The gap for *English Language proficiency* was 0.27 while the gap for *Computer Skills* was 0.23. It may be inferred that OUM's policy of using English Language as the medium of instruction appears to have had a positive effect of enhancing the students' English Language proficiency. Also, the small gap obtained for *Computer Skills* may be attributed to the wide opportunities for the utilization of computer skills such as the use of Microsoft Office tools and searching of relevant materials from the university's Digital Library to prepare and complete assignments in the course of pursuing the different courses. Meanwhile the gap for *Bahasa Melayu Proficiency* was not significant.

Table 9.
Gap Analysis: Language Proficiency and Computer Skills

Aspect	Importance		Satisfaction		Gap	t-value	n	Sig 2 tailed
	Mean	SD	Mean	SD				
English Language Proficiency	3.88	0.78	3.61	0.64	0.27	6.45	277	0.00
Bahasa Melayu Proficiency	4.38	0.73	4.30	0.69	0.08	2.46	275	0.07
Computer skills	3.97	0.72	3.74	0.75	0.23	5.75	273	0.00

As shown in Table 10, the largest gap in the Knowledge and Understanding dimension was for *Knowledge in employee's field of study* (gap = 0.30). This is the only item in the Knowledge and Understanding dimension where the gap is higher than the mean gap of 0.27 obtained for this dimension. This was followed by *Understanding of job-related information* (gap = 0.27) and *Ability to translate theory into practice* (gap = 0.26). The smallest gap was for *Specific technical knowledge required for the job* (gap = 0.22). The differences between the mean obtained for Importance and the mean for Satisfaction for all items were significantly different.

Table 10.
Gap Analysis: Knowledge and Understanding Items

Item	Importance		Satisfaction		Gap	t-value	n	Sig 2 tailed
	Mean	SD	Mean	SD				
Knowledge in employee's field of study	4.02	0.71	3.72	0.72	0.30	7.76	274	0.00
Understanding of job-related information	4.16	0.67	3.89	0.69	0.27	6.76	275	0.00
Ability to translate theory into practice	4.03	0.71	3.77	0.77	0.26	6.15	268	0.00
Specific technical knowledge required for the job	3.89	0.79	3.68	0.74	0.22	4.98	265	0.00

Of the 18 items in the General Attributes dimension, one third of them recorded gaps which were larger than the mean gap of 0.31 obtained for the dimension (Refer to Table 11). The items were *Positive attitude towards work* (gap = 0.35), *Flexibility & adaptability* (gap = 0.34), *Self-motivation & Initiative* (gap = 0.34), *Self-confidence* (gap = 0.33), *Professional ethics* (gap = 0.32) and *Self-discipline* (gap = 0.32).

Table 11.
Gap Analysis: General Attribute Items

Item	Importance		Satisfaction		Gap	t-value	n	Sig 2 tailed
	Mean	SD	Mean	SD				
Positive attitude towards work	4.43	0.67	4.08	0.77	0.35	8.47	278	0.00
Flexibility & Adaptability	4.17	0.62	3.83	0.77	0.34	7.82	276	0.00
Self-motivation & Initiative	4.27	0.71	3.94	0.78	0.34	8.42	277	0.00
Self-confidence	4.28	0.65	3.95	0.75	0.33	8.41	278	0.00
Professional ethics	4.35	0.64	4.02	0.72	0.33	8.77	278	0.00
Self-discipline	4.45	0.63	4.13	0.79	0.32	7.53	278	0.00
Ability to find and access information	4.14	0.70	3.83	0.82	0.31	7.51	278	0.00
Accepts responsibility for consequences of actions	4.25	0.66	3.94	0.73	0.31	7.86	277	0.00
Listening to others	4.25	0.67	3.94	0.70	0.31	7.86	277	0.00
Creativity & Innovation	3.93	0.74	3.63	0.83	0.31	7.20	276	0.00
Teamwork	4.43	0.66	4.12	0.78	0.31	7.47	278	0.00
Willingness to learn	4.41	0.59	4.11	0.71	0.30	8.20	277	0.00
Written communication	4.14	0.68	3.84	0.72	0.30	7.37	278	0.00
Customer service	4.23	0.74	3.93	0.76	0.29	7.46	274	0.00
Reliability	4.3	0.70	4.01	0.75	0.29	7.65	276	0.00
Ability to reflect on own performance	4.16	0.69	3.87	0.80	0.29	6.43	277	0.00
Empathy	4.13	0.73	3.87	0.79	0.26	7.30	276	0.00
Integrity	4.40	0.64	4.14	0.69	0.26	7.52	276	0.00

Meanwhile, in Generic Skills dimension, three out of six items recorded higher gaps than the mean gap of 0.34 for that dimension (See Table 12). The three items were *Decision-making* (gap = 0.40), *Ability to set goals & allocate time to achieve them* (gap = 0.40), and *Leadership* (gap = 0.36). The gaps for these items were also the largest for all competencies examined.

Table 12.
Gap Analysis: Generic Skills Items

Item	Importance		Satisfaction		Gap	t-value	n	Sig 2 tailed
	Mean	SD	Mean	SD				
Decision-making	4.10	0.77	3.70	0.83	0.40	9.09	273	0.00
Ability to set goals & allocate time to achieve them	4.12	0.74	3.72	0.82	0.40	8.84	269	0.00
Leadership	4.01	0.83	3.65	0.85	0.36	8.11	273	0.00
Mentoring/coaching colleagues	3.95	0.83	3.61	0.88	0.34	7.11	265	0.00
Management of resources	3.85	0.87	3.59	0.84	0.25	5.60	254	0.00
Entrepreneurial	3.69	0.85	3.48	0.83	0.21	4.57	241	0.00

Research Question 4:

What are the strengths and opportunities for improvement of OUM graduates with regard to employability competencies they possess?

Based on the quadrant analyses conducted based on all the responses received from the employers for the three dimensions, the overall means for both Importance and Satisfaction with regard to General Attributes fell in the top right quadrant, which indicates High importance and High Satisfaction (See Figure 5). The overall means for General Skills fell in the bottom left quadrant (Low Importance, Low Satisfaction) while those for Knowledge & Understanding were in the bottom right quadrant (Low Importance, High Satisfaction) Exceeding expectations).

This suggests that of the three dimensions examined, employers found OUM graduates to be strong in their General Attributes, and that the graduates' Knowledge & Understanding exceeded their expectations, while General Skills were of Low Importance.

Importance-Satisfaction Analysis of Knowledge & Understanding, General Attributes and Generic Skills



Figure 5. Whole group Importance-Satisfaction Analysis by dimensions

Findings obtained from the quadrant analyses by faculty (as shown in Figures 6, 7, 8 and 9) is as summarized in Table 13.

Table 13.
Summary of Quadrant Analyses Findings across Faculties for All Dimensions

Faculty	High Importance High Satisfaction (Strength)	High Importance Low Satisfaction (Opportunities for Improvement)	Low Importance High satisfaction (Exceeding expectations)	Low Importance Low Satisfaction (Low Priority)
FBM	General Attributes			Knowledge & Understanding
FITMC	General Attributes		Knowledge & Understanding	Generic Skills Generic Skills
FST	General Attributes			Generic Skills
SONAHS	Knowledge & Understanding General Attributes			Generic Skills
	Knowledge & Understanding			

This reveals that:

- (1) General Attributes were the strengths of graduates from all four faculties;
- (2) Besides General Attributes, FST and SONAHS graduates met their employers' expectations in terms of Knowledge and Understanding;
- (3) Generic Skills were of low priority according to the employers;
- (4) FITMC graduates exceeded the employers' expectations of their Knowledge and Understanding.

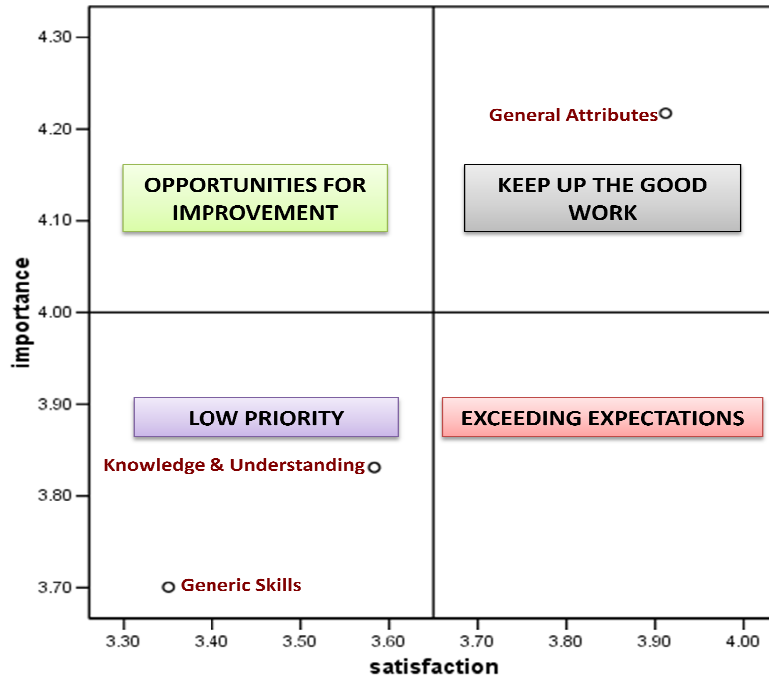


Figure 6. Importance-Satisfaction Analysis by dimensions (FBM graduates)

