

IMPORTANCE OF EMPLOYABILITY SKILLS AS PERCEIVED BY EMPLOYERS OF MALAYSIAN MANUFACTURING INDUSTRY

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ABSTRACT

Employability skills are one of the soft skills which are as important as technical skills and should be acquired by an employee in the industrial sector today. Unfortunately not all employees today acquired employability skills that are expected by the employer. This study is carried out to identify aspects of the employability skills and its relationship with the requirement of the employer in the manufacturing industries. Samples for the research consist of 107 employers from manufacturing industry and this study has been done to companies in the manufacturing industry and grouped into three which are type of industry, company size and ownership status. Analysis of the survey, managed to determine important aspects of the employability skills needed by employers in the manufacturing industries. The skills were ranked and results showed that all seven of the employability were considered important by Malaysian manufacturing industry with the basic skill, thinking skill, sources skill, resources skill, system and technology skill and personal qualities were most important skills whereas informational skill was considered moderately important.

Keywords: *employability skills, soft skills, technical skills, manufacturing industry*

INTRODUCTION

Malaysia is going through an economic transformation and fast entering the industrialization era. This development shows that its industries are progressing very fast and becoming more technologically advanced. Therefore, Malaysia needs more expert work force to fulfill the needs and requirement of the industries.

Malaysia's First Industrial Master Plan reported that the manufacturing sector employed 12,000 engineers and technician which was 2.4 % of the

labor force. This is approximately 6-8 % lower compared to progressing country (Lim, 1994). He also stated that low supply of engineers and technicians gave a big impact on the programmed to industrialize the nation which will cause the low absorption of technological product ability and this will result in the technological indigenization to be slow and the dependency to foreign expatriates for technological support will continue.

According to La Belle (1986), the human capital model views an economic role of education in which individuals pursue the necessary knowledge and skills in order to manage the various aspects of economy and to facilitate its growth through the use of modern technology. In both industrial and developing countries, higher levels of education increase the chances that an individual will be employed.

Meanwhile specific statement on graduate employability according to 'The Ministry of Higher Education of Malaysia' (MOHE), that is to produce competent graduates to fulfill national and international manpower needs of the graduates employed in their relevant fields within six months of their graduation. This is the fourth objective of MOHE. Meanwhile results from 2008 tracer study done by MOHE, out of 13,002 first degree technical graduates, 35.5% (4,616) were unemployed. Meanwhile out of 5,515 diploma technical graduates, 25.9% (1,428) were unemployed (MOHE, 2009).

EMPLOYABILITY SKILLS – IS IT AN ISSUE?

Employability skill is a non-technical ability and is part of the work skills which is as important as technical skill and should be acquired by everybody in the industrial field. Industrial employer agrees that employability skill is important to be acquired by their employees to be outstanding in their field (Soo and Juma'ayah, 2001). This statement is supported by Ramlee (2002) who found that through his research, technical graduates in Malaysia has mastered their technical skill but employers feel dissatisfied of their employees because they lack motivational skills, communication skills, interpersonal skills, critical thinking, problem solving and entrepreneurship skill. These are part of the employability skills.

Syed Hussain (2005) in his study found that technical graduates cannot fulfill the needs and requirements of employer because the technical curriculum used was designed to prepare the graduates with basic knowledge and theory of technical aspects but lacking in practical

training, experience and qualification. He also found that the number of technical graduates increased rapidly; there were 20,821 technical graduates in 2001, and 41,282 technical graduates in 2003. And the numbers kept on increasing, up until 2005, there was an increase of 58.2% and totaling 65,304 technical graduates. From this total about 62.3% are still unemployed that is about 40,684 graduates. His study also indicated the reasons for this phenomenon are due to two factors: lack of the skills and experience needed and required by the industries and secondly lack of practical training and qualification sufficient to prepare the students with the demand and requirement of the employers.

Mohamed and Mohd (2005) in their research found that graduates perception on the relevance of the content of their course with employability skills is low which they feel the content of the course did not inculcate enough employability skills for them.

According to Shere and Eadie stated in Kathleen (2005);

“Employability skills are not job specific, but are skills which cut horizontally across all industries and vertically across all jobs from entry level to chief executive officer”.

This statement shows the importance of acquiring employability skills amongst employees in the industrial sector. According to Kathleen (2005) through her research on technical graduates in United States also indicated that employer was not satisfied with the application of technical graduates not because of their lack of technical skill or knowledge but due to the lack of non-technical abilities.

