Postgraduate Students' Recruitment Strategies in Higher Education Institutions of Malaysia

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ABSTRACT

Almost every higher education institution (HEIs) in the world is facing a tough challenge to recruit new students especially the talented ones due to intense competition in the local and global market. The institution needs to design effective marketing strategies that able to recruit students. The recruitment strategies in public HEIs can be classified into three main categories namely; non-active recruiting strategy, passive recruiting strategy, and active recruiting strategy. This study reveals that non-active recruitment strategies such as reputation of the university, and passive recruitment strategies such as advertisements have significant relationships with the talented postgraduate students' recruitment. However, active recruitment strategies (i.e., travelling abroad to recruit students) were not significantly correlated to talented postgraduate recruitment. Research universities (i.e., USM, UM, UKM, UPM and UTM), seem to have more quality students as compared to other non-research universities except for the UIAM. Thus to be more effective, the recruitment of postgraduate student strategies and practices in the public universities needs to be reviewed continuously since the needs and wants of the students are ever changing.

Keywords: Recruitment Strategy, Marketing Strategy, Higher Education Institutions, Quality Students
JEL Classifications: I23, M31

1. INTRODUCTION

In the global context, the trend in students' recruitment strategies has shown positive development whereby many higher education institutions (HEIs) have adopted some form of business strategies, particularly marketing, for strategic recruitment activities (www.hanoverresearch.com; Padlee et al., 2010). To establish a strong brand name as an innovation hub is indeed not an easy task, since remaining competitive in the eyes of the customer in the global education market alone requires lots of hard work from various parties involved, particularly HEIs themselves and the ministry. HEIs need to maintain or develop a distinct image to create competitive advantage in an increasingly competitive and demanding market (Nga, 2009; Paramewaran and Glowacka, 1995). An unforgettable distinct image requires lots of marketing efforts like promotion, sales agents and advertisement activities to establish a strong market position. Devising strategies to attract students and creating efficient and effective learning environments is part of the plan implemented by the administrators in HEIs in order to link academic success to concepts such as retention and recruitment (Farahmandian et al., 2013).

2. LITERATURE REVIEW

2.1. Global Competition for Talents

Competition among countries in attracting talents has intensified year after year. Hence, the global demand for foreign students has created aggressive recruitment efforts from many developed countries such as USA, Australia, New Zealand, Canada, France, the United Kingdom, Netherland and many more. The USA in particular, has been considered as a magnet for foreign talents, and foreign students have come into the country since the mid-1950's. However, on the global education market, even though USA receives the largest number of foreign students, its share market dropped from 25.3% of all foreign students studying abroad in 2000 to 21.6% in 2004 (Batalova, 2007). Nevertheless, in 2014, about 9,00,000 foreign students enrolled in the universities in USA which represented an increase of more than 40% over the

past decade. With the current competitive rivaling that takes place among education providers in the world today, USA could no longer be in the forefront in attracting talented students in years to come. Countries like China, Singapore, Malaysia, South Korea, Taiwan, UAE and Qatar which used to send their students to the USA, are now eyeing for foreign talented students, especially from the Asian region to study and later to work in the countries. As competition becomes intensified they increasingly behave as business entities by adopting more business strategies, including marketing strategies (Padlee et al., 2010), to create unique and special offers that may entice students from various parts of the world to pursue their education in the host countries. The institutions may have to redefine their market orientation and redesign their service quality to remain competitive (Stimac, 2012).

In the past two decades, we have witnessed unprecedented expansion of tertiary sector worldwide. Many factors have influenced the internationalization of education, and among those are the needs of a knowledge economy and desire to learn from other country's experts. These factors have encouraged students and government to seek better opportunities outside their home country through education service. Today, many countries have revealed highly competitive and attractive initiatives in an attempt to attract foreign students, particularly those who are classified as talented. Among those incentives used by the countries like Australia, Canada, France, UK and New Zealand, amend migration laws especially for skilled work experience and English proficiency for those who wish to work after the completion of their studies. Besides offering programs in English, these countries also subsidize tuition to attract foreign students from various parts of the world. In line with the incentives discussed, non-western countries like Singapore, Qatar and Malaysia also utilize creative recruiting programs to create a market position as important regional players in international education. Singapore and Malaysia for example, offer incentives and subsidiary opportunities for well-known universities to establish their campuses in the countries (Batalova, 2007), whereas, France and Japan have strengthened and expanded their scholarship programs for foreign students (Scott, 2007).