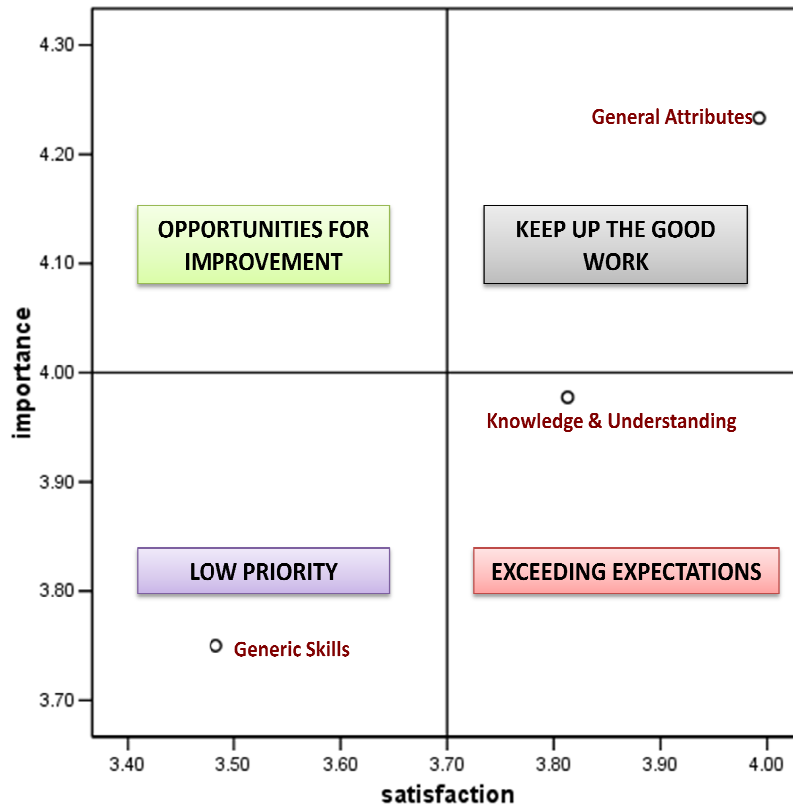


Figure 7. Importance-Satisfaction Analysis by dimensions (FITMC graduates)



Figure 8. Importance-Satisfaction Analysis by dimensions (FST graduates)

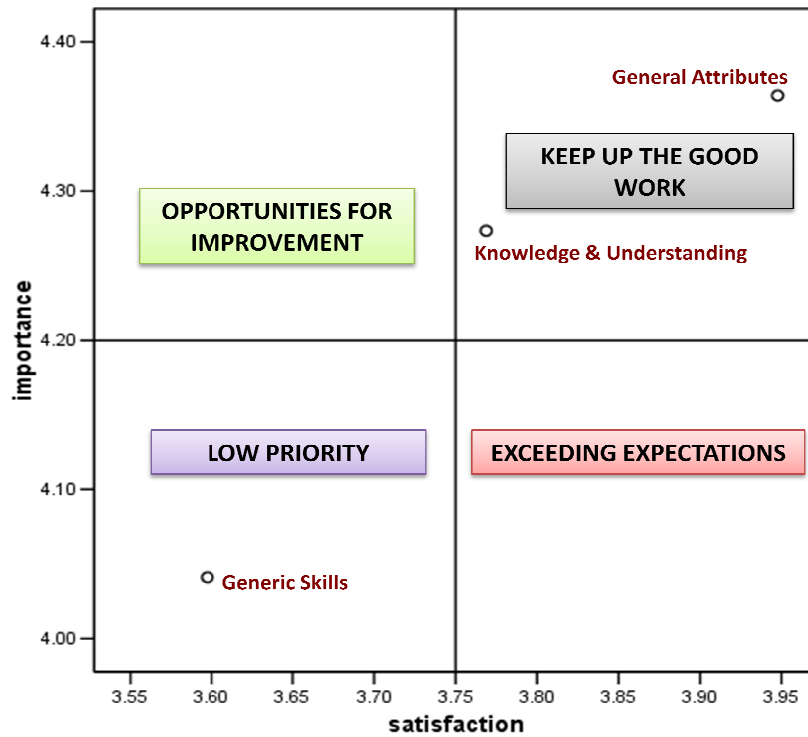


Figure 9. Importance-Satisfaction Analysis by dimensions (SONAHS graduates)

Whole group quadrant analysis for the Knowledge & Understanding dimension indicates that OUM programmes did well in producing graduates with a good understanding of job-related information since the means fell in the High Importance, High Satisfaction quadrant (Refer to Figure 10).

Competencies that were of Low Importance and Low Satisfaction were:

- (1) *Ability to translate theory into practice;*
- (2) *Knowledge in the field of study; and*
- (3) *Specific technical knowledge related to the job.*

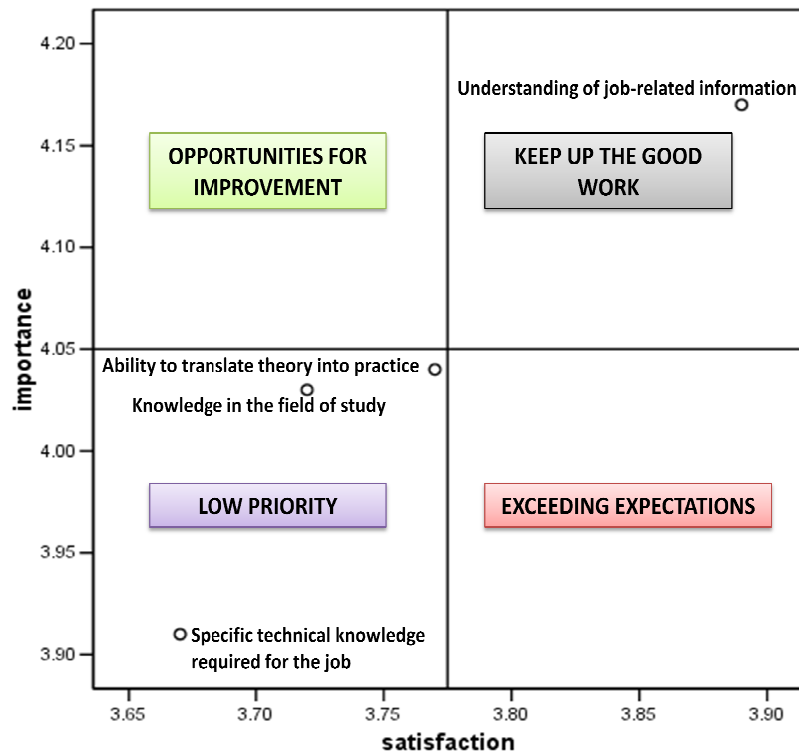


Figure 10. Whole group Importance-Satisfaction Analysis by items for Knowledge and Understanding dimension

Findings from the quadrant analyses for competencies under the Knowledge & Understanding dimension by faculty (as shown in Figures 10, 11, 12 and 13) are summarized in Table 14.

Table 14.
Summary of Quadrant Analyses Findings across Faculties for Knowledge & Understanding Dimension

Faculty	High Importance High Satisfaction (Strength)	High Importance Low Satisfaction (Opportunities for Improvement)	Low Importance High satisfaction (Exceeding expectations)	Low Importance Low Satisfaction (Low Priority)
FBM	Specific technical knowledge required for the job	Ability to translate theory into practice	Knowledge in the field of study	Understanding of job-related information
FITMC	Understanding of job-related information	Knowledge in the field of study		Ability to translate theory into practice Specific technical knowledge required for the job
FST	Ability to translate theory into practice	Specific technical knowledge required for the job	Knowledge in the field of study Understanding of job-related information	
SONAHS	Understanding of job-related information Ability to translate theory into practice	Specific technical knowledge required for the job		Knowledge in the field of study

- (1) FBM graduates' strength was *Specific technical knowledge required for the job*. The graduates also exceeded employers' expectations with respect to *Knowledge in the field of study*. Meanwhile, the competency that needed to be improved on is *Ability to translate theory into practice*. Of low priority according to the employers was *Understanding of job-related information*;
- (2) Meanwhile, FITMC graduates' strength was having a good *Understanding of job-related information*, while *Knowledge in the field of study* was identified as a weakness. In the Low priority list were *Ability to translate theory into practice* and *Specific technical knowledge required for the job*;
- (3) On the other hand, the competency which employers of FST graduates deemed as strength was *Ability to translate theory into practice*. Exceeding employer expectations were *Knowledge in the field of study* and *Understanding of job-*

related information. *Specific technical knowledge required for the job* was a competency that needed improvement; and

- (4) As for SONAHS graduates, employers were of the opinion that their strengths were in *Understanding of job-related information* and *Ability to translate theory into practice*. The competency that needed improvement was *Specific technical knowledge required for the job* and the competency considered a low priority was *Knowledge in the field of study*.

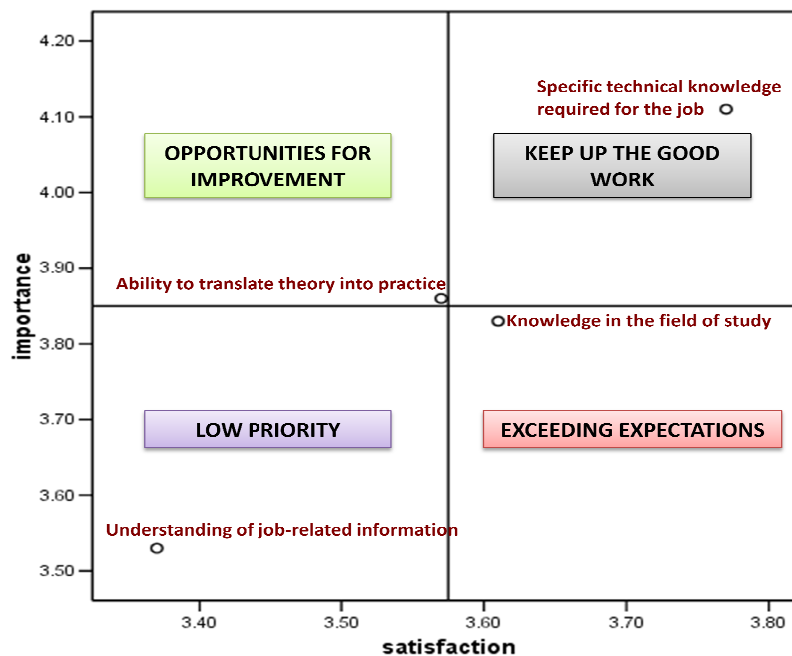


Figure 11. Importance-Satisfaction Analysis by items for Knowledge and Understanding dimension (FBM graduates)