METHODOLOGY

The instrument used in this research was questionnaires which was adapted from Secretary’s Commission on Achieving Necessary Skills (SCANS 1991). The items in the questionnaires included most of the elements of employability skills perceived necessary by industries in Malaysia. The employability skills questionnaires contained seven constructs namely: (1) Basic skills, (2) Thinking Skills, (3) Resource management skills, (4) Informational skills, (5) Interpersonal skills, (6) System and technology skills, and (7) Personal quality skills. The questionnaires were analyzed using ANOVA.

Employer chosen as the research sample was categorized into three that is according to type, size and ownership status of the company. Number of company categorized into types, size and ownership status of manufacturing industry is shown in Table 1. The categories were chosen because they are the main trait of manufacturing industry. The objective of choosing these categories are to investigate to what extend does the employability aspects identified are important to employers in the manufacturing industry according to these categories. 107 employers were given a set of questionnaires on employability skills. These employers were segregated accordingly to the three categories, and the results were discussed according to these categories.

The employers chosen as research sample were grouped into five type of manufacturing industry which were electrical and electronic product (E & E), metal based products (MB), machinery and equipment (ME), transport equipment (TE) and other kinds of product industry (OT). The type of company is based on the MIDA's categorization of manufacturing industry in Malaysia (MIDA, 2008). Companies participating in this research were grouped into three which is small, medium and large company. The size of the company is based on the number of workers in the company. Companies were again grouped into three according to company's ownership status whether they are local, multinational or Joint Venture Company.

Table 1: Distribution of Manufacturing Industry according to type, size and ownership status of the company.

Type of Manufacturing Industry	No.
Electrical & Electronic Product	31
Metal Based Products	26
Machinery & Equipment	21
Transport Equipment	20
Others	9
Company Size	
Small	44
Medium	36
Large	27
Ownership Status	
Local	58
Multinational	35
Joint Venture	14

N=107

RESULTS AND DISCUSSION

This section will discuss on the findings of the importance of employability skills by employers from five different types of manufacturing industry (electrical and electronic, metal based, machinery and equipment, transportation equipment and other type of company), employers from three different groups of company size (small, medium and large) and also employers from three different ownership status of company (local, multinational and Joint Venture).

a) Importance of Employability Skills as Perceived by Employers from Different Types of Manufacturing Industry

Analysis of the responses of employers in five types of manufacturing industry on the importance of seven employability skills was shown in Table 2. The results showed that employers in all five categories of manufacturing industry are in consensus on the importance for all seven of the employability skills. The mean score for each employer in the five types of manufacturing industry showed little difference, and for each of the mean showed medium ranges of standard deviations indicating a relatively small variability in the distribution.

Table 2: Importance of Employability Skills as Perceived by Employers From Different Types of Manufacturing Industry

Skills	Type of Manufacturing Industry	n	Mean	SD	Df	F	P
Basic Skill	Electrical & Electronic Product	31	4.33	.39	102	.43	.651
	Metal Based Products	26	4.22	.55			
	Machinery & Equipment	21	4.43	.40			
	Transport Equipment	20	4.44	.51			
	Others	9	4.01	.47			
	Total	107	4.21	.46			
Thinking Skill	Electrical & Electronic Product	31	4.33	.44	102	.44	.643.
	Metal Based Products	26	4.43	.35			
	Machinery & Equipment	21	4.44	.27			
	Transport Equipment	20	4.44	.48			
	Others	9	4.11	.60			
	Total	107	4.27	.42			
Resources Skill	Electrical & Electronic Product	31	4.33	.34	102	.54	.663
	Metal Based Products	26	4.10	.45			
	Machinery & Equipment	21	4.12	.56			
	Transport Equipment	20	3.65	.68			
	Others	9	4.21	.64			
	Total	107	4.00	0.53			
Informational Skill	Electrical & Electronic Product	31	4.33	.44	102	.61	.549
	Metal Based Products	26	4.12	.69			
	Machinery & Equipment	21	3.65	.46			
	Transport Equipment	20	3.50	.55			
	Others	9	4.25	.54			
	Total	107	3.89	0.54			
Interpersonal Skill	Electrical & Electronic Product	31	4.33	.44	102	1.61	.202
	Metal Based Products	26	4.65	.21			
	Machinery & Equipment	21	4.61	.30			
	Transport Equipment	20	4.10	.44			
	Others	9	4.22	.71			
	Total	107	4.30	0.36			
System & Technology Skill	Electrical & Electronic Product	31	4.33	.44	102	.77	.465
	Metal Based Products	26	4.12	.63			
	Machinery & Equipment	21	3.65	.60			
	Transport Equipment	20	4.10	.75			
	Others	9	4.17	.69			
	Total	107	4.01	0.62			
Personal Qualities	Electrical & Electronic Product	31	4.33	.44	102	1.17	.147
	Metal Based Products	26	4.12	.32			
	Machinery & Equipment	21	3.65	.44			
	Transport Equipment	20	4.15	.56			
	Others	9	4.18	.59			
	Total	107	4.01	0.47			