More importantly, it is not easy for a country to stay competitive in the education industry because students' needs and preferences are easily prone to be influenced by many internal and external factors inside and outside their home country. Thus, many governments in the world have been painstakingly focused on how to create attractive incentives to attract foreign students and this move is considered imperative since it affects the economic benefits of higher education. To be the first choice of study destination among international talents requires lots of efforts and proper planning of recruitment strategy and policy. Various issues and incentives have to be considered to turn a country like Malaysia into an education hub, and more so as an innovation hub.

2.2. Malaysia Initiative in Foreign Students' Recruitment

At present, the Malaysia higher education sector signified substantial growth as a result of the government's initiatives through its economic transformation plan and long term goal to groom Malaysia as regional center of excellence in education. One of the agendas in HE sector is to transform education as an engine of growth through shifting the market from focusing on domestic students and consumption to one where education exports through foreign students' participation are major drivers of gross national income and critical part of the economy (ETP, 2011).

Effort by government to liberalize and democratize the higher education sector through the higher education act has resulted in the escalation of the number of international students in Malaysia since 1996. The number of international students enrolment has grown rapidly from 32 in 1970 to 12,605 in 1999 (Hanapi et al., 2003), 39,763 in 2004 (Habhajan, 2004), and currently approximately 80,000 international students from over 100 countries (Becker and Kolster, 2012) mainly from China, Indonesia, UAE, Middle East and others. International student mobility is expected to increase to 6 million by 2020, of which 70% comes from Asia Pacific region. Malaysia at present is the 11th largest education exporter in 2009, hence, the increase in numbers of participation of foreign students is expected to generate income to the country (ETP, 2011).

The rise in foreign students' number has driven the government to champion Malaysia as international education brand. Government of Malaysia has pursued seriously the establishment of regional education hub through two new initiatives; the development of Educity in Iskandar Malaysia and Kuala Lumpur education city. These two strategic initiatives aim to provide high quality education for human capital development through bringing in renowned foreign universities, support industry academic collaboration and build reputable research infrastructure. The effort by government does not only attract talented foreign students but also increase the access to quality education among locals with the opportunity to study at prestigious institutions around the globe at a cost significantly lower than at the home campus (Knight and Morshidi, 2011).

Although Malaysia is a rapidly emerging competitor in the recruitment of international students with its initiative to become a regional education hub, other competing regional education hub from countries such as Singapore, Qatar, Bahrain, Hong Kong and UAE should not be undermined. Malaysia regional education hub should not only focus quantity aspect such as students' number but most importantly, to move to higher value hub by including the production and distribution of knowledge and innovation (Morshidi, 2010). However, with the existing recruitment strategies employed, the question on whether these strategies enabled local HEIs to attract quality and talented students is yet to be answered. As far as past study conducted, database on number of students, who generate knowledge and innovation through research and development (R&D) is hardly existed. Thus, it is hoped that the current study aim to investigate the level of utilization and the effectiveness of students' recruitment strategies employed to enable us to identify ways to attract talented students for knowledge and innovation production and comprehending the needs of these students.

3. RESEARCH METHODOLOGY

The study employed quantitative method using questionnaire as its data collection method. The respondents were identified, and

sampling frame was acquired from the directory managed by the ministry of education. A number of 16 public universities were selected and from these public universities, the population of academicians was around 28,786. A sample size was determined based on the total population. Concurrently, the instruments to measure the effectiveness and utilization level of recruitment strategies utilized by public university were developed and pre tested. This study is conducted in a natural setting such as public universities, with minimal interference from the researchers. Moreover, it is a cross-sectional study and the data were collected via a survey. The survey aims to find out preliminary information on the current recruitment strategy adopted by the public higher education, types of support provided to the students, and impact of recruitment strategies on the student's enrolment.