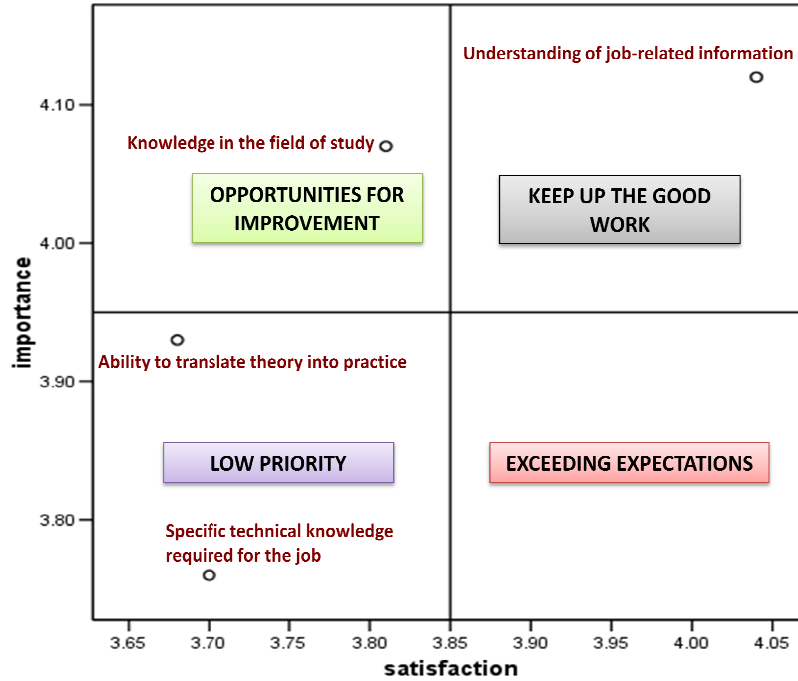


Figure 12. Importance-Satisfaction Analysis by items for Knowledge and Understanding dimension (FITMC graduates)

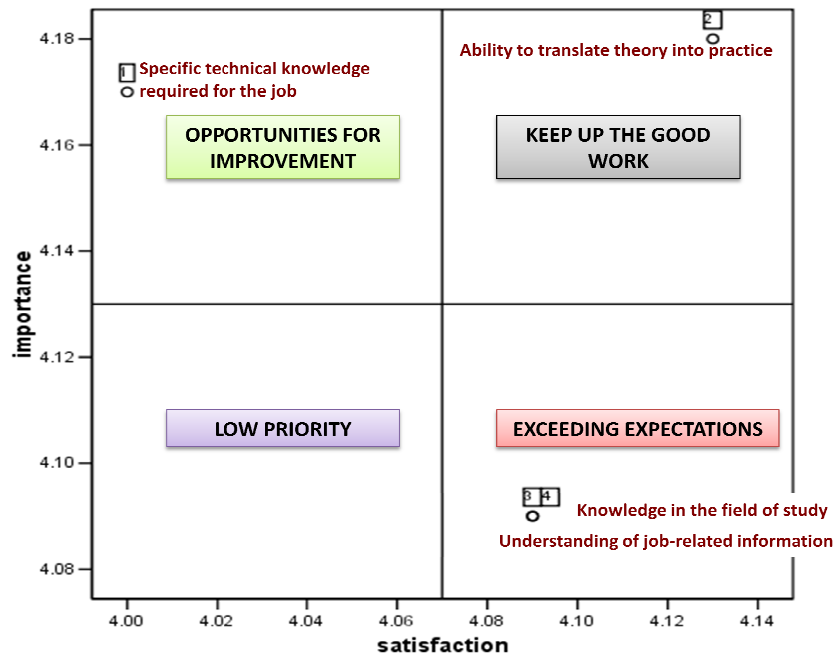


Figure 13. Importance-Satisfaction Analysis by items for Knowledge and Understanding dimension (FST graduates)

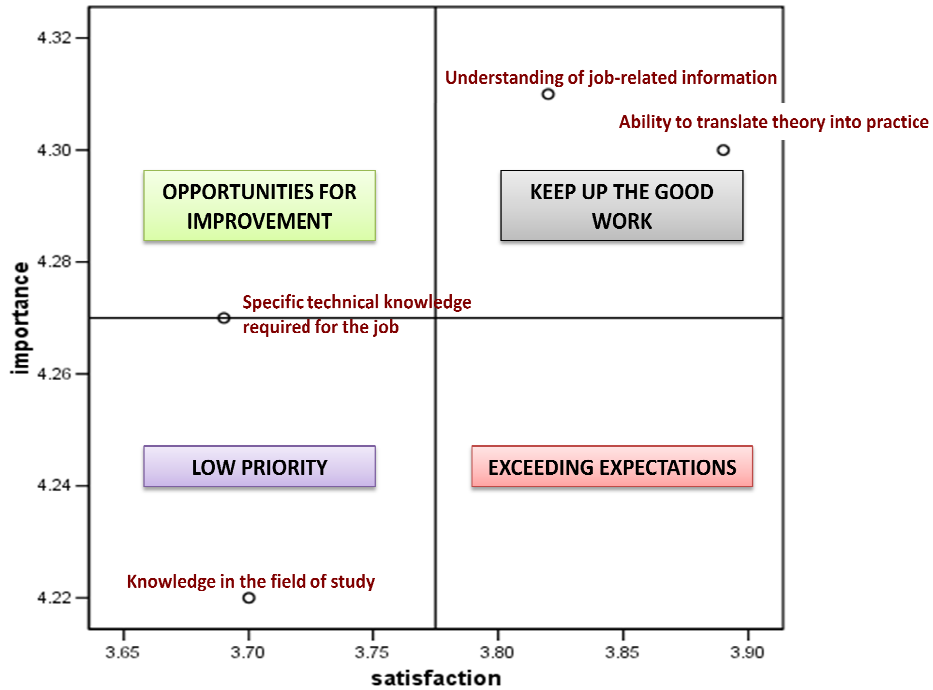


Figure 14. Importance-Satisfaction Analysis by items for Knowledge and Understanding dimension (SONAHS graduates)

As for the General Attributes dimension, whole group quadrant analysis revealed that all items either were considered Strengths (High Importance, High Satisfaction) or were of Low Priority category (Low Importance, Low Satisfaction). None fell under the Opportunities for Improvement (High Importance, Low Satisfaction) category, or Exceeding Expectations (Low Importance, High Satisfaction). (Refer to Figure 15).

Of the 18 competencies examined, 12 were deemed to be the strengths of OUM graduates. They are as follows:

- (1) *Self-discipline;*
- (2) *Teamwork;*
- (3) *Positive attitude towards work;*
- (4) *Willingness to learn;*
- (5) *Integrity;*
- (6) *Professional ethics;*
- (7) *Reliability;*
- (8) *Self-confidence;*
- (9) *Self-motivation and initiative;*
- (10) *Accepts responsibility for consequences of action;*
- (11) *Listening to others; and*
- (12) *Customer service.*

The six competencies which employers considered to be of low priority were:

- (1) *Flexibility & adaptability;*
- (2) *Ability to reflect on own performance;*
- (3) *Ability to find and access information;*
- (4) *Written communication;*
- (5) *Empathy;* and
- (6) *Creativity & innovation.*

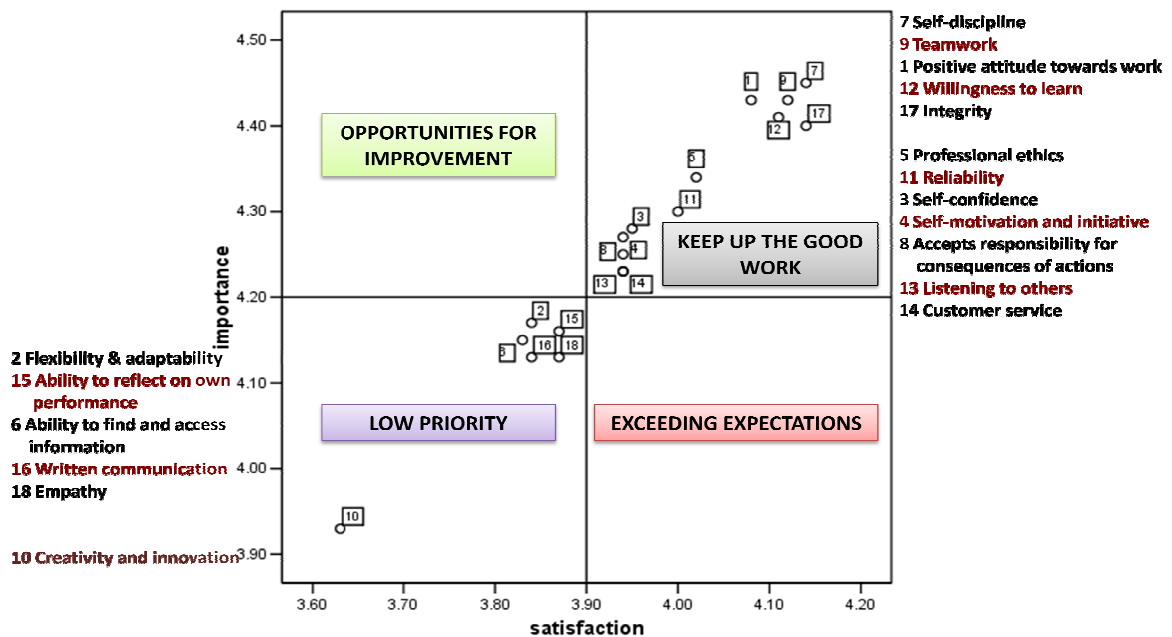


Figure 15. Whole group Importance-Satisfaction Analysis by items for General Attributes dimension