Note: *p <.05, (significant at level .05)

b) Importance of Employability Skills as Perceived by Employers from Different Groups of Company Size

The results showed that there are no significant differences of the importance of the thinking skills, resource skills, system and technology skills (Refer to Table 3). Whereas, the mean score for basic skills showed a significant difference of opinion by employers. However, according to Cohen effect size (Sherri, 2003 and Wikipedia, 2009), the significant difference of opinion can be further tested for its effect size (eta squared, η^2) to accept or ignore the differences. If the effect size (η^2) is below than 0.2, then the significant difference of opinion can be ignored. The value of eta squared, η^2 , for basic skills, showed that the effect size is too small ($\eta^2=0.09$). It is the same with the informational skills, the mean score is [F(107)=2.60, $p<0.05$] but eta squared value is $\eta^2=0.09$. The mean score for interpersonal skill showed a significant difference [F(107)=4.34, $p<0.05$], but can be ignored because eta squared value is $\eta^2=0.14$. The mean score for personal qualities, [F(107)=3.55, $p<0.05$] showed significant difference but the eta squared value is small, $\eta^2=0.12$.

Based on the Cohen effect size (Sherri, 2003; Wikipedia, 2009), the value showed that only 9% of basic skill, 9 % of informational skill, 14 % of interpersonal skill and 12 % of personal qualities indicated a difference of opinion of these employers according to company size. These showed that employers in different sizes of company are in consensus on employability skills aspect that is important to them.

Amongst these three types of company sizes, it is found that large size company emphasized the importance of acquisition of employability skills among their workers compared to smaller size company. The specific employability skills which were considered very important for all employers regardless of their size were thinking skill, interpersonal skill and personal qualities. These skills were considered most important to be acquired by employees before they come to work.

Employers from large size company chose interpersonal skill as the most important skill to be possessed by their employee. And within the interpersonal skill, customer service, exercises leadership and able to negotiate were considered most important. Whereas, for informational skill, mainly to maintain information, interpret and disseminate information were categorized as moderately important to be possessed by their employee.

Table 3: Importance of Employability Skills as Perceived by Employers from Different Groups of Company Size

Skills	Company size	N	Mean X	SD	Df	F	P
Basic Skill	Small	44	4.08	.54	104	3.74	.007*
	Medium	36	4.43	.60			
	Large	27	3.96	.40			
Thinking Skill	Small	44	4.50	.42	104	.69	.599
	Medium	36	4.59	.33			
	Large	27	4.58	.28			
Resource Skill	Small	44	4.34	.63	104	2.32	.061
	Medium	36	4.37	.56			
	Large	27	4.69	.08			
Informational Skill	Small	41	3.62	.90	104	2.60	.040*
	Medium	36	3.94	.99			
	Large	27	4.16	.47			
Interpersonal Skill	Small	41	4.52	.30	104	4.34	.003*
	Medium	36	4.75	.23			
	Large	27	4.57	.25			
System and Technology Skill	Small	41	4.15	.98	104	.53	.714
	Medium	36	4.33	.66			
	Large	27	4.17	.61			
Personal Qualities	Small	41	4.30	.43	104	3.55	.009*
	Medium	36	4.61	.39			
	Large	27	4.46	.35			

Note: *p <.05, (significant at level .05)

c) Importance of Employability Skills as Perceived by Employers from Company with Different Ownership Status

Data analysis in Table 4 showed that there is significant difference of opinion ($p < 0.5$) between employers grouped in ownership status for thinking skill, resource skill, informational skill, interpersonal skill, system and technology skill and personal quality skill.

For these skills, eta squared (η^2) value were calculated to see whether the difference of opinion should be accepted or ignored. The mean score for thinking skill showed, $[F(107)=5.44, p < 0.05]$ and eta squared value $\eta^2=0.09$, showed there is a small size effect. Mean score for resource score, $[F(107)=5.54, p < 0.05]$ and eta squared value $\eta^2=0.09$ showed there is a small size effect. Mean score for resource skill, $[F(107)=6.66, p < 0.05]$ and eta squared value $\eta^2=0.11$ showed there is a small size effect. Mean score for resource skill, $[F(107)=3.40, p < 0.05]$ and eta squared value $\eta^2=0.06$ showed there is a small size effect. Mean score for system and technology skill, $[F(107)=9.42, p < 0.05]$ and eta squared value $\eta^2=0.15$ showed there is a small size effect. Mean score for personal quality skill, $[F(107)=5.17, p < 0.05]$ and eta squared value

Mean score for system and technology skill , [F(107)=9.42, p<0.05] and eta squared value $\eta^2=0.15$ showed there is a small size effect.

The effect size value, showed that only 9% of basic skill, 9 % of resource skill, 11 % of informational skill and 6 % of interpersonal skill, 15% system and technology and 9% quality personal showed a difference of opinion from these employers according to ownership status. The effect is considered very small and the difference of opinion can be ignored.

Table 4: Importance of Employability Skills as Perceived by Employers from Company with Different Ownership Status

Skill	Ownership Status	n	Mean X	SD	Df	F	P
Basic Skill	Local	58	4.22	.55	104	.43	.653
	Multinational	35	4.17	.61			
	Joint Venture	14	4.07	.51			
Thinking Skill	Local	58	4.66	.35	104	5.44	.006*
	Multinational	35	4.43	.27			
	Joint Venture	14	4.44	.48			
Resource Skill	Local	58	4.58	.45	104	5.54	.005*
	Multinational	35	4.35	.56			
	Joint Venture	14	4.10	.68			
Informational Skill	Local	58	4.12	.75	104	6.66	.002*
	Multinational	35	3.65	.88			
	Joint Venture	14	3.33	1.06			
Interpersonal Skill	Local	58	4.65	.21	104	3.40	.037*
	Multinational	35	4.61	.30			
	Joint Venture	14	4.44	.44			
Personal Qualities	Local	58	4.50	.63	104	9.42	.000*
	Multinational	35	3.92	.60			
	Joint Venture	14	3.81	1.28			
Personal Qualities	Local	58	4.53	.32	104	5.17	.007*
	Multinational	35	4.43	.44			
	Joint Venture	14	4.15	.56			

Note: *p <.05, (significant at level .05)

Employers from company with multinational and joint venture ownership status agreed that all aspect investigated are important except informational and system and technology skill are considered moderately important. As a whole, company with local ownership status put an emphasis on the importance of all the employability skill to acquire by their employees compared to multinational and Joint Venture Company.

d) Cumulative Result Analysis on the Importance of Employability Skills as Perceived by Employers of Manufacturing Industry

The cumulative result among employers in Malaysian manufacturing industry showed that customer service, work safety and integrity and honesty were most important among the employability skill. Mean while, skills that are considered moderately important were organizing and maintain information, interpreting and disseminating information and adaptability or flexibility (refer Table 5).

Table 5: Overall employability skills aspects descriptive analysis

Skills	Aspects of Employability Skill	Mean	SD
Basic Skill	Reading	4.21	0.56
	Writing	4.20	0.53
	Mathematics/Arithmetic	4.05	0.62
	Listening	4.35	0.69
	Speaking	4.13	0.65
Thinking Skill	Creative/Innovative Thinking	4.63	0.66
	Decision Making	4.26	0.55
	Problem Solving	4.79	0.73
	Seeing Things In The Mind's Eye	4.43	0.61
	Knowing How To Learn	4.62	0.57
	Reasoning	4.61	0.62
Resources Skill	Manages Time	4.34	0.69
	Manages Money	4.46	0.65
	Manages Materials and Facility Resources	4.57	0.66
	Manages Human Resources	4.21	0.59
	Manages Risks	4.50	0.65
Informational Skill	Acquires and Evaluates Information	4.60	0.66
	Organizes and Maintains Information	3.73	0.55
	Interprets and Disseminate Information	3.85	0.73
	Uses Computers To Process Information	4.01	0.61
Interpersonal Skill	Participates as a Member of a Team	4.42	0.57
	Teaches Others	4.62	0.60
	Customer Service	4.98	0.66
	Exercises Leadership	4.64	0.55
	Negotiates	4.75	0.73
	Work with Cultural Diversity	4.28	0.61
System And Technology Skill	Understands System	4.31	0.69
	Monitor and Correct Performance	4.00	0.62
	Select Technology	4.47	0.69
	Applies Technology to Task	4.19	0.65
	Maintain and Troubleshoot Technology	4.16	0.66
Personal Qualities	Responsibility	4.59	0.55
	Self-Esteem	4.38	0.66
	Sociability	4.08	0.55
	Self-Management	4.40	0.73
	Integrity/Honesty	4.80	0.61
	Conscientiousness	4.61	0.66
	Ability to Work Without Supervision	3.93	0.55
	Adaptability/Flexibility	4.35	0.73
Work Safety	4.93	0.61	

Among the seven employability skills, all the manufacturing employers agreed that interpersonal and thinking skills were most important. For basic skills, resource skills, system and technology skills and personal quality skills were considered important and informational skills are moderately important (refer Table 6).

Table 6: Mean score for overall employability skills.

Skills	Mean	Standard Deviation SD
Basic	4.19	.56
Thinking	4.56	.37
Resource	4.45	.54
Informational	3.87	.89
Interpersonal	4.62	.29
System and Technology	4.22	.79
Personal Quality	4.45	.42

Figure 1 showed the ranking order of importance of the employability skills aspects from the manufacturing employer's perceptions.

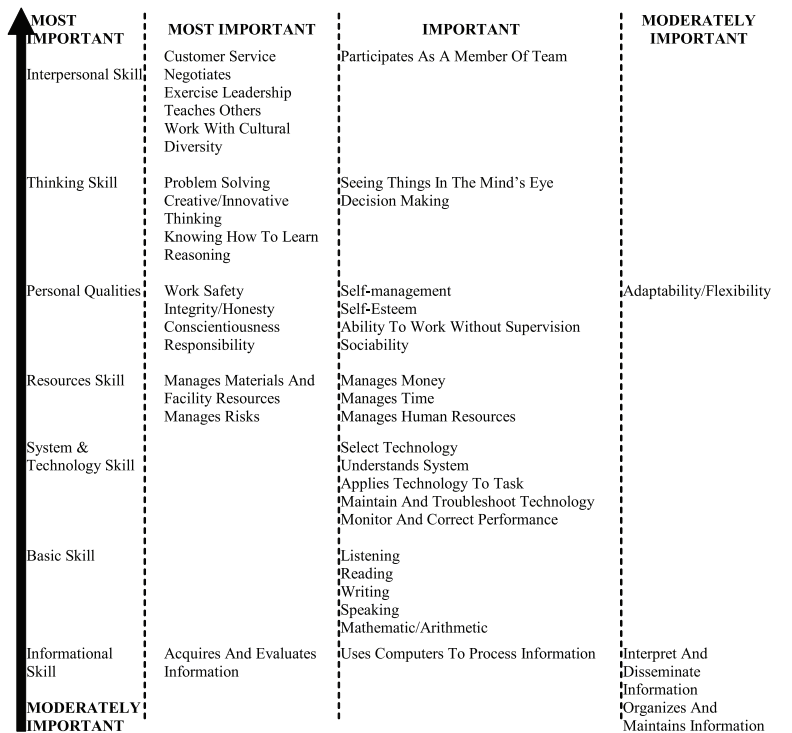


Figure 1: Ranking order of the importance of employability skills aspects from the manufacturing employer's perceptions.

CONCLUSION

Lack of employability skills is one of the problems which employers are facing with graduates or their future employees. Various researches on employability skills have been conducted nationally and internationally and it was found that many technical graduates nowadays are lacking in employability skills rather than technical skills.

The results of these findings can be useful as a guide for technical instructors or lecturer to plan which employability skill should be emphasis, and considered important to be acquired by students before working in the manufacturing industry. The findings also can be useful to graduates or job seekers in the manufacturing industry to be prepared the expectation of these employers.

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