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Integration of social skills and social values in the National Dual Training System (NDTS) in the Malaysian automotive sector: employers' perspective

Abstract

The issue of the employability of graduates has made social skills, also known as, soft skills an important goal for all education institutions and local skills training institutes in Malaysia. Aside from academic performance and skills in specific core skills, social skills play a vital role as elements of recruitment by employers. The Department of Skill Development (DSD), Ministry of Human Resources, has applied elements of social skills to the National Dual Training System (NDTS) curriculum development. As a result, this study aims to review employers' perceptions of social skills and social values among NDTS apprentices. The study used a quantitative approach and the data was collected from respondent groups that include managers, supervisors and personnel involved in recruitment in their organization. The study concludes that social skills are as important as technical skills in automotive industry in Malaysia and suggests that both training institutes and the workplace (during training) should play a role in equipping apprentices with the required social skills. Furthermore, the study found that teamwork and personal qualities were the most importance social skills required by the labour market and current NDTS apprentices almost fulfil such expectations.

1 Introduction

The need for skilled human resources in the new era of the knowledge-based-economy (k-economy) is crucial for Malaysia in becoming a developed nation. Malaysia's vision is to become a developed country by the year 2020, and human capital has been identified that as the most critical element required in realizing this aspiration and the most crucial investment to make. Rapid changes in technology and the increasing complexity of work processes in Malaysian industries have created new demands on the skilled workforce, in particular for knowledge-workers (k-workers) as stipulated by the Malaysia Knowledge-Based Economy Master Plan (Malaysia 2002). The development of human capital in Malaysia requires the collaboration of multiple ministries and the private sector to address all segments of the population. Technical Education and Vocational Training (TEVT) in Malaysia was emphasized in the Ninth and Tenth Malaysia Plans for the production of more skilled workers to be competitive with developed countries such as South Korea, United Kingdom, United States and others. Within the integrated human capital and talent development framework, one of the vital education themes is mainstreaming and broadening TEVT.

Technical Education and Vocational Training (TVET) is one of the most complex subsectors of education, covering a wide range of ages and profiles. TEVT has become a critical part of

mainstream education in many developed countries. In the Tenth Malaysian Plan (2011-2015), mainstreaming and broadening access to quality technical education and vocational training features as one of the main agendas in raising the skills of Malaysians to increase employability. The purpose of TEVT is to increase the skilled human capital base in Malaysia by providing quality education to learners possessed of a keen interest, ability and talent in technical and vocational fields. TEVT aims to provide skills for immediate application to the labour market. In the Tenth Malaysian Plan, the following four strategies are to be adopted for mainstreaming and broadening access to quality TEVT: (a) improving the perception of TEVT and attracting more trainees; (b) developing highly effective instructors; (c) upgrading and harmonizing the TEVT curriculum quality in line with industry requirements; and (d) streamlining the delivery of TEVT.

The government took an important step when it decided to implement the NDTS in 2005. Based on Germany's Dual System model, the NDTS is to produce knowledge workers (k-workers) under a comprehensive training system, to meet the prevailing and future requirements that encompass all job levels in every economic sector. A knowledge worker refers to an individual that has at least one technical competency (e.g. automotive mechatronic or tool-making or steel fabrication), several social skills (e.g. communication skills, teamwork and self-discipline), competent in some learning methodologies (e.g. ICT skills, information searching skills, and consultation with experts) and several social values (e.g. diligence, scrupulousness and patience) (Ministry of Human Resource issues, 2008). The most distinguishing feature of the NDTS compared to other skills training programmes is its requirement for coaches and trainers to integrate human and social skills as well as learning and methodological skills explicitly in the curriculum. The integration of social skills and social values in NDTS curriculum is a new value-added component, which is required by workers in the present competitive world. Social skills are the skills people use to interact and communicate with others to assist in the development status of a social structure. Social skills associated with communication, problem solving, decision-making, self-discipline and interpersonal skills are those which enable a person to initiate and sustain positive social relationships (Ministry of Human Resource, 2008). Social values are individual belief systems related to prescription trends and the flow of desired behaviour or orientation (Rokeach 1972).

However, in general, employers, especially those employing vocational graduates were dissatisfied by the graduates' personal qualities or employability traits (Bakar & Hanafi 2007). Research has also shown that employers indicate that Malaysian graduates, especially vocational and technical graduates though well trained in their fields of specialization lack, however, the soft-skills needed by the industries (Mustapha 1999; 2002). Therefore, the new form of VET approach that focuses more on industrial participation in apprentice training will not only cope with the increasing complexity and rapid changes in technology, but also focus on the social skills required as part of the training. As a direct consequence, the NDTS curriculum has placed social skills within its training system.

2 Conceptual framework

To further elaborate on the need of social skills and social values in the workplace, the researchers adopted the Secretary's Commission on Achieving Necessary Skills (SCANS) for a framework in this study. The SCANS was appointed by the Secretary of Labor in the USA to determine the required skills their young people required to succeed in the world of work. The Commission's fundamental purpose was to encourage a high-performance economy characterized by high-skilled and high-wage employment. The know-how identified by SCANS is made up of five competencies and a three-part foundation of skills and personal qualities fundamental to solid job performance. These include:

COMPETENCIES – effective workers can productively use:

- Resources – allocating time, money, materials, space, and staff;
- Interpersonal Skills – working in teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;
- Information – acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;
- Systems – understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;
- Technology – selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

THE FOUNDATION - competence requires:

- Basic skills – reading, writing, arithmetic and mathematics, speaking, and listening;
- Thinking skills – thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning;
- Personal qualities – individual responsibility, self-esteem, sociability, self-management, and integrity.

The SCANS model identifies five competencies in conjunction with a three-part foundation of skills and personal qualities, crucial to job performance today. The SCANS report gave insight into the skills required of employees in the workforce. Social skills or generic skills are identified by different terms in different countries: in the UK as "core skills", "key skills", "common skills"; in New Zealand as "key competencies" or "essential skills"; in Australia as "key competencies", "employability skills", "generic skills"; in the USA as "basic skills", "necessary skills", "employability skills" in France as "transferable skills"; in Germany as "key qualifications" (see NCVER 2003; ACER 2008). For this study, the researchers use "social skills" as the term has been used in the National Dual Training System (NDTS) curriculum since 2005 in Malaysia. For the purpose of this study, graduates of the National Dual Training System (NDTS) programme were assessed according to what their employer's believe was important and what they were able to contribute, in the way of social skills, to the workplace.

Public technical and vocational education and training (TVET) in Malaysia has traditionally been undertaken by a number of public agencies. Ideally, it should be harmonized and standardized under one agency, namely the Department of Skills Development (DSD). TVET curriculum must meet the minimum standards required and should contain a proportion of general skills dealing with literacy, numeracy and languages. Vocational skills are also critical in building an individual's skills set and capacity to adapt to changing circumstances in the workplace. Further, to enhance standardization and recognition of TEVT certification, the Malaysian Skills Certificate, famously known as *Sijil Kemahiran Malaysia (SKM)* has been adopted as the national certification for TEVT. The Malaysian Skills Certificate could be obtained through three (3) ways: (a) via a recognized training institution, (b) training programmes at accredited centres in the fields endorsed by DSD, and (c) industry-oriented training methods used in the National Dual Training System carried out by training institutes and industry.

The National Dual Training System (NDTS) is a government initiative to produce skilled workers in which training institutes and private industries participate together in training of apprentices. The NDTS follows an approach proven to be extremely effective in Germany and several developed countries. This training strategy creates a constant supply of skilled workers to cope with the demands of the manufacturing and service sectors. The effectiveness of this system in contributing toward the development of the country as has been experienced in Germany, Austria and Switzerland, inspired other countries such as Thailand, Philippines and some Latin American countries to adopt this training method and strengthen their training delivery system (Raja Zaharaton 2003).

NDTS has provided a new outlook on the skills training scenario in this country since 2005. "Dual" in the NDTS involves training conducted in two learning situations: the actual workplace and training institute. Practical training is conducted in the workplace, and consists of 70-80percent of the entire training period, the other 20-30percent of the training, consisting of basic skills and theory is taught at the training centre. The delivery method of NDTS is divided into two systems: a day-release system (1-2 days a week of theory and basic skills at the training centre and 4-5 days a week of practical training in the company) and a block-release system (1-2 months of theory and basic skills at the training centre and 4-5 months of practical training at the company).

In the Tenth Malaysia Plan (2011-2015), RM150 million will be set aside to train 20,000 school-leavers under the NDTS. The NDTS aims to expand the current curricula and provide specialized training to coaches to cater for the needs of school leavers. The NDTS emphasizes on the direct involvement of industry in training, and workplace training is strongly encouraged as part of TEVT curriculum, as it provides a strong learning environment. Workplaces provide a strong learning environment as they offer real on-the-job experience. This makes it easier to acquire both the hard and soft skills required for improved employability. The employers also learn about the performance of trainees and apprentices and can assess them as potential recruits placing them in a far better position in making recruitment decisions.

Thus, it is clear that the NDTS' main focus is to produce k-workers competent in one or two technical area(s) (e.g. auto mechatronics or tool-making), in human and social competence (social-skills and social values) as well as in learning methodology (learning how to learn). The role of vocational education and training in the transitional economies has been debated and it is important to understand how the TEVT makes an impact on economies, particularly in the labour markets. The Asian Development Bank (ADB) (2009) reported that curriculum reform is one of TEVT's challenges. The transformation created a need for curriculum modernization included a broadening of content of TVET programmes for youth by: (a) increasing the types of technical skills that the trainees should develop in preparation for a larger spectrum of occupations, (b) placing importance on transferable skills that can be applied in different situations, and (c) developing core skills and competences to respond to the requirements of the changing workplace and increasingly flexible (or uncertain) labour markets, such as entrepreneurial skills that enable young people to cope with uncertainty and manage their careers and learning-to-learn competences that provide the foundations for life-long-learning.

The NDTS program uses the NDTS curriculum (formerly known as National Occupational Core Curriculum), developed by experts in a particular training occupation. This curriculum is developed based on industry need analysis with due attention given to government policies in national development programmes, the Industrial Master Plan and the needs and analysis of present and future labour markets. The NDTS curriculum consists of Training Occupation, Occupational Profile, Occupational Core Work Processes, Core Competencies, Training Content Outline, and Learn and Work Assignment (LWA). Each LWA is designed based on each core work process and consists of the activities carried out by a skilled worker when performing an assignment where he/she must meeting the learning objectives. It is in the LWAs, that social skills and social values are planned, integrated and taught (either directly or indirectly) or inculcated through technical assignments to fulfil each core work process (Rahim et. al, 2008). The teaching of social skills and social values (non-cognitive skills), either through an explicit curriculum or through integration in technical assignments and laboratory work, allows apprentices to conform to the performance norms and expectations of a profession (Rahim & Khadijah 2009).

3 Problem statement

Most employers seek future workers who possess technical skills to meet the specific position offered. However, aside from technical skills, social or generic skills are also an important recruitment factor. The question of how to develop human capabilities to meet the current demands and future needs of organizations has become an important issue at national, organizational and individual levels. Mustapha and Greenan (2002) reported that educators and employers indicated that vocational graduates possessed adequate technical skills. However, both groups were less satisfied regarding the motivation, communication, interpersonal, critical thinking, problem solving, and entrepreneurial skills of the vocational graduates. TEVT has become a mainstream education option in many developed countries. Many high-

income countries adopt a dual-pathway model of education that allows significant flexibility and mobility between the academic and technical or vocational streams, with equivalent career prospects. Accordingly, the Malaysian government has introduced a new training system influenced by the dual training system in Germany to form a new training initiative in Malaysia, which contains the precise means to iron out the discrepancy between the graduates' ability and the needs of the industry.

The National Dual Training System (NDTS), launched by the Ministry of Human Resources in 2005, is expected to provide the trainees with the means to face "the real world" by directly involving in the training competencies required by industry. The most distinguishing feature of NDTS compared to other skill training programmes is the requirement for coaches and trainers to infuse or integrate social skills and social values explicitly in the conduct of teaching or the facilitating of technical content (Rahim et al. 2008). The NDTS program uses NDTS curriculum developed by the Department of Skills Development (DSD) together with experts from industry and training instructors from accredited centres for specific training occupations/job titles. The NDTS curriculum consists of two sections as reference at a company and training institute, and the contents are Training Occupation (TO), Occupational Profile, Occupational Core Work Process (OCWP), Core Competencies, Training Content Outline, and Learn and Work Assignment (LWA). Within the LWA, social skills and social values are planned, integrated and taught either directly or indirectly via technical assignments for the fulfilling of each core work process.

Training of Trainers (ToT) program in NDTS was designed for trainers of vocational institutes and coaches of industries to equip them with core social skills and social values they can integrate in their teaching. Nevertheless, the question whether the integration of social skills and social values in NDTS curriculum can be considered successful, remained unanswered. As a result, this study was designed to explore employers' perspectives regarding the effectiveness of social skills and social values integration in NDTS curriculum based on their observation and experience while working together with their NDTS graduated employees.

4 Purpose of the study

The purpose of this study was to determine employers' perception of social skills and social values among National Dual Training System (NDTS) graduates. In this study, the employers in the automotive sector were those employing workers that had obtained their Malaysian Skills Certificate (SKM) via a NDTS programme. The study also analyzed the employers' perception of the NDTS graduates' level of competence in performing the social skills. The findings are expected to be used in improving NDTS curriculum in terms of content or execution. In detail, the study objectives were:

a) To identify employers' perception of the importance of social skills and social values compared to technical competency in the automotive industry in Malaysia.

b) To identify employers' perception of the most and least important of the social skills identified in the common social skills framework required by the automotive industry in Malaysia.

c) To assess employers' perception of the social skills and social values possessed by their NDTS apprentices.

d) To determine employers' perception of the role of dual system training organization (institutes and workplace) in preparing the NDTS apprentices with the social skills and social values.

Based on the objectives of the study, the research questions were formulated as follows:

1. How do employers perceive the importance of social skills and social values compared to technical competency for the automotive industry in Malaysia?
2. Which of the social skills identified in the common social skills framework do employers perceive as the most and least important for the automotive industry in Malaysia?
3. How do employers in the automotive industry assess the social skills and social values possessed by their NDTS apprentices?
4. How do employers perceive the role of dual system training organization (institutes and workplace) in preparing the NDTS apprentices with the social skills and social values?

5 Research design

The cross-sectional survey method was used in collecting the data and the questionnaire was developed based on the theoretical framework. The data was collected from the respondents and included managers, supervisors or personnel involved in supervising the apprentices. Data was collected from the end of March 2011 to mid-July 2011. A list of companies involved in the implementation of National Dual Training System (NDTS) was obtained from the Department of Skills Development, Ministry of Human Resources. The companies are mainly medium and small-sized automotive industries as well as a few large companies. The core business of the automotive companies involved in this study included automobile manufacturing, automobile dealers and automobile service. Small-sized companies are defined as having 1- 100 workers, medium-sized 101 – 500 workers; and large-sized employ more than 500 workers. The researchers contacted eighty (80) automotive companies but only twenty (20) companies were willing to participate in the study.

A survey instrument was designed to gather primary data from the employers on their perceptions of the effectiveness of social skills and social values integration in the NDTS curriculum. The researchers developed questions based on the theoretical framework to address the research questions identified for the study. An introductory section was added to the questionnaire describing the purpose and focus of the survey. The questionnaire was designed

using a combination of quantitative and qualitative questions and comprised five distinct sections.

The first Section, "Section A: Social Competencies", includes a set of twenty-six social skills grouped under seven clusters. Each social skill was defined based on SCANS workplace know-how items. In addition, the researchers modified and elaborated the social skills items based on the list of social skills identified by the Department of Skills Development (DSD). The respondents were asked to rate each social skill according to two criteria: (1) how important do they think the corresponding social skills are to the NDTS apprentices; (2) how satisfied are they with the level of social competence among the NDTS apprentices. The respondents were asked to rate the importance of the skills on a four-point Likert-type rating scale. The rating scale is: Major Importance [3], Moderate Importance [2], Minor Importance [1], and No importance [0].

The second section, "Section B: Technical Competencies" includes a set of fourteen technical skills grouped under four clusters. The respondents were also asked to rate each skill according to two criteria: (1) how important do they think the corresponding technical skills are to the NDTS apprentices; and (2) how satisfied are they with the level of technical competence among their NDTS apprentices. The same scale as in Section A was used. The third section consists of eight main questions, asking the targeted respondents to indicate their perception regarding the role of National Dual Training System programme in equipping the apprentices with social and technical skills. A four-point Likert-type scale was also used. The rating scale is: Strongly Agree [3], Agree [2], Disagree [1], and Strongly Disagree [0]. The resulting mean values are interpreted according to table 1.

Table 1: **Interpretations of the means**

The range of means	Interpretation of the means
2.26 – 3.00	Major Importance / Strongly Agree
1.51 – 2.25	Moderate Importance / Agree
0.76 – 1.50	Minor Importance / Disagree
0.00 – 0.75	No Importance / Strongly Disagree

The respondents were also asked if they were familiar with the NDTS programme and if not, did they have any intention to run the NDTS scheme in future. The fourth section was designed to obtain specific information on the training or skills development programmes that had been conducted in the respondent's organization. These included how often training was given to the NDTS apprentices, and the types of social skills training that had been conducted. This section also attempted to obtain opinions from the employers regarding the social skills important to the NDTS apprentices; the barriers to integrating social skills in their company; and their suggestions on how to integrate social skills effectively in their company. The fifth section is the demographic profile of the respondents and includes: (1) age group, (2) gender, (3) level of education, (4) present position, (5) years of management experience, (6) size of

company, (7) type of company ownership, (8) number of NDTS apprentices in their company, and (9) period of NDTS apprentices with the company.

Pilot test

The survey instrument was pilot-tested on five employers of automotive companies representing the targeted respondents for the study. The pilot test was conducted in early March 2011. Feedback from the participants was collected and necessary amendments were made. The main comment provided by the participants, especially Malay automobile service workshop owners was their weaknesses to understand survey questions in English. Based on the feedback received in the pilot study, the researcher has made the bilingual survey questions (English and Malay language) for the real study.

6 Findings

This section discusses the demographic information and the data obtained to answer the four research questions. The study sought to assess employers' perceptions regarding the importance of social skills and their NDTS apprentices' competence at performing those skills. Twenty employers completed the questionnaires. The survey instrument was tested for reliability using Cronbach Alpha. The reliability coefficient alpha was found at 0.871 for survey question from Section A to Section C. Thus, the survey instrument was considered to possess adequate internal consistency reliability. This section presents the findings.

Demographic information

Of the twenty companies, eight were from the state of Johor (40%), six from the state of Negeri Sembilan (30%), two from the state of Melaka (10%), two from the state of Terengganu (10%), one from the state of Perak (5.0%) and the state of Sarawak (5.0%). Of the twenty companies, nine were small-scale companies (45%), nine were medium-scale companies (45%), and the other two were large-scale companies (5.0%). Of the twenty companies, eighteen were locally owned companies (90%), one was multi-national corporation company (5%), and the other one was considered other category (5.0%).

The majority of the companies (70%) have NDTS apprentices who trained there for less than three years. Only six companies (30%) have run the NDTS programme for three years or more. Each company has assigned at least one of its employees to serve as a coach. This employee supervised and managed the NDTS programme in the organization. The majority of the coaches (80%) had attended special course for coach/instructor which was conducted by the Department of Skill Development. Most of the companies (90%) have 1-5 NDTS apprentices while only 10% of the companies have more than five NDTS apprentices training in their companies. Regarding the length of training, only 15% of the companies have NDTS apprentices trained for 3 years or more. About one-thirds (30%) of the companies have NDTS apprentices for 2-6 months, 30% for 7-12 months, and 20% for 1-2 years. Table 2 shows the demographic information.

Table 2: **Demographic information**

Construct	Sub-construct	Frequency (f)	Percentage (%)
Location of the companies:			
	Johor	8	40%
	Negeri Sembilan	6	30%
	Melaka	2	10%
	Terengganu	2	10%
	Perak	1	5%
	Sarawak	1	5%
Number of years run NDTS programme:			
	1 year	7	35%
	2 years	7	35%
	3 years or more	6	30%
Coach had attended special training:			
	Yes	16	80%
	No	4	
Number of NDTS apprentices in the company:			
	1 - 5	18	90%
	More than 6	2	10%
Length of training in the company (NDTS apprentices):			
	1 – 6 months	6	30%
	7- 12 months	6	30%
	1 – 3 years	4	20%
	More than 3 years	3	15%
	No answer	1	5%

Analysis of research questions

Research question 1: How do employers perceive the importance of social skills and social values compared to technical competency for the automotive industry in Malaysia?

Question 1 sought to assess employers' perceptions of the importance of social skills compared to technical skills in the automotive industry. The average mean for social skills items and technical skills items were compared. Social skills consist of twenty-six items clustered into seven groups featuring basic skills; communication skills; interpersonal skills; teamwork; leadership; personal qualities; and thinking skills. On the other hand, technical skills consist of fourteen items clustered into four groups, featuring resources; information; systems; and technology. The mean for social skills items is 2.73 and the mean for technical skills items is 2.72. This shows that respondents strongly agreed that both social and technical skills are very important, and that there is no significant difference between the employers' perceptions of the importance of social skills and the employers' perceptions of the importance of technical skills in the automotive industry in Malaysia.

Research question 2: Which of the social skills identified in the common social skills framework do employers perceive as the most and least important for the automotive industry in Malaysia?

The 26 social skills were ranked in order of importance based on their mean importance. Four social skill items were found to possess a mean importance of 2.90 or higher. The four skills were "Interpersonal Skills - Serves clients/customers" (M = 3.00), "Personal Qualities – Integrity/Honesty" (M = 2.95), "Basic Skills - Reading" (M= 2.90), and "Teamwork – Participates as a member of a team" (M = 2.90). In addition, four social skill items had means of 2.50 or lower. These items consisted of "Communication Skills - Speaking" (M = 2.50), "Leadership – Ability to motivate others" (M = 2.50), "Thinking Skills – Decision making" (M = 2.50), and "Thinking Skills – Seeing things in the mind's eye" (M = 2.40).

Research question 3: How do automotive industry employers assess the social skills and social values possessed by the NDTS apprentices?

The 26 social skills were clustered and ranked based on their average mean of importance. On the cluster level, the data analysis indicated that interpersonal skills are the most important skill cluster (M=2.83), followed by personal qualities (M=2.81), then the teamwork cluster (M=2.80), basic skills cluster (M=2.73), communication skills cluster (M=2.68), thinking skills cluster (M=2.67), and, least important, the leadership cluster (M=2.56).

Research question 4: How do employers perceive the role