As may be seen from Figure 16, quadrant analysis on competencies in the General Attributes dimension for graduates from FBM indicates that competencies considered as strengths were:

- (1) *Ability to reflect on own performance;*
- (2) *Self-confidence;*
- (3) *Willingness to learn;*
- (4) *Creativity & Innovation;*
- (5) *Written communication;*
- (6) *Integrity;*
- (7) *Teamwork;* and
- (8) *Listening to others.*

According to the employers, competencies that needed improvement were:

- (1) *Self-discipline;*
- (2) *Ability to find and access information;* and
- (3) *Professional ethics.*

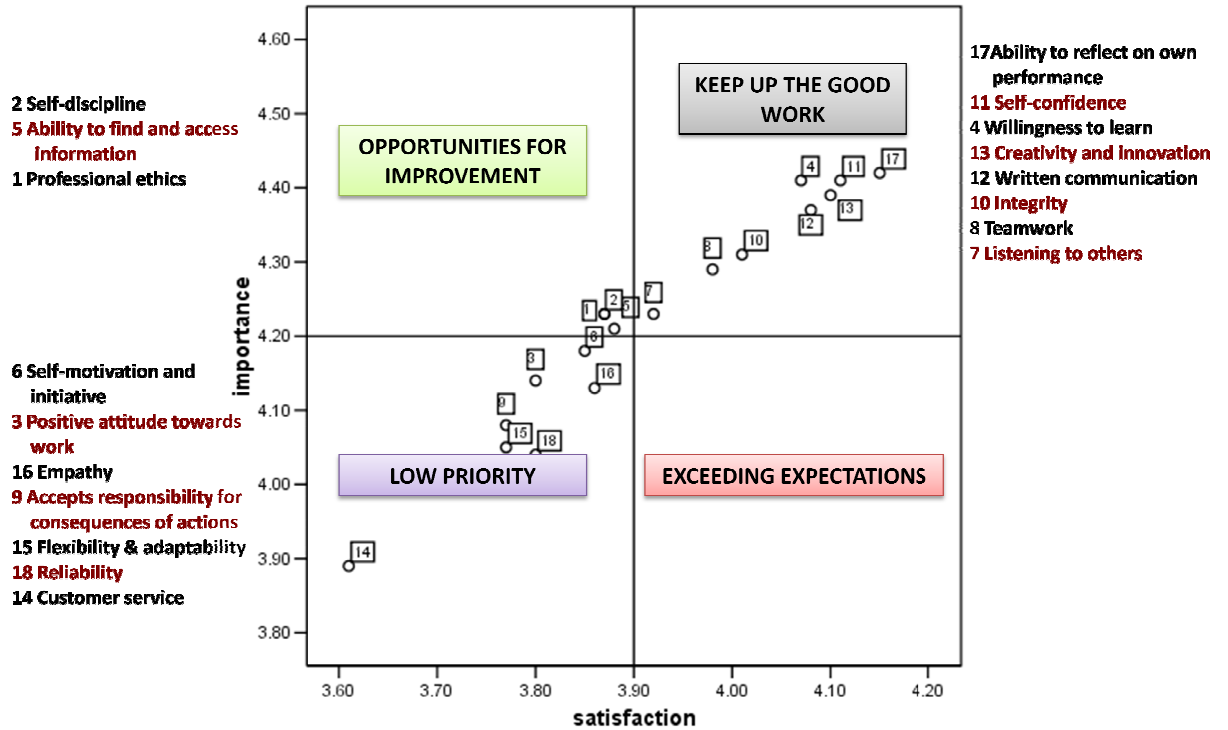


Figure 16. Importance-Satisfaction Analysis by items for General Attributes dimension (FBM graduates)

As for FITMC graduates, the strengths identified by their employers were:

- (1) *Self-discipline;*
- (2) *Integrity;*
- (3) *Teamwork;*
- (4) *Positive attitude towards work;*
- (5) *Self-confidence;*
- (6) *Professional ethics;*
- (7) *Reliability;*
- (8) *Listening to others;* and
- (9) *Ability to find and access information.*

From the employers' perception, competencies of low priority were:

- (1) *Ability to reflect on own performance;*
- (2) *Flexibility & Adaptability;*
- (3) *Empathy;*
- (4) *Written communication;* and
- (5) *Creativity & Innovation.*

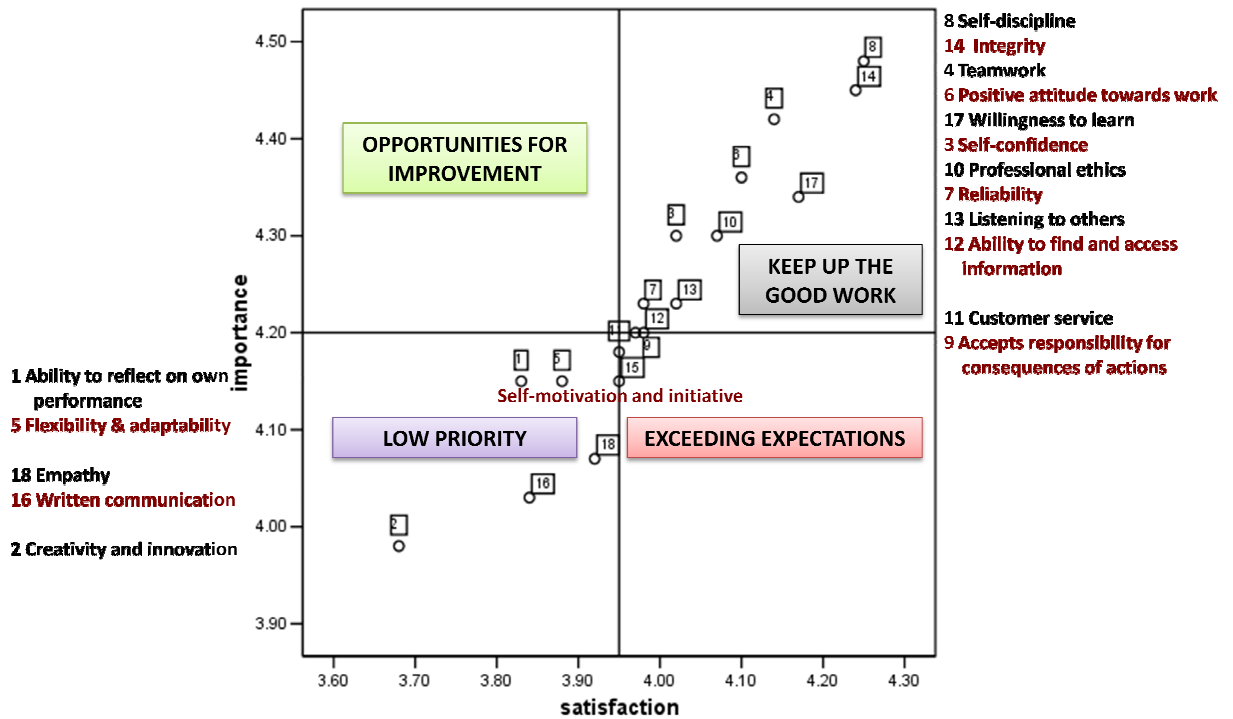


Figure 17. Importance-Satisfaction Analysis by items for General Attributes dimension (FITMC graduates)

Strengths of FST graduates include:

- (1) *Self-discipline,*
- (2) *Positive attitude towards work;*
- (3) *Teamwork;*
- (4) *Willingness to learn;* and
- (5) *Self-confidence.*

While none of OUM's FBM and FITMC graduates' competencies exceeded employers' expectations, FST graduates performed better than what was expected of them in the following:

- (1) *Accepts responsibility for consequences of actions;*
- (2) *Flexibility & Adaptability;*
- (3) *Empathy;* and
- (4) *Reliability* (Refer to Figure 18).

The competency that emerged as a weakness was *Professional ethics*. Those found to be of low priority were:

- (1) *Self-motivation;*
- (2) *Listening to others;*
- (3) *Ability to find and access information;*
- (4) *Integrity;*
- (5) *Written communication;*
- (6) *Ability to reflect on own performance;*
- (7) *Creativity & Innovation,* and
- (8) *Customer service.*

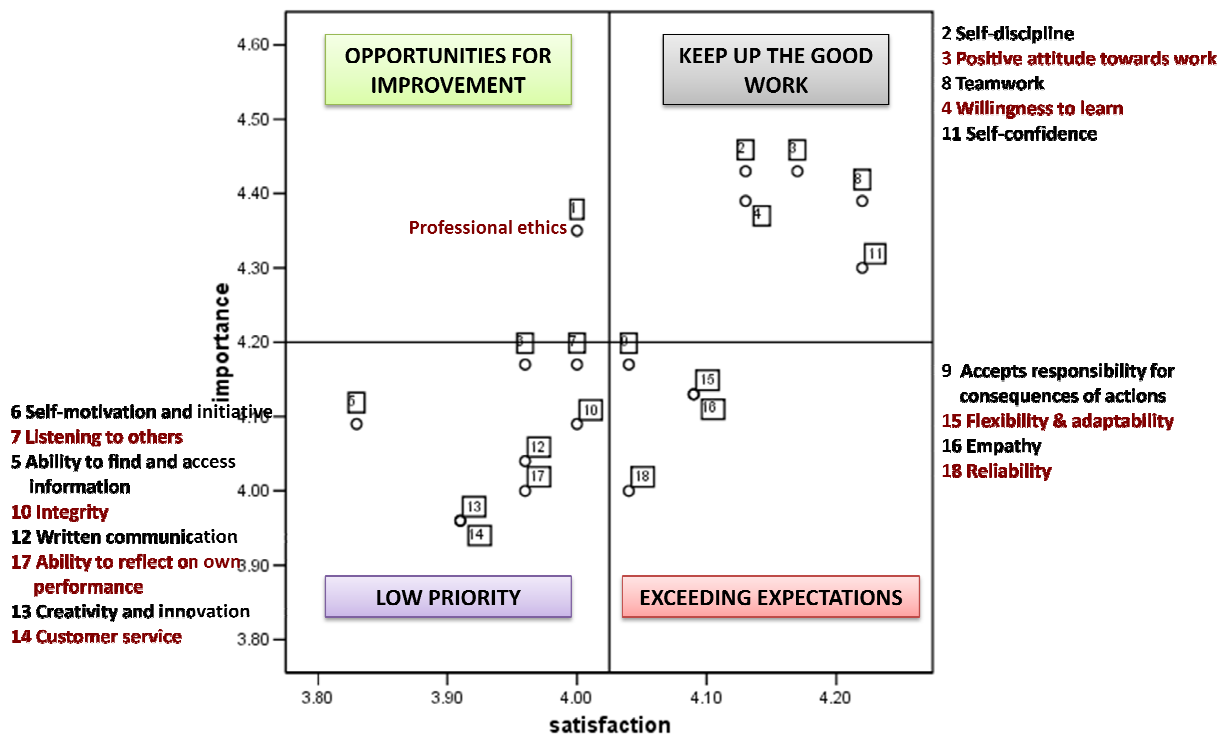


Figure 18. Importance-Satisfaction Analysis by items for General Attributes dimension (FST graduates)

