Managers' Perceptions of Human Capital: Important Attributes in the Malaysian Market

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ABSTRACT

A knowledge based economy can be achieved through the development of human capital. Higher Education Institutions, as the main providers of human capital, play a crucial role in producing graduates that meet industry needs. This study investigates the potential gap between important dimensions of graduates' attributes of a Higher Education Institution and the actual performance of these graduates during their employment. The attributes and the performance of these graduates are considered in four broad areas, namely knowledge, skills, abilities and personality. The results of this study will assist the Higher Education Institution in identifying the most important dimensions in the curriculum taught to the students in relation to knowledge, skills, abilities and personality, relevant to the Malaysian market.

Keywords
Human capital, Importance-performance analysis, Attributes, Higher Education Institutions.

1.0 INTRODUCTION

Universities and colleges across the nation have, over a period of years, been the recruiting grounds for numerous industries in search of future employees. Employers often develop long term relationships with those Higher Education Institutions (HEIs) where they have consistent success at recruiting young executives with the right combinations of skills and personal attributes to contribute to their organizations. However, over the recent years, employers have complained that graduates from these institutions of Higher Learning are not able to meet employers' expectations in the current volatile economic environment. Therefore, universities are urged to produce employable graduates who are able to compete in this employment market (Moreau & Leathwood, 2006). The drive to strengthen the competitiveness of graduates has resulted in a new interest in finding training and development programs that support improvement in the productivity of the graduates (Norliza & Abu Hassan, 2004).

2.0 LITERATURE REVIEW

In today's highly competitive job market, employers are seeking those who are both highly skilled and have the appropriate academic qualifications to fill positions in their organizations. However, it has been one of the nation's major concerns in recent years that many graduates do not have the right combination of skills and personal attributes required by the employers, even though some may possess excellent academic qualifications. Hence, they are unable to secure employment which subsequently contributes to an alarming number of unemployed graduates. Based on a Graduate Tracer Study in 2006, 30.7% of graduates remained unemployed six months after their convocation (New Straits Times, 2007).

Much effort has been expended by industries, the government and the universities, as well as colleges, to find solutions to this problem. Industries have accepted undergraduates to undertake an internship program or industrial training at their respective organizations. These are to be completed within a specified period with the general objective of providing relevant hands-on or practical experiences for the undergraduates. Most importantly, through feedback given by the host organizations on the interns or trainees, corrective actions can be identified by the universities and colleges so that future trainees are better prepared for the employment market.

2.1 Graduate Employability

Employability of graduates is a key performance indicator for HEIs (Morley, 2001). In order to compete in the employment market, HEIs are urged to ensure that they are able to produce employable graduates that meet the needs of the industry (Moreau & Leathwood, 2006, Harvey, 2000). Therefore, many HEIs have attempted to embed skills into the curriculum (Atlay & Harris, 2000; Chapple & Tolley, 2000). Meanwhile, Hillage and

Pollard (1998) stated that employability of the graduates depended on the graduates' knowledge, skills and aptitudes.

Nowadays, employers are concerned with graduates' skills, where 'graduate skills' are more important in the recruitment process than the graduates' degree performances (Harvey, 2000). Basically, employers want a graduate who is equipped with interactive, personal (Harvey, 2000) and generic skills (Hager et al., 2002). This finding has also been supported by Purcell et al. (2002) who have revealed that for some employers, a degree may now not represent anything more than a minimum requirement, in addition to other evidence of suitability. According to Candy et al. (1994), HEIs have a leadership role in producing graduates with skills for continuing lifelong personal and professional development.

Nicholson and Cushman (2000) found a difference in perception between industry participants and educators when ranking attributes for success in the retailing field. They concluded that HEIs need to be careful not to dwell on cognitive skills at the expense of affective skills such as 'leadership' and 'decision making' which may be more important for long term success in the retail field.