3.1. Population and Sample

Malaysia consists of total 20 public universities. From these 20 public universities, four of the universities do not have international postgraduate students. Hence, the total population of universities with international postgraduate students is 16 universities. From these 16 universities, three categories of universities are formed; the research university cluster, non-research university cluster and the technical university cluster. As indicated in the Table 1, the universities are classified into these categories.

All universities that have international postgraduate students were selected, thus, the study became a census study. Among the 16 universities under review in this study, 5 of them were research university, 6 of them were non-research university and the remaining 5 were under the category of Malaysia technical university network. The population for lecturers was 28,786 while postgraduate student population in the tertiary education was 79,414 (as of 2011). The sample size for academicians and students were based on the sample size table developed by Israel (2009). Based on the table, the sample size was 100 for academicians and 100 for students. The sample size was determined based on ±10% precision level at a 95% confidence level (Israel, 2009). For this study, the unit of analysis was on the individual level. The respondents were from postgraduate dean, international office, foreign professors and students as well as local professors and students. The selection of these universities into this study were due to the enrollment of foreign students at the universities. About 1600 questionnaires were sent to the lecturers who were recommended by the graduate schools and faculties of the universities, using mail and online survey. However, from 1600 survey forms, the returning forms were only 121. On the other hand, for students, out of 1600 survey forms distributed, only 113 forms were usable for further analysis.

3.2. Instruments Development

The purpose of the survey was to acquire information on profiling such as demographics, support provided by university, the extent of effectiveness and level of utilization of the recruitment strategies employed. The instrument for the questionnaire was adapted from Wang (2009), Phanchatraurai (2005), Magaya (2004), Yang (2003) and other related literature. The questionnaires were divided into five sections. The first section was questions pertaining to the types of recruitment strategies employed. There are 39 questions for the first section. This used a 5-point Likert-scale (1 = Not effective, 2 = Slightly effective, 3 = Neutral, 4 = Moderately effective, 5 = Very effective and NA = Not applicable) to examine the effectiveness of the recruitment strategy in their process of getting students.

The second section of the questionnaires referred to the types of operational support provided by the institutions. Compared to first section, the second section was made up of 17 questions using a 5-point Likert-scale (1 = Not important, 2 = Moderately important, 3 = Uncertain, 4 = Important, 5 = Very important). The third section with 6 questions addressed the outcome due to the recruitment strategy. This section also used a 5-point Likert-scale (1 = Not important, 2 = Moderately important, 3 = Uncertain, 4 = Important 5 = Very important). Section 4 had 15 questions using Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly disagree. The final section focused on the profiling of the respondents such as gender, recruitment activities involved and others in which the measurement used was nominal and ordinal scale.

4. RESULTS OF THE STUDY

4.1. Demographic of the Respondents

In order to obtain a more reliable and holistic information pertaining to the student recruitment strategy implemented by the university, this study collects data from two different sources - students and professors. Based on the study, about 1600 survey forms were distributed to three categories of universities; the Research University, the non-research university and the technical university. From the total 1600 survey, only 113 usable survey forms were analyzed due to poor response rate.

The postgraduate students were represented by M.Sc. mixed mode, MBA, Master by research and Ph.D. students. Majorities of the respondents were local postgraduate students while most of the international postgraduate students who participated in the survey were originated from Iran, Nigeria, Yemen, China and Sudan. In addition to the country of origin of the postgraduate students, these students came from research university, non-research university,

Table 1: Categories of the public HEIs

Research university cluster	Non-research university cluster/focused university	Technical university cluster
Universiti Malaya	Universiti Islam Antarabangsa Malaysia	Universiti Tun Hussein Onn
Universiti Putra Malaysia	Universiti Utara Malaysia	Universiti Teknikal Malaysia
Universiti Kebangsaan Malaysia	Universiti Malaysia Sabah	Universiti Malaysia Pahang
Universiti Teknologi Malaysia	Universiti Malaysia Sarawak	Universiti Malaysia Trengganu
Universiti Sains Malaysia	Universiti Teknologi Mara	Universiti Malaysia Perlis
	Universiti Sains Islam Malaysia	

HEIs: Higher education institution

and technical university. As indicated in Table 2, majority of the respondent came from USM, the next highest participants came from UPM as well as UUM.