Meanwhile, quadrant analysis on General Attributes of SONAHS graduates revealed that they were strong in the majority of the competencies examined, namely:

- (1) *Willingness to learn;*
- (2) *Teamwork;*
- (3) *Positive attitude towards work;*
- (4) *Self-discipline;*
- (5) *Self-motivation and initiative;*
- (6) *Professional ethics;*
- (7) *Integrity;*
- (8) *Reliability;*
- (9) *Written communication;*
- (10) *Self-confidence;*
- (11) *Accepts responsibility for consequences of actions;*
- (12) *Listening to others;* and
- (13) *Ability to reflect on own performance.*

However, the graduates' *Ability to find and access information* as well as *Empathy*, were below the employers' expectations. Two competencies were considered of low priority, that is, *Flexibility & Adaptability* and *Creativity & Innovation* (See Figure 19).

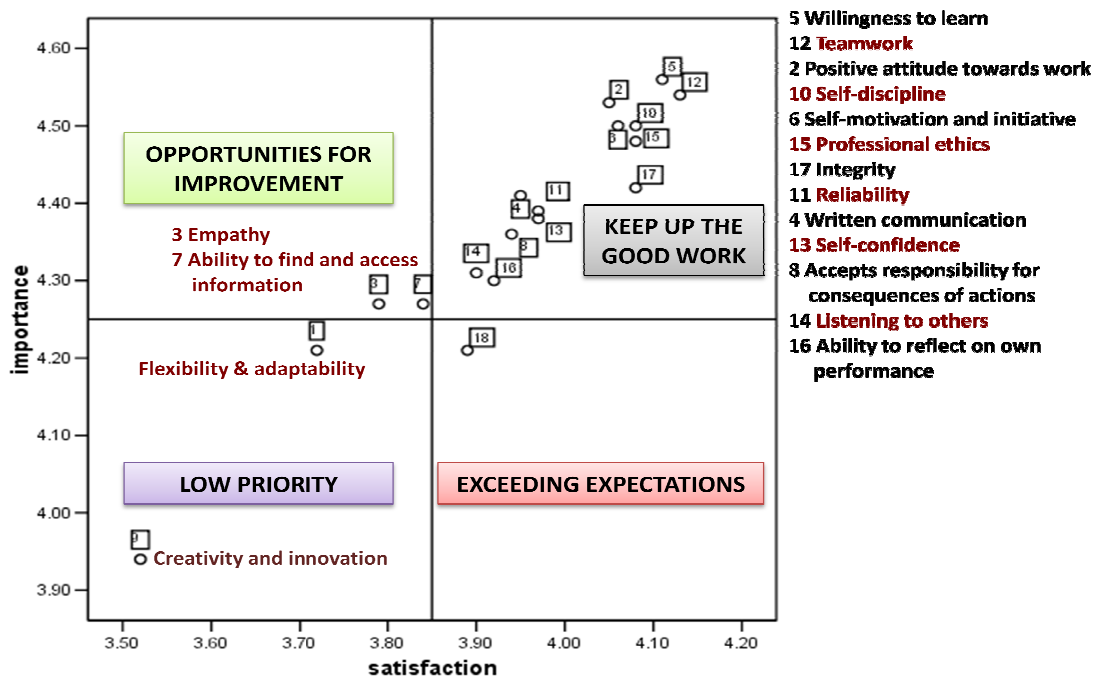


Figure 19. Importance-Satisfaction Analysis by items for General Attributes dimension (SONAHS graduates)

Examining across all four faculties, two competencies which employers of OUM graduates considered to be the graduates' strength were *Willingness to learn* and *Teamwork*. Meanwhile *Professional ethics* were found to be lacking in FBM and FST graduates and *Creativity & Innovation* was considered of low priority for FITMC, FST and SONAHS graduates.

In Figure 20, whole group quadrant analysis for the Generic Skills dimension showed that on the whole, OUM graduates met expectations for four of the six skills examined:

- (1) *Ability to set goals and allocate time to achieve them;*
- (2) *Decision making;*
- (3) *Leadership;* and
- (4) *Mentoring or coaching colleagues.*

The employers considered *Management of resources* and *Entrepreneurial skill* low priority.



Figure 20. Whole group Importance-Satisfaction Analysis by items for Generic Skills dimension

Quadrant analyses by faculty for Generic Skills as shown in Figures 21, 22, 23 and 24 revealed the following:

- (1) FBM and FST graduates' strengths were in their *Decision making, Ability to set goals and allocate time to achieve them and Mentoring or coaching colleagues*. Above that, another strength of FST graduates was their *Leadership skill*. Of low priority according employers of FBM and FST graduates were *Management of resources* and *Entrepreneurial skill*.
- (2) FITMC graduates' strengths were *Ability to set goals and allocate time to achieve them, Decision making, and Leadership skills* while the skills deemed to be of low priority were *Management of resources, Mentoring or coaching colleagues and Entrepreneurial skill*.
- (3) SONAHS graduates were found to be strong in *Leadership skill, Mentoring or coaching colleagues, Decision making and Ability to set goals and allocate time to achieve them*. Out of the four faculties, SONAHS graduates were the only ones who did well in exceeding employer expectations in the *Management of resources*. Similar to the other faculty graduates, *Entrepreneurial skill* was accorded low priority.



Figure 21. Importance-Satisfaction Analysis by items for Generic Skills dimension (FBM graduates)

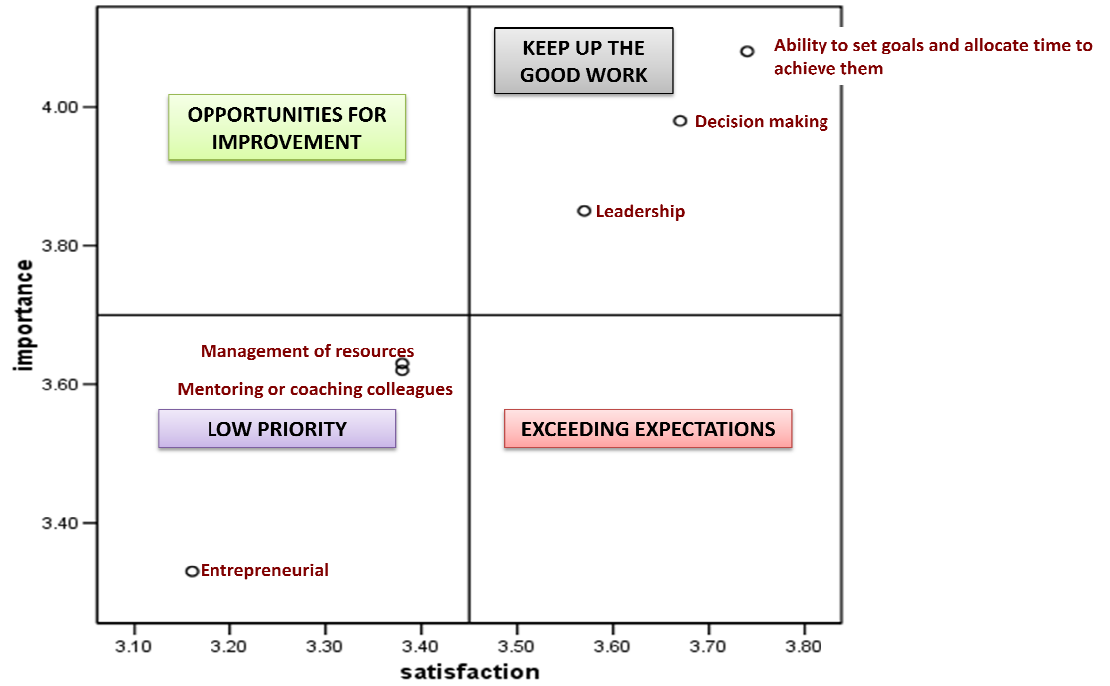


Figure 22. Importance-Satisfaction Analysis by items for Generic Skills dimension (FITMC graduates)