Traut et al. (1993) explained that there is an "expectation gap" between industry needs and academic preparation. HEIs must work together to close this gap. HEIs need to place more emphasis on the integration of technologies, applications, data and business functions and less on traditional and formal system development in the case of IT. Meanwhile, Candy et al. (1994) found that HEIs have an important role in producing graduates who are not only attuned to the needs of the industry but also equipped with the skills to afford them continuing lifelong personal and professional development.

According to Raybould and Sheedy (2005), for graduates to be attractive to employers, it is important that they are able to show evidence of having the ability to cope with uncertainty, the ability to work under pressure, demonstrate action-planning skills, communication skills, IT skills, team work, readiness to explore and create opportunities, self confidence, self management skills and willingness to learn.

The concept of KSAOs (knowledge, skills, abilities and others personality) is used to look at the qualities of employees in performing their tasks (Noe et al, 2007). Knowledge refers to factual or procedural information that is necessary for successfully performing a task. Knowledge can be classified into tacit and explicit knowledge (Nonaka & Takeuchi, 1995; Polanyi, 1966). Polanyi (1966) described tacit knowledge as knowledge that is difficult to express and is usually transferred by demonstration rather than description, while explicit knowledge is easily written down and easier to communicate and transfer between individuals. Skills refer to an individual's level of proficiency at performing a particular task or the capability to perform a job well. Skills can be divided into technical elements and behavioural elements (Noe et al, 2007). Technical elements measure "hard" technical skills while behavioural elements measure "soft" skills which include the attitudes and approaches applicants take to their work, such as the ability to collaborate on team projects. Ability, the opposite of skills, refers to a more general enduring capability that an individual possesses, such as analytical skills, statistical and quantitative skills, writing skills, etc. Ability can be classified into intellectual abilities and physical abilities.

For others personality, the discussion is focused on Big Five Personality traits (Stephen & Coulter, 2009) or Global Factors Personality (Russell & Karol, 1994). They comprise openness, conscientiousness, extroversion, agreeableness and neuroticism (Costa & McCrae, 1992; Russell & Karol, 1994; Stephen & Coulter, 2009). Openness is an appreciation of art, emotion, adventure, unusual ideas, curiosity, and a variety of experiences. Conscientiousness is a tendency to show self-discipline, act dutifully, and to aim for achievement. It is planned rather than spontaneous behavior. Extroversion is energy, positive emotions, urgency, and the tendency to seek stimulation in the company of others. Agreeableness is a tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. Neuroticism is a susceptibility to easily experience unpleasant emotions, such as anger, anxiety, depression, or vulnerability.

2.2 Important-Performance Analysis (IPA)

The important-performance concept is based on multi-attribute models. This technique identifies the performance of an attribute that can be changed without affecting the importance of the attribute (Kitcharoen, 2004). According to Nale et al. (2000) a particular application of the technique starts with an identification of the attributes that are relevant to the choice situation investigated.

This approach, also known as quadrant analysis, was introduced by Martilla and James (1977), and focuses on pinpointing those quality and service elements that; a) are most important to customers and/or are likely to make the strongest contribution to overall customer satisfaction and loyalty; and b) are in need of improvement because customers' evaluations of the company's performance on these elements are relatively unfavourable (i.e. customer are dissatisfied and/or perceive that the company's performance is in need of improvement). By using the central tendency measure such as mean, performance scores are ordered and classified into high or low categories, then by pairing these two sets of rankings, each attribute is placed into one of the four quadrants that will be displayed graphically using an importance-performance matrix as

in Figure 1 (Eskildsen & Kristensen, 2006). With little modification, IPA has been applied to a diverse range of contexts including hospital services (Yavas & Shemwell, 2001), tourism management (Wade & Eagles, 2003), education (Nale et al., 2000; O'Neill et al., 2004) and service quality (Ennew et al., 1993; Ford et al., 1999).

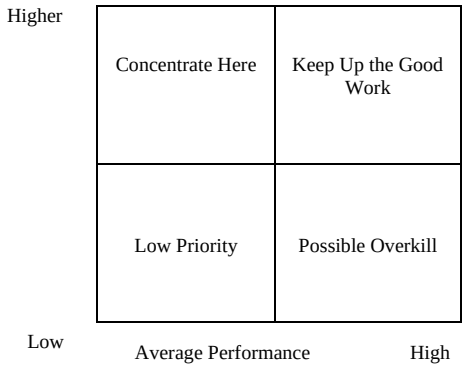


Figure 1: Importance-Performance Analysis

The IPA matrix consists of four quadrants; concentrate here, keep up the good work, low priority and possible overkill Oliver (1997). The explanation for each quadrant is as below:

- Keep up the good work (High importance, high performance). These elements or attributes are assumed to be key drivers of consumer satisfaction/preference, and the management's job is to ensure that the organization continues to deliver/perform well in these areas.
- Concentrate here (High importance, low performance). These elements or attributes, also assumed to be key drivers of consumer satisfaction/preference, should be viewed as critical performance shortfalls, and the management's responsibility is to ensure that adequate resources are invested in improving performance in these areas. These areas are priorities for improvement.
- Low priority (Low importance, low performance). These elements or attributes are assumed to be relatively unimportant, such that poor performance should not be given a great deal of priority or attention by management.
- Possible overkill (Low importance, high performance). These elements or attributes, also assumed to be relatively unimportant, should be viewed as area of performance "overkill", and management may want to redirect resources from these elements to high-priority areas in need of improved performance.

3.0 METHODOLOGY

The study was carried out in two phases. Phase 1 involved a focus group session of 10 members intended to extract information from managers through a brainstorming session. This session focused on the growing concern among employers about the relevance of the HEI curriculum in the face of developments in the real world today. In Phase 2, the dominant theme(s) emerging from the focus group study were used to establish a questionnaire appropriate for the study involving industries from across the board.

The questionnaire was distributed to the managers of all the companies which have employed graduates from this HEI. This exercise enabled the examination of the gap between the perceptions of managers towards the important characteristics of graduates and their actual performance in terms of their knowledge, skills, abilities and personality.

3.1 Instrument

The quality of a higher education curriculum of a HEI was evaluated based on the important-performance paradigm introduced by Martilla and James (1977). This paradigm was used to analyse KSAO dimensions, namely knowledge, skills, abilities and personality. The knowledge dimensions can be divided into two parts, namely explicit and tacit knowledge. The skills dimension can be divided into hard skills and soft skills. Meanwhile, abilities dimensions can be divided into intellectual abilities and physical abilities. Lastly, personality dimensions were divided into five parts or also known as big five personality i.e. conscientiousness, agreeableness, neuroticism, openness and extroversion. Using these dimensions, questions were derived through the focus group interview and specific issues put forward by the group. The researchers, being the moderators of the focus group, sought unprompted discussion of the issues contributing to graduate unemployment in Malaysian. Finally, the relevant questions were presented in the form of a questionnaire to be completed by managers who employed graduates from the HEI for completion.

The questionnaire was divided into two sections. Section A is based on demographic profiles of the respondents while Section B measured the managers' perceptions of important characteristics and the performance of the graduates. Pre-analysis was carried out using factor analysis and reliability analysis. Descriptive analysis was then used to describe the data. The findings were presented in the form of a quadrant analysis.

3.2 Sample

In determining the sample size, a random sampling method has been employed. The graduates were students from Business Management Faculty of a HEI located in Peninsular Malaysia. The database used to establish the sampling frame was obtained from the records of the HEI's Alumni. A total of one thousand and sixty five questionnaires were distributed personally to their managers or supervisors.

4.0 RESULTS AND DISCUSSION

4.1 Respondents Profile

Table 1 presents respondents' profiles for the study. Four hundred and seventy nine completed questionnaires were received representing a 45% response rate. The majority of the graduates were attached to service companies (64%) followed by manufacturing and construction industry with 19% and 8% respectively. Most of these graduates were employed by companies located at the central region of Peninsular Malaysia (54%). Half of the respondents of the survey were in top management positions (52%) and the majority of their executive staff were degree holders (40%).