In terms of academic staff, there were about 32.2% of participants identified themselves as Associate Professor, 31.4% as Senior Lecturer and 27.1% as Professor and the balance are other categories such as Deputy Dean and Visiting Professor. The composition of the participants according to the university which they affiliated with was indicated in Table 3.

The distribution was as follows; USM (16.5%), UUM (15.7%), UM (9.9%) and UITM (8.8%) while other university was represented by below than 8% of the total respondents. These respondents represented universities in the research university category, non-research university and technical university categories. Majorities of the respondents were Malaysian (79.3%) while other nationalities made up only <2% of the total respondents. In terms of gender, 68.6% of the respondents were male, whereas 31.4% of the respondents were female.

Based on the study, the recruitment strategies were categorized into non-active recruiting strategy, passive recruiting strategy, and active recruiting strategy. Non-active recruiting strategies are intrinsic characteristics of the institution that can be used to attract talented international and academicians without additional financial resources such as academic reputation. Passive recruiting strategies are strategies that can be conducted without having to travel overseas, for instance, appointing a third party as an agent while active recruiting strategies are aggressive strategies undertaken by the institution such as travelling overseas to recruit talented students and academicians. The respondents of this survey are both local and foreign postgraduate students and academicians.

4.2. Level of Utilization and Effectiveness of the Recruitment Strategies

In terms of the level of utilization of the recruitment strategy, for non-active recruiting strategies, students indicated that the three most utilized strategies were academic accreditation (mean = 3.876), academic reputation (3.832) and educational experiences (3.805) while the three most effective recruiting strategies were educational experience (4.000), academic accreditation (4.062) and renowned professor (4.035). In addition, for passive recruitment strategies, the three most utilized strategies were using university portal (3.823), interactive website (3.769) and scholarship (3.619), and the three most effective strategies were scholarship (4.035), interactive website (4.018) and university portal (3.938). The three most utilized active recruitment strategies were recruiters to participate in education fair (3.540), recruiters to participate in group tours to foreign countries (3.221), and sales agent to recruit local postgraduate students (3.115). Active recruitment strategies that were considered most effective were recruiters to participate in education fair (3.814), recruiters to participate in group tour to foreign countries (3.655), and incentives for a student to get student program (3.434). In terms of operational supports demonstrated, students indicated that the three most utilized operational supports were computer lab (3.983), opportunity to engage in research with academicians (3.920), and

Table 2: Number of respondents in the study

University	Frequency (%)
RICT/UiTM	1 (0.8)
UIA	6 (5.0)
UiTM	10 (8.3)
UKM	8 (6.6)
UM	12 (9.9)
UMK	3 (2.5)
UMS	6 (5.0)
UNIMAP	7 (5.8)
UNIMAS	8 (6.6)
UNISZA	2 (1.7)
UPM	7 (5.8)
UPSI	1 (9.8)
USM	20 (16.5)
UTeM	3 (2.5)
UTHM	2 (1.7)
UTM	6 (5.0)
UUM	19 (15.7)
Total	121 (100.0)

Table 3: Lecturer's position

Position	Frequency (%)
Associate Professor	39 (32.2)
Dean	3 (2.5)
Deputy Dean	11 (9.1)
Professor	27 (22.3)
Senior Lecturer	38 (31.4)
Visiting Professor	3 (2.5)
Total	121 (100.0)

postgraduate workspace (3.850). They also considered the three most effective operational supports were similar, such as computer lab (4.133), opportunity to engage research with academician (4.142) and postgraduate workspace (4.142). As explained earlier, respondents indicated that the three most utilized types of financial supports were scholarship (3.619), graduate assistantship (3.584) and financial grants (3.558), and the three most effective types of financial supports were scholarship (4.124), graduate fellowship (4.124) and graduate assistantship (4.044).

For academician, the three most utilized non-activity recruitment strategies were academic reputation (3.8099), academic accreditation (3.8017), and educational experiences (3.7521) while the three most effective strategies were academic reputation (4.1736), academic accreditation (3.9504) and educational experiences (3.9008). For active recruitment strategies, the three most utilized recruitment strategies were recruiters to participate in educational exhibition (3.6116), recruiters to participate in group tours to foreign countries (3.2231), and recruiters to take individual trips to foreign countries (3.2231) while the three most effective recruitment strategies were recruiters to participate in educational exhibition (3.8264), incentives for a student get student programme (3.4545) and recruiters to take individual trips to foreign countries (3.3554).

Based on the operational support, the three most utilized operational supports were R&D lab (3.876), postgraduate space (3.7686), and international office (3.7355), whereas the three most effective operational supports were postgraduate workspace (4.1818), affiliation with research centre (4.0165), and orientation

programme (4.0826). Figure 1 explained types of operational support provided by the universities.

For financial support, the three most utilized types of financial support were graduate assistantship (3.8017), graduate fellowship grant (3.7025) and financial grants (3.6446), while the three most effective financial supports were financial grants (4.5041), scholarship (4.2066) and graduate assistantship (4.2066). The types of financial support provided by the universities were illustrated in Figure 2.

Interestingly, the responses that came from different types of respondents were similar in identifying the level of utilization and extent of effectiveness of the recruitment strategies adopted by the public HEIs. For operational support, both types of respondents agreed that postgraduate workspace was mostly utilized by the students and considered as most effective in accommodating the students in their postgraduate studies. In terms of financial support,

both types of respondents affirmed that the most utilized supports from students were graduate assistantship, graduate fellowship and financial grants and the most effective support for the students, according to them, was scholarship. By using different categories of respondents, the measurement errors associated with survey method could be reduced.

The descriptive analysis highlighted the extent of utilization and effectiveness of the recruitment strategies adopted by the HEIs from students and academicians perspectives. These recruitment strategies were also analyzed to determine whether they had a significant impact on the postgraduate students' recruitment.

4.3. Is there any Relationship between Types of Recruitment and Impact on Postgraduate Recruitment?

In addition, descriptive analysis was performed to analyze the extent and level of types of recruitment strategies utilized by

Figure 1: Types of operational support
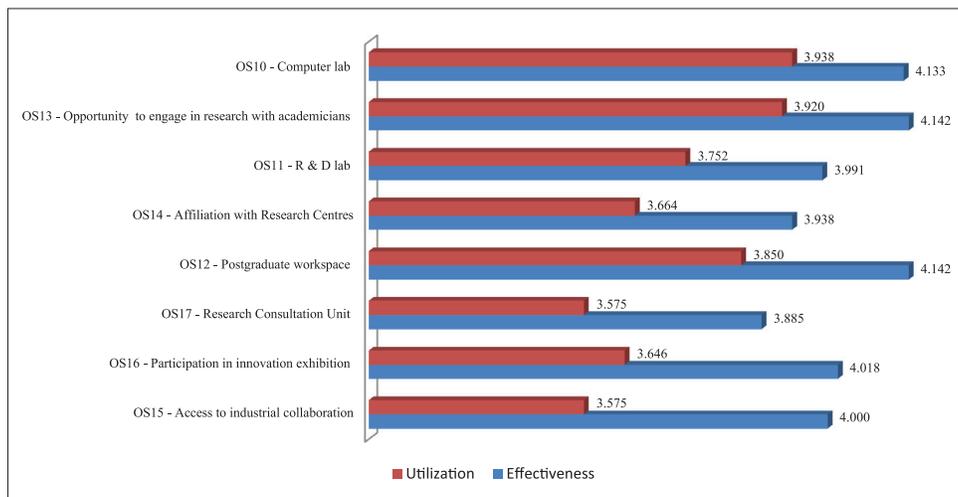
Figure 2: Types of financial support
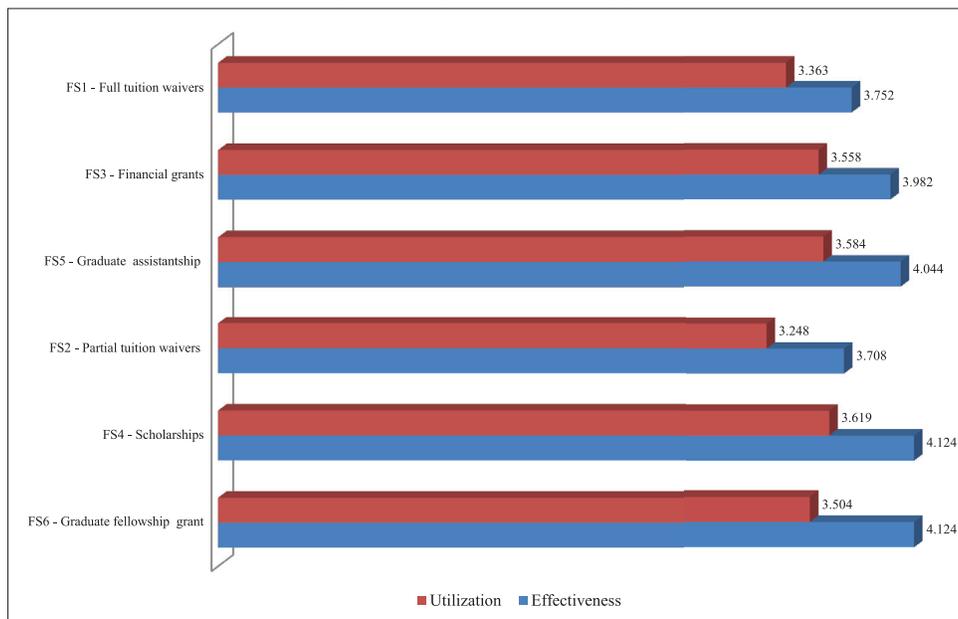
the public HEIs. Apart from descriptive statistics, an inferential statistic was conducted to determine the impact of the recruitment strategies adopted by the HEIs. Based on the correlation analysis, the results were summarized in Table 4.

Based on Table 4, the most frequently used recruitment strategies in public higher institutions were passive recruitment strategies. Its effectiveness seems to be higher than active strategies and this could be the reason why passive strategies are used more than active strategies in public HEIs. Active recruitment strategies were not used so extensively compared to other strategies. In terms of support, HEIs provided the operational support effectively however, in terms of level of utilization, the operational support

was aimed to increase the number of talented students and also the ISI/Scopus index publication. The financial support was effectively used to increase the number of talented students and improve students' ability to write research proposals as well as securing research grants. In addition, the support was utilized to achieve the objective of recruiting talented students, increase publication with ISI/Scopus Index and finally improve the student's ability to write a winning research proposal.

4.4. Is our Postgraduate Student Qualified Enough?
The findings of this study revealed that public universities such as the research universities (i.e., USM, UM, UKM, UPM and UTM), seem to have more quality students as compared to other

Table 4: Relationships between type of strategies and the impact of postgraduate recruitment

Strategies	Mean±SD	1	2	3	4	5	6	7	8	9	10	11
Effectiveness of non-activity recruitment strategies	3.700±0.526	1										
Utilization of non-activity recruitment strategies	3.587±0.571	0.611**	1									
Effectiveness of passive recruitment strategies	3.673±0.599	0.662**	0.399**	1								
Utilization of passive recruitment strategies	3.466±0.662	0.468**	0.660**	0.658**	1							
Effectiveness of active recruitment strategies	3.481±0.726	0.478**	0.159	0.618**	0.347**	1						
Utilization of active recruitment strategies	3.177±0.783	0.403**	0.533**	0.482**	0.729**	0.465**	1					
Effectiveness of operational supports	3.876±0.635	0.523**	0.374**	0.669**	0.380**	0.562**	0.318**	1				
Utilization of operational supports	3.556±0.704	0.390**	0.627**	0.498**	0.708**	0.228*	0.661**	0.599**	1			
Effectiveness of financial supports	3.956±0.828	0.311**	0.171	0.455**	0.116	0.380**	0.063	0.664**	0.246**	1		
Utilization of financial supports	3.479±0.899	0.236*	0.451**	0.373**	0.561**	0.189*	0.496**	0.374**	0.620**	0.491**	1	
Impact of postgraduate recruitment strategies	3.822±0.686	0.344**	0.225*	0.457**	0.321**	0.207*	0.114	0.369**	0.199*	0.223*	0.193*	1

*Correlation is significant at 0.05 level, **Correlation is significant at 0.01 level, SD: Standard deviation

non-research universities except for the UIAM, where the theses produced by its students are rated as above average and of high quality by the academicians. Compared to other non-research universities, the quality of the research universities' postgraduate students' theses was high. The contributing factors to high quality theses of students were; sufficient number of academician who obtained Ph.D. good and quality infrastructures such as state of the art laboratory, strong financial supports such as ample research grants to conduct R&D, and employ graduates as research assistants.

5. DISCUSSION

The current practices in recruiting enable Malaysia to draw a large number of foreign students and local students in quantity; however, the degree of effectiveness of the recruiting strategies used in attracting quality talented students is yet to be discovered. Based on the current study, the types of recruitment strategies (non-active recruitment strategies such as reputation of the university, and passive recruitment strategies such as advertisements, as well as financial and operational supports i.e., grants and computer lab), have significant relationships with the talented postgraduate students' recruitment. However, active recruitment strategies (i.e., travelling abroad to recruit students) were not significantly correlated to talented postgraduate recruitment. This finding indicates that the majority of the public universities in Malaysia does not sufficiently apply active recruitment strategies to recruit talented foreign students. Implicitly, the students came to Malaysia because of other reasons such as referrals from friends and advertisement from the Internet. The results from academician are quite similar to postgraduate students' responses such as the implementation of non-active recruiting strategy; passive recruitment strategies were adopted more compared to active recruitment strategy. This action actually helped to triangulate the responses from students related to the recruitment strategies utilized by the universities.

In terms of operational supports, the supports (i.e., computer lab, Ph.D. workspace, etc.) provided by the universities assisted talented postgraduate students in producing quality publications (i.e., high impact journal articles and are indexed by ISI/Scopus). On the other hand, students' innovation through their R&D involvement was not found significant. Similar to operational supports, these financial supports are utilized with the aim of securing more research grants and increase the quality publication in a high impact journal or journal articles that are indexed by ISI/Scopus. These operational and financial supports provided by the universities have attracted postgraduate students to study in the respective public universities. According to the academician, the operational and financial supports did not relate significantly in increasing the number of research assistants. The number of research assistants was determined by the number of research grants secured by the professors, hence, either the operational support was provided or not; this did not affect much. The financial support was provided to help students' with a financial aid, especially when they had limited funding to continue their studies. The purpose of financial support was not for improving students to write a proposal and securing grant or to improve a student's ability

to design a product or process. Normally, the financial support related to research proposal was in the form of research grant, which would be placed under the thesis supervisor. This was also same to the activity related to the student's capability in designing a product or process, which was in the form of research grants or R&D funding under the name of the supervisor or the professor.

Interestingly, the findings of this study reveal that public universities such as the research universities (i.e., USM, UM, UKM, UPM and UTM), seem to have more quality students as compared to other non-research universities except for the UIAM, where the theses produced by its students are rated as above average and of high quality by the academicians. Apparently, the infrastructure such as facilities, etc. and support systems (operational and financial) provided were capable of accommodating quality students; however, the public universities had yet to successfully recruit the talented students. In other words, the recruitment strategies adopted by the universities are not thoroughly studied and implemented systematically. These strategies should be reviewed, and appropriate strategies and support system should be designed and selected if talented students were to be recruited.

The recruitment of postgraduate student strategies and practices in the public universities needs to be reviewed continuously since the needs and wants of the students are ever changing. Currently, public university in Malaysia is not market oriented hence, students especially undergraduates are supplied by the UPU. They do not require hard work to get students however, after MOE is emphasizing more on postgraduate students specifically the international students, public universities have started to find ways to promote students to come and study at their institutions. Comparing to public universities, private universities do not have an obvious problem in attracting new students to come to their institutions because they are profit oriented entities, and marketing is the core function in getting students.

However, for public universities, they have to adjust to the new way of promoting their universities where formerly, the task of getting students was done by, UPU, which is under MOE and before the campaign to recruit more international postgraduate by MOE takes place, their focuses were more on undergraduate than postgraduate students. The issue at that time was, there were not many academicians obtained a Ph.D. and were qualified to teach postgraduate course and also to supervise students. For the last 5 years, university lecturers were encouraged to further their doctoral studies to close the gap by creating more PhD academic staff. The public higher institutions were facing the problem of providing adequate academics with doctorate and at the same recruiting quality international and local postgraduate students.

During the initial phase, the recruitment criteria for foreign students to study in Malaysia HEIs were loosened. Many important factors were not seriously considered such as language test results and others. The recruitment strategies employed were mainly non active such as using website, brochure, education tour to get students without having proper plan and recruitment process management. In most situations, public higher education was not a marketing oriented organization. There was no formal

structure of the marketing unit created because the institutions normally depended on the existing department that was looking into the students' affair such as Students Affair Department. The recruitment strategies utilized by the university were a non-active recruitment strategy compared to an active recruitment strategy as indicated in the study. Non active recruitment strategy does not require high expenditures in promoting the universities, however, the promotion of the university may only circulate among those who are familiar with the university or with the university representatives that attended the education exhibition. Hence, it indicated that the promotional materials about the university are limited to certain areas where it has representatives or alumni.

By formalizing the marketing unit in the university, an active recruitment strategy can be carried out by the promotion team to attract a mass of potential talented and quality postgraduates to study in the respective university. The existence of marketing unit would help universities to understand the student's requirement and types of recruitment strategy to be adopted and significantly, it will help the university to target at the types of students that the university would want. Besides, the operational support such as computer lab and R&D lab and most importantly postgraduate workspace provided by the universities could enhance the students learning process. In terms of the operational support, the local public universities provided the supports that had similar standard or even equivalent to foreign universities.

6. CONCLUSION

This study aims to determine the level of effectiveness and utilization of types of recruitment strategies and supports provided by the HEIs and to find out the relationships of different types of recruitment strategies and supports on impact of postgraduate students' recruitment. The findings were based on the perceptions of two groups of respondents; students and academicians. The results indicated that the types of recruitment strategies (non-active recruitment strategies such as the reputation of the university, and passive recruitment strategies such as advertisements, as well as financial and operational supports such as grants and computer lab), have significant relationships with the talented postgraduate students' recruitment. However, active recruitment strategies (i.e., travelling abroad to recruit students) were not significantly correlated to talented postgraduate recruitment. The results from academicians are quite similar to postgraduate students' responses such as the implementation of non-active recruiting strategy; passive recruitment strategies were adopted more compared to active recruitment strategy.

In terms of operational supports, the supports (i.e., computer lab, Ph.D. workspace, etc.) provided by the universities assisted talented postgraduate students in producing quality publications (i.e., high impact journal articles and are indexed by ISI/Scopus). On the other hand, students' innovation through their R&D involvement was not found significant. Similar to operational supports, these financial supports are utilized with the aim of securing more research grants and increase the quality publication in a high impact journal or journal articles that are indexed by ISI/Scopus. These operational and financial supports provided by the

universities have attracted postgraduate students to study in the respective public universities. According to the academician, the operational and financial supports did not relate significantly in increasing the number of research assistants. Interestingly, from the findings, public universities such as the Research Universities (i.e., USM, UM, UKM, UPM and UTM), seem to have more quality students as compared to other non-Research Universities except for the UIAM, where the theses produced by its students are rated as above average and of high quality by the academicians. The implication of the study was HEIs should plan and align their objectives of recruiting postgraduate students to the recruitment strategies to be selected and the support systems to be provided to the student to ensure higher success of their recruitment strategies.

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