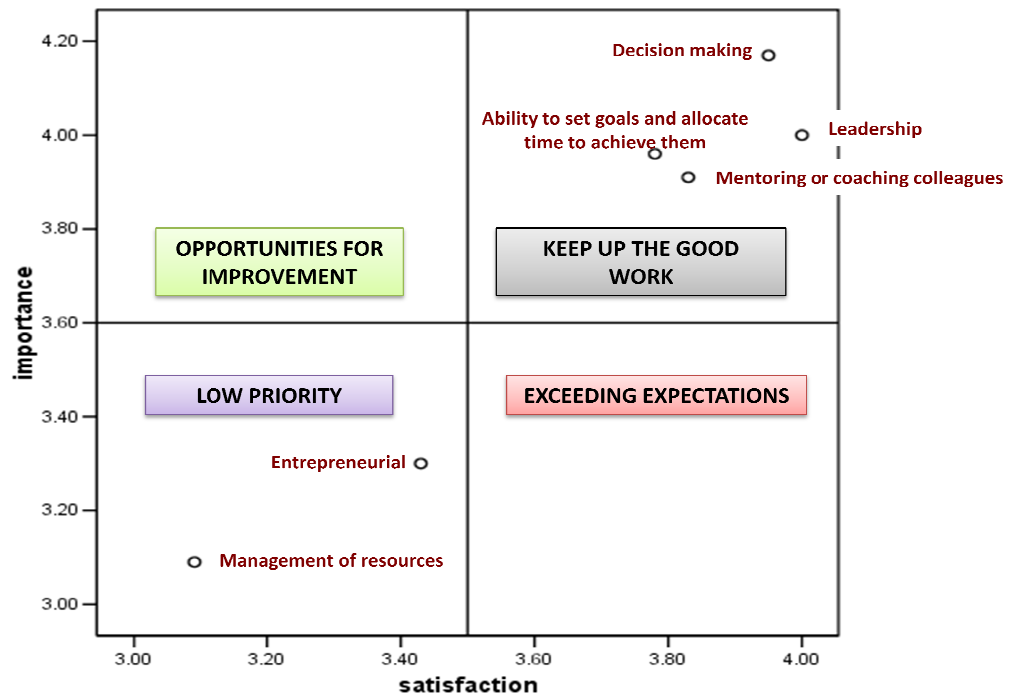


Figure 23. Importance-Satisfaction Analysis by items for Generic Skills dimension (FST graduates)

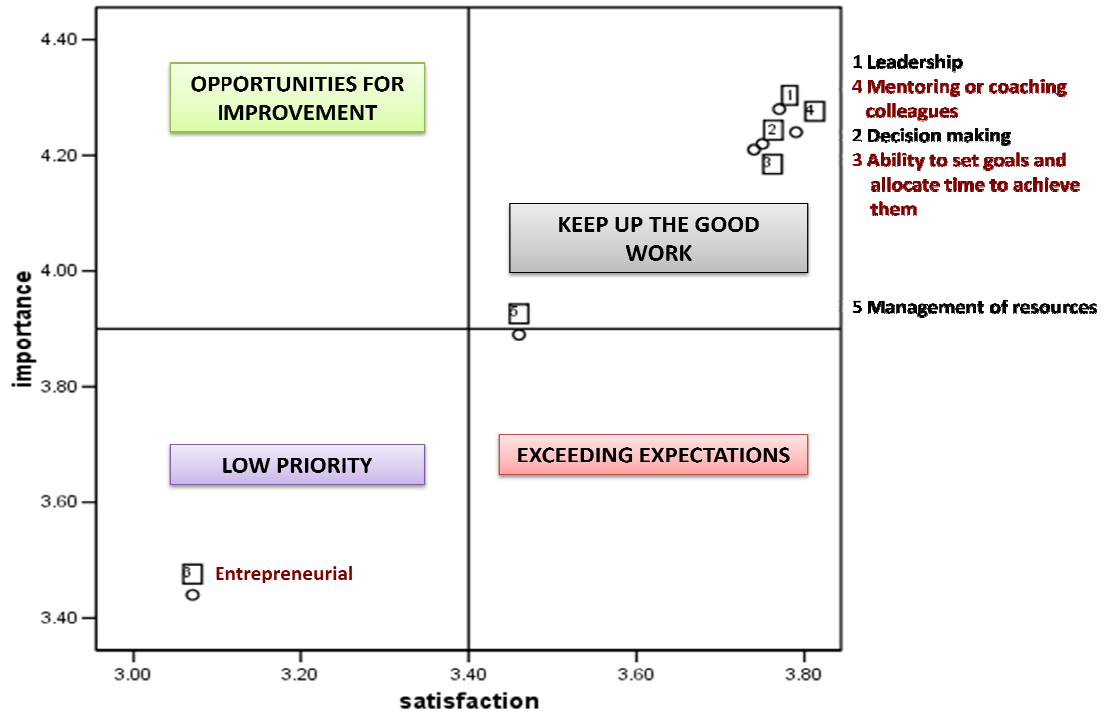


Figure 24. Importance-Satisfaction Analysis by items for Generic Skills dimension (SONAHS graduates)

Overall Feedback

Questions were posed to the employers of OUM graduates at the end of the questionnaire. They were related to:

- (1) Their overall satisfaction with OUM graduates' competencies at the workplace;
- (2) Their opinion of OUM graduates' performance as compared to new graduates from other universities; and
- (3) Whether the employees who graduated from OUM were promoted after they obtained their new academic qualifications.

Overall Satisfaction with OUM graduates

As may be seen from Figure 25, 26.4 percent of the employers who responded to this survey were very satisfied with OUM's graduates while 62.8 percent were satisfied. Nine percent were somewhat satisfied and only 1.8 percent was either not satisfied or not at all satisfied. Referring to the analyses for the four faculties in Figure 25, the findings are:

- (1) FBM: 26.3 percent of the employers were very satisfied, 61.7 percent were satisfied, and 9.9 percent somewhat satisfied. Only 2.1 percent were not satisfied.
- (2) FITMC: 32.8 percent of the employers were very satisfied, 59.0 percent satisfied, 6.6 percent somewhat satisfied and 1.6 percent not satisfied.
- (3) FST: The largest percentage for very satisfied was obtained at 39.1 percent. 52.3 percent were satisfied and 4.3 percent were somewhat satisfied. Another 4.3 percent was not at all satisfied.
- (4) SONAHS: A total of 15.9 percent of the employers were very satisfied and 73 percent were satisfied. Only 11.1 said they were somewhat satisfied. None were dissatisfied.

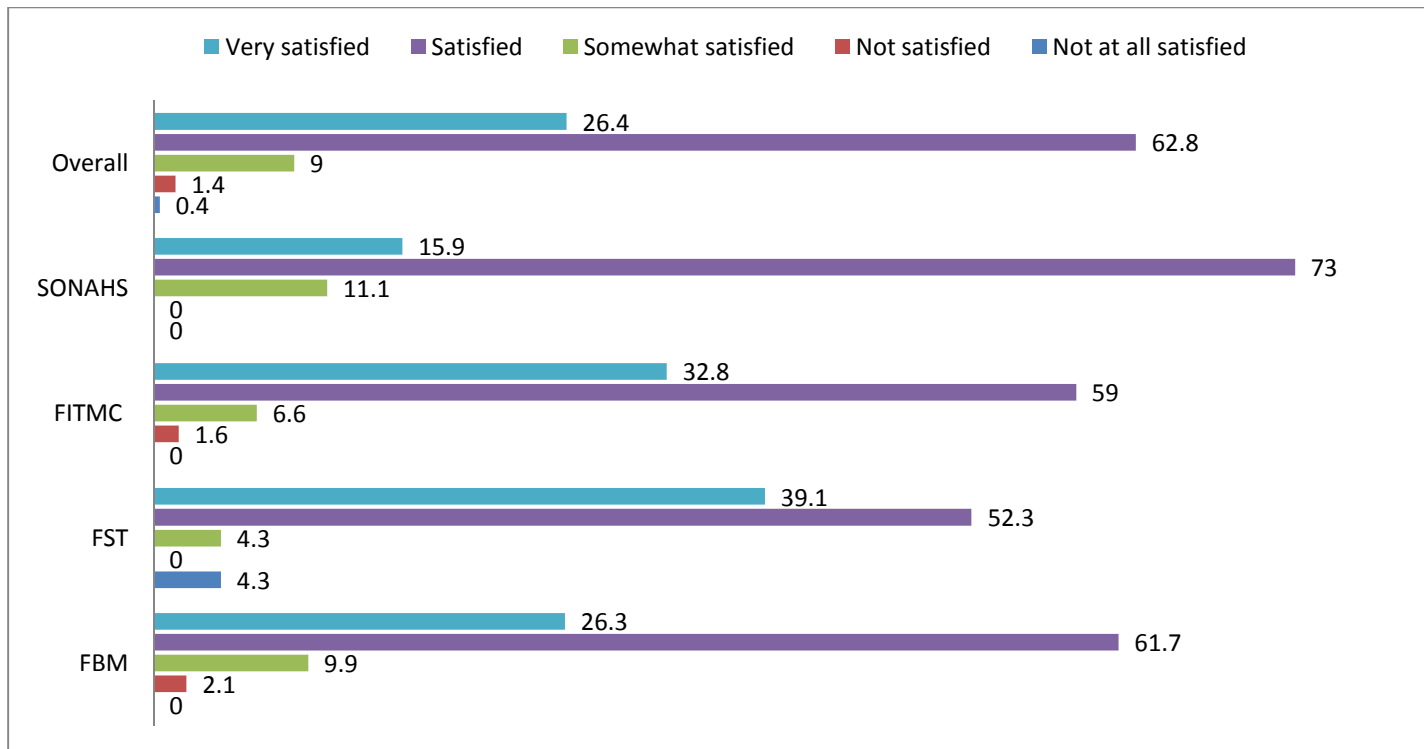


Figure 25. Overall satisfaction of employers with regard to OUM graduates' competencies

Comparison with OUM graduates' performance with new graduates from other universities

Whole group analysis on this item revealed that 8.2 percent of the employers were of the opinion that OUM graduates were much better than new graduates from other universities while 32.8 percent thought OUM graduates were better (Refer to Figure 26). This gives a total of 41.0 percent agreement that OUM graduates were better than those from other new universities. Meanwhile, 57.4 percent found OUM graduates to be almost the same as the others, thus giving an overall satisfaction rate of 98.4 percent. Only 1.6 percent found them to be worse and none thought that OUM graduates were much worse than new graduates from other universities.

Findings for the various faculties are as follows:

- (1) A total of 41.5 percent of FBM graduates were thought to perform better than their counterparts (8.6% much better, 32.9% better). 57.9 percent were considered almost the same as new graduates from other universities and 0.7 percent was found to be worse.
- (2) None of the FST and FITMC graduates were found to be worse than graduates from other universities. FITMC obtained the highest percentage for 'Much better' at 11.5 percent while FST obtained at the highest total for "Much better" and 'Better' at 52.1 percent.

- (3) SONAHS graduates also performed well in that 8.8 percent of the employers found them to be much better than their counterparts and 35.1 percent were better. 55.4 percent were found to be on par with new graduates from other universities and only 0.7 percent was thought to be worse.

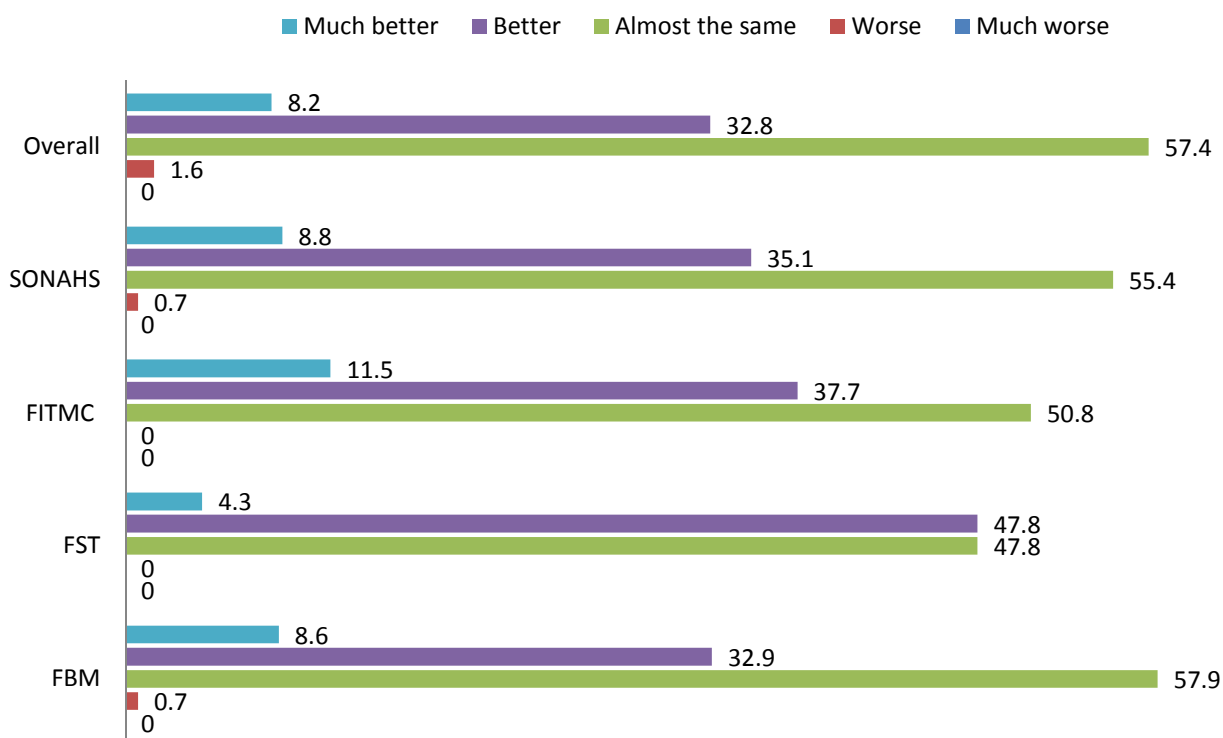


Figure 26. Comparison of general performance of OUM graduate to new graduates from other universities

Promotion of OUM graduates upon obtaining new qualifications

Based on the information given by the 290 employers of OUM graduates who were respondents of this study, 112 or 38.6 percent of OUM graduates were promoted (Refer to Table 15).

Analysis according to programmes revealed that that the largest percentage of graduates who were promoted came from the BIT with Network Computing programme (50.0%) followed by the BIT programme (44.2%), the BSS programme whose graduates were most likely teachers with the Education Ministry (42.1%), the BIM programme (37.3%) and then the BNS programme (32.3%).

Meanwhile, statistics on graduates who were promoted according to faculty indicates that the percentages were in the 30 percent range; 31.9 percent for FBM, 32.3 percent for SONAHS, 34.4 percent for FITMC, and 39.1 percent for FST.

Table 15.
Statistics on Graduates Who Were Promoted

Faculty	Programme	Total number of respondents	Number of graduates promoted	Percentage (%) for programme	Percentage (%) for Faculty
FBM	BAC	13	3	23.1	31.9
	BBA	49	14	28.6	
	BHRM	28	9	32.1	
	BIM	51	19	37.3	
FST	BSS	19	8	42.1	39.1
	BTM	4	1	25.0	
FITMC	BIT - Network Computing	4	2	50.0	34.4
	BITM	14	2	14.3	
	BIT	37	16	44.2	
	BMC	6	1	16.7	
SONAHS	BNS	65	21	32.3	32.3
ALL	TOTAL	290	112	38.6	

CONCLUSIONS AND RECOMMENDATIONS

The level of importance attributed by employers to the various employability competencies

On the whole it was found that employers considered the various competencies important in the workplace. This was found to be true for all three dimensions vis. General Attributes, Knowledge and Understanding and Generic Skills. In this regard, the highest importance was given to General Attributes and the lowest was given to Generic Skills.

The dimension with the highest level of importance was General Attributes. Under this dimension the three competencies that were perceived to be most important were *Self-Discipline*, *Team Work* and *Positive Attitude towards Work*. Noteworthy too is the fact that employers considered *Creativity and Innovation* as the least important attribute at the workplace. While it may be postulated that *Self-Discipline*, *Team Work* and *Positive Attitude towards Work* are important expectations for all employees, one would expect *Creativity and Innovation* to be important for a growing economy poised to lead Malaysia to the status of a high income developed nation status. Perhaps in the case of these graduates, the nature of their jobs does not require high levels of Creativity and Innovation.

Under Generic Skills, it was found that the skills that were perceived to be least important for employers were *Entrepreneurship*, *Management of resources* and *Mentoring or coaching colleagues*. A possible explanation for this outcome is that being individuals with a first tertiary qualification, OUM graduates are probably not required to carry these responsibilities. Often, such Generic Skills are required of senior management and OUM graduates will rise to this level in time to come.

The extent to which the employers are satisfied with OUM graduates' competencies

The outcomes for the satisfaction category were similar to those under the importance category in terms of the rank order obtained. The dimension that was given the highest level of satisfaction was General Attributes, followed by Knowledge and Understanding and Generic Skills.

Under the General Attributes dimension the three areas that employers were most satisfied with were *Integrity*, *Self-Discipline* and *Teamwork*. As with the level of importance, employers considered *Creativity and Innovation* as the attribute they were least satisfied with. This finding requires further investigation: while *Creativity and Innovation* was an attribute they considered to be least important, it was also an attribute employers were least satisfied with.

Under Generic Skills, it was found that the skills that employers were least satisfied with were the same as those they considered least important. These were: *Entrepreneurship*, *Management of resources* and *Mentoring or coaching colleagues*. Again, this outcome requires further investigation.

The extent to which the level of employer satisfaction differs from the level of importance attributed to the competencies

The extent to which level of importance and level of satisfaction differ is an important component of this study. In sum, it was found that there were significant differences between level of importance and level of satisfaction in all but one competency. The competency where the level of importance and level of satisfaction were not significantly different was language proficiency in the national language, Bahasa Melayu.

The fact that all competencies except Bahasa Melayu proficiency were found to be significantly different in terms of level of importance and level of satisfaction is important: the findings suggest that a performance gap between expectations and competencies may exist. While such gaps seem to be common in similar studies (Agus et al., 2011; Griesel & Parker, 2009), it is incumbent upon a tertiary institution such as OUM to endeavour to reduce this gap in order that we may achieve greater levels of competence among our graduates.

Worthy to note is the fact that the majority of the gaps between employer expectation and satisfaction were less than 8.0 percent. This value is half of the maximum values calculated based on the empirical data obtained by Agus et al. (2011) and certainly much less than the gaps obtained by Griesel and Parker (2009). This strongly suggests that OUM's open and distance learning programmes have been successful in producing graduates who meet the expectations of their employers with regard to employability competencies.

Recommendations for Programme Improvement According to Faculties

All in all, it is of great magnitude to find from the survey results that OUM graduates are well regarded by their employers with respect to the knowledge, qualities and skills they bring to their workplace. Likewise, it is also important to note the areas where there are opportunities for improvement. This section seeks to discuss competencies which the employers felt important but where the graduates' performance fell below employer expectations. Recommendations for improvement by faculty are discussed.

Faculty of Business and Management

While the findings of this study suggest that FBM graduates were strong in *Specific technical knowledge required for the job* and that they exceeded employers' expectations with respect to *Knowledge in the field of study*, employers were relatively not very satisfied with FBM graduates' *Ability to translate theory into practice*. Thus, the faculty should take steps to develop their students particularly in this aspect.

Firstly, it is recommended that the faculty incorporate a case based approach for pertinent subjects such as Strategic Management, Principles of Management, Organisational Behaviour, Marketing Management and Business Law. Using the case based approach, learners would be able to utilise the knowledge that they have to solve real-life problems as presented in the cases. This would help them to not only understand, but also to appreciate and apply the theories learnt to the real world. This would help them when they face these problems in their work place.

Another recommendation would be to add simple caselets in the modules, as have been initiated in a few of the FBM modules. Tutors should be encouraged to discuss these real-life examples in the tutorials and forums. This would enable learners to give their input and ideas on how to use relevant theories in actual business scenarios.

In addition, 'work-based learning' initiatives such as internships, practicum placements and work placements could be established in courses where there is no precedence or enhanced in courses where such practices are already in place.

Following this, the assessment i.e. the examinations and assignments should be designed so that learners are evaluated on their ability to translate theory into practice. Although this is currently done for some subjects, the faculty should look into incorporating this in most of their subjects.

The findings also show that FBM learners needed to improve in these areas:

- (1) *Self-discipline;*
- (2) *Ability to find and access information;* and
- (3) *Professional ethics.*

To inculcate self-discipline, the faculty should provide more counselling and motivation talks to the learners and guide them on how to be more independent and disciplined. These sessions could be conducted either be face-to-face in the learning centres or via

myVLE where recorded sessions could be uploaded. The same could be done to improve their sense of ethics. The Professional Ethics module and course should also be improved so that learners get the full benefit from their learning.

Where the skill of finding and accessing information is concerned, the faculty could look into ways of enhancing the skill in the curricula. Currently, all faculty assignments require learners to access information so it is hoped that in time, with ample opportunities to develop the skill throughout the programme, current learners will benefit from this exercise.

Faculty of Information Technology and Multimedia Communications

This study revealed that FITMC graduates' strength was having a good *Understanding of job-related information*, while *Knowledge in the field of study* was identified as a weakness. To help overcome this weakness, the faculty should make sure that modules are constantly updated so that they contain relevant knowledge that is current as well as contain discussions on current issues and trends in the field of study. This is because Information Technology and Multimedia Communications are one of the fastest growing areas where developments occur at a rapid pace, when compared to other fields of study. It would also be of good measure to check that tutors employed to teach such subjects are also up-to-date with current technology and can guide learners effectively in their respective areas.

Overall it is noted that despite 'Knowledge in the field of study' being identified as a weakness, 91.8 percent of the employers who responded to this study were satisfied with FITMC graduates and 35.9 percent got promoted after they were conferred the Bachelor's degree. This suggests that the FITMC graduates have on the whole met the employers' high expectations.

Faculty of Science and Technology

Although the number of graduates from the Faculty of Science and Technology was small, that is, only 23, the results of the study permits the research team to make some general statements about the employers level of satisfaction and perceived importance on the items in the instrument.

According to the respondents of this study, FST graduates were up to the employers' expectations with regard to several General Attributes such as having *Self-discipline*, a *Positive attitude toward work*, *Teamwork*, *Willingness to learn*, and *Self-confidence*. In addition, a strength that was identified in the Knowledge and Understanding Dimension was their *Ability to translate theory into practice*.

However, some attributes that can be improved further as observed in the gaps between the Importance and Satisfaction scores. These are areas where employers felt that the graduates should show a certain level of competency but yet OUM graduates

did not perform up to the mark. In particular, were *Specific technical knowledge required for the job* in the Knowledge and Understanding and *Professional ethics* in the General Attributes dimensions respectively. Since the FST graduates involved in this study specifically were those from the Bachelor of Sports Science and Bachelor of Technology Management programmes, the current curriculum should be revised or enhanced by further strengthening content, delivery and assessment related to specific technical knowledge. Students should be given ample opportunities to engage actively in applying specific technical knowledge to solve problems in a variety of work contexts, particularly those involving technology which sees a rapid pace of development. Also, Professional ethics particularly relating to Sports Science / Technology Management need to be emphasized throughout the curricula.

School of Nursing and Applied Health Sciences

Collectively, SONAHS graduates met their employers' expectations in terms of *Understanding of job-related information* and *Ability to translate theory into practice* in the Knowledge and Understanding dimension. The distinctive link between theory and practice, obviously disclose their competency in delivering quality services to clients. In other words, graduates understand the part they play in building their organisations, and have competent practical skills to work effectively in their roles.

However, *Specific technical knowledge required for the job* which was identified as needed for improvement. In this regard, the curriculum for the individual discipline-specific domains could be enhanced such that technical know-how is given appropriate emphasis so that the students develop an understanding of employer expectations and the skills to meet those expectations.

Meanwhile, quadrant analysis on General Attributes of SONAHS graduates revealed that they were strong in the majority of the competencies examined including *Willingness to learn, Teamwork, Positive attitude towards work, Self-discipline, Self-motivation and initiative, Professional ethics, Integrity, Reliability, Written communication, Self-confidence, Accepts responsibility for consequences of actions, Listening to others, and Ability to reflect on own performance*. Nevertheless, the employers rated the graduates' *Ability to find and access information* as well as *Empathy* as below their expectations. More opportunities for practice could be incorporated for the former while the latter does not seem to be something that can be taught overtly, thus may need to be constantly emphasized throughout the programme, particularly during clinical practices.

The Generic Skills demonstrated by SONAHS graduates were found to be strong in *Leadership skill, Mentoring or coaching colleagues, Decision making and Ability to set goals and allocate time to achieve them*. Besides, SONAHS graduates were the only ones who did well in exceeding employer expectations in the *Management of resources*. Obviously, *Entrepreneurial skill* is not applicable to healthcare / nursing practice, hence, was accorded low priority.

Overall Feedback

Employers' satisfaction with OUM graduates' competencies at the workplace

On the whole, majority of employers (89.2%) who responded to this survey had indicated that they are satisfied and very satisfied with OUM's graduates. Only 10.8 percent of employers were somewhat satisfied or not satisfied. Referring to the analyses for the four faculties, this is proven so for all faculties, i.e. 88 percent employers from FBM, 91.8 percent from FITMC, 91.4 percent from FST and 88.9 percent from SONAHS have agreed that they are satisfied with OUM's graduates' competencies at the workplace.

As the popular saying goes, 'the proof of the pudding is in the eating', so in this case the proof of ODL success in contributing towards human capital development is in the level of satisfaction of employers with ODL graduates. Findings from this study strongly suggest that open and distance learning programmes by OUM have been successful in producing graduates who meet the expectations of their employers with regard to employability competencies. One may infer then that OUM programmes have been successful in facilitating learners apply what they learnt in their classrooms to make themselves competent.

Results from the survey may be used as evidence-based marketing materials. This strategy is crucial in adding value to existing programmes. It is also useful in promoting OUM as the university 'competes' with other ODL providers in the region.

Employers' opinion of OUM graduates' performance as compared to new graduates from other universities

Overall, 98.4 percent of employers surveyed believe that OUM graduates are either at par or better than the new graduates from other universities. It is heartening to know that 41.0 percent employers agree that OUM graduates performed better at work than new graduates from other universities. The result also reveals that 8.2 percent of the employers were of the opinion that OUM graduates were much better than new graduates from other universities.

Findings for the various faculties showed that only 0.7 percent of FBM and SONAHS graduates were found to perform worse than the graduates from other universities. None of the FST and FITMC graduates were found to be worse than graduates from other universities.

It may well be that OUM graduates function better at the workplace as they have prior task knowledge and skills. OUM graduates who are mainly working adult learners, are more apt to take responsibility, as well as have a clearer sense of purpose of what they really want, which probably leads to better performances in jobs. Isolated from real workplace experiences, new graduates from other universities may face obstacles and

barriers in the form of applying theories and concepts of subject-specific learnt at the lecture halls to the situations at work. In addition, they may take time to adjust to their work environment due to having no prior knowledge, skills and experience.

Promotion of OUM graduates upon obtaining new qualifications

290 employers of OUM graduates who participated in this survey had promoted a total of 112 OUM graduates (38.6%) after the graduates obtained their new academic qualifications.

Adult learners enroll in undergraduate programmes based on a variety of reasons and needs. A previous study done on OUM students by Raghavan, Ahmad, Abu Samah, and Asmuni, (2005) revealed that the highest need was for professional advancement. Obviously, workforces are motivated to pursue their studies with OUM and remain committed to finish their studies when that involvement results in a high possibility of 'professional advancement'. Results from this study ought to further encourage open and distance learners with OUM that it is worthwhile to invest their time, money and efforts in pursuing a basic degree as successfully obtaining the degree does improve prospects of advancing their respective careers.

LIMITATIONS OF THE STUDY

As in all studies, the validity of the findings depends much upon the instrument used to gather the data. It is hereby acknowledged that while every attempt was made to ensure that the competencies examined were those considered most pertinent with respect to employability, the instrument might not have captured all essential competencies, particularly when the study involved different faculties with different foci and learning outcomes.

Further, this study focused on the November 2010 graduates from the open market Bachelor programmes only. As such, the findings may not be generalized to graduates from other batches or graduates of the postgraduate programmes.

SUGGESTIONS FOR FURTHER RESEARCH

The apparent lack of creativity and innovation among OUM graduates as pointed out by the employers surveyed needs to be further investigated. The result of this study has raised the issue of 'creativity and innovation' as being listed the last in order of importance by employers when asked to rank the various employability competencies as well as their satisfaction with OUM graduates' competencies. From the employers' perception, *Creativity and Innovation* was also a competency of low priority for them. Adult learners in an ODL setting need creative ways to complete their education and they want instruction that allows them to make links between their experience at their workplace and the new knowledge. OUM modules and other learning tools such as the i-tutorial, i-lecture, and open educational resources have been developed to increase working adult learners' reach to multi-mode learning material. These learning materials are well designed instructionally, recognize and address mixed student learning behaviour and take note of user friendliness. All in all, *Creativity and Innovation* had become the most important consideration when developing these learning materials. At such, it is surprising why employers were least satisfied with that competency in the General Attributes dimension.

Further research could also be conducted to examine why some of the graduates were found to have performed below the expectations of the employers. Although the numbers are few, findings from such research might shed some light on the reasons for the poor performance of those graduates at work despite them having gone through similar course content, delivery and assessments.

In addition, conducting interviews with employers would give further insight on their perceptions of the quality of OUM programmes as well as that of the graduates. Analysis of qualitative data might draw out elements of work performance after graduation that were missed in the quantitative study where competencies examined were limited to those listed in the questionnaire.

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