Table 1: Respondents Profile

Items	%	Items	%
Type of industry:		Highest qualification held by executive level employees:	
• Manufacturing	19	• Postgraduate degree	39
• Construction	8	• Degree	40
• Service	64	• Diploma	18
• Information Technology	1	• Others	3
• Heavy industry	6		
• Others	2		
Location of company:		Highest education level (respondent):	
• Northern	11	• Postgraduate degree	33
• Southern	7	• Degree	45
• Central	54	• Diploma	11
• Eastern	15	• STPM/SPM	8
• Western	13	• Others	3
Type of company:		Number of years experience:	
• Holding/parent	54	• 1 to 5 years	36
• Subsidiary	36	• 6 to 10 years	40
• Others	10	• More than 10 years	24
Number of employees:		Race:	
• Less than 20	13	• Malay	63
• 20 to 50	45	• Chinese	32
• 51 to 150	8	• Indian	5
• 151 to 500	8	• Others	0
• More than500	26		
Position at the company:		Gender:	
• Top management	52	• Male	70
• Middle management	36	• Female	30
• Lower management	12		

4.2 Reliability of the instrument

The reliability of the data was verified using Cronbach alpha, where the closer the Cronbach alpha is to 1, the higher the internal consistency reliability (Sekaran, 2000). The alpha coefficients for this study are all above 0.70 and were concluded as being reliable (Hair et al., 2006b; Nunnally, 1978). Table 2 presents the Cronbach alpha coefficient for each variable. In all cases, it was found that the reliability scores for performance were greater than the reliability scores for expectations, indicating that respondents found it relatively easier to assess the performance of graduates, rather than to estimate their own expectations of the graduates under their supervision.

Table 2: Coefficient of Cronbach Alpha for Importance and Actual Performance scale

Dimensions	Items	Imp	Actual Perf	No. of items
Knowledge	Explicit knowledge	0.886	0.922	5
	Tacit knowledge	0.870	0.917	4
Skills	Hard skills	0.919	0.928	5
	Soft skills	0.838	0.909	5
Abilities	Intellectual abilities	0.906	0.919	5
	Physical abilities	0.889	0.908	4
Personality	Conscientiousness	0.914	0.932	5
	Agreeableness	0.822	0.902	4
	Neuroticism	0.879	0.914	4
	Openness	0.890	0.934	5
	Extroversion	0.867	0.914	4

Note: Imp – importance
Perf – performance

4.3 Importance-performance analysis

Table 3 presents a summary of managers' importance-performance means for 11 scale items. The negative gap value between importance-performance means reflect that the graduates' performances have not met the managers' perceptions of the importance attributes that should be possessed by these graduates. In other words, graduates from the HEI were under performing significantly in all attributes rated important by the supervisors and managers.

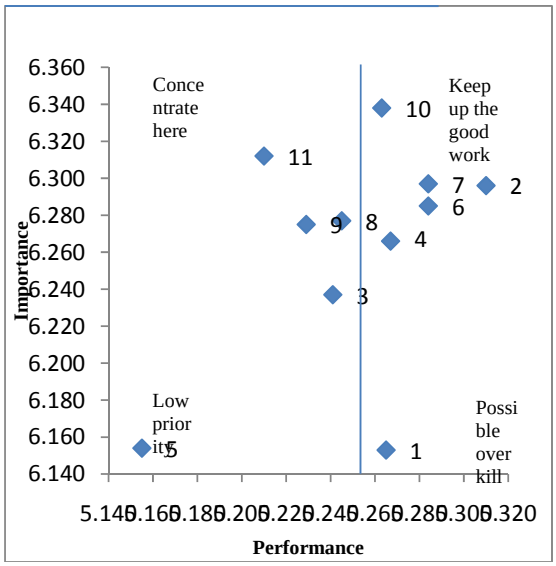
Table 3: Summary of Means

Dimensions	Items	Imp	Perf	Gap (P-I)
Knowledge	Explicit knowledge	6.297	5.284	-1.013
	Tacit knowledge	6.237	5.241	-0.996
Skills	Hard skills	6.338	5.263	-1.075
	Soft skills	6.275	5.229	-1.046
Abilities	Intellectual abilities	6.296	5.31	-0.986
	Physical abilities	6.153	5.265	-0.888
Personality	Conscientiousness	6.266	5.267	-0.999
	Agreeableness	6.154	5.155	-0.999
	Neuroticism	6.285	5.284	-1.001
	Openness	6.277	5.245	-1.032
	Extroversion	6.312	5.21	-1.102
OVERALL		6.263	5.250	

Note: (P-I) value is signifincant at $p < 0.05$

The importance-performance map is presented in Figure 2. The data used to construct the importance-performance grid were the overall means of importance and performance for all scale items which are 6.263 and 5.250 respectively. Three items fall into the "concentrate here" quadrants (high importance/low performance) which are extrovert personality, soft skills and openness

personality. HEIs need to take immediate action on these human capital attributes. While five items were located in the quadrant "keep up the good work" (high importance/high performance), which are explicit knowledge, neuroticism personality, intellectual abilities, conscientiousness personality and hard skills. These five attributes are the strength attributes possessed by graduates from HEIs in the sample, which means that graduates produced by this institution possess good intellectual abilities, explicit knowledge, hard skills and neuroticism and conscientious personalities. The two attributes that fall in the "low priority" quadrant are in relation to tacit knowledge and agreeableness. This indicates that both these attributes do not require immediate resource allocation as they are performing at the level appropriate to the importance attached to them at the present time. However, the HEI should hold in reserve resources to cope with a possible change of importance attached to them due to changes in the employment environment in the future. Physical ability is the only attribute located in the "possible overkill" quadrant. This requires the HEI to immediately remove resources allocated to developing this attribute and redeploy the resources saved to developing attributes located in the "concentrate here" quadrant.



Note: (1-physical abilities, 2-intellectual abilities, 3-tacit knowledge, 4-conscientiousness, 5-agreeableness, 6-neuroticism, 7-explicit knowledge, 8-openness, 9-soft skills, 10-hard skills, 11-extroversion)

Figure 2: Importance-Performance Map

5.0 CONCLUSION AND FUTURE RESEARCH

This study has provided evidence of the usefulness of the IPA in designing human capital development strategies for the HEI. The outcome of the analysis provides impetus in enhancing the quality of HEIs curriculum and making it relevant to the needs of the market and industries. The study highlights the practicality of the IPA as a means of assessing and directing continuous human capital development efforts within the higher education sector. The use of the IPA in evaluating managers' perceptions of graduates can identify how graduates are performing, identify specific problem areas and help target corresponding improvement efforts.

The study reveals the factors relevant to the managers' perceptions of the graduates and their satisfaction level with the performance of the HEI's graduates. The results of this study indicate that managers attach different weightings to different aspects of the graduates' performance and, therefore, curriculum development efforts should be directed towards attributes that are expected of the graduates. This will allow for corrective actions, which can then be taken to improve perceived problem areas. The findings of this study suggest that the HEI should target improvements or inclusions of soft skills and specific personality development components pertaining to openness and extroversion in its Business Management curriculum as part of human capital development strategies of the HEI. The HEI should reduce its resources in enhancing physical abilities in the curriculum and maintain a low level of resource deployment in developing tacit knowledge and a sense of agreeableness in the manner the curriculum is administered.

Clearly, the HEI should undertake extensive employer research in order to identify those factors expected in their evaluations of graduates' performance. Consequently, this information can assist in decision making on a range of fronts, including facilities development, positioning attributes, curriculum development and the delivery of the core curriculum.

It should be noted that this is a case study of graduates from an HEI. Future research could seek to establish whether a consistent pattern is observable across graduates from all other HEIs in different categories of industries and the different levels of managers' expectations within the provision of HEI. It also should be noted that the quantitative analysis used does not explain why the observed ratings occurred. A supplementary exploratory study is required to address this concern. However, it must be remembered that the managers' expectations and performance ratings for specific attributes change over time due to changes in the macro environment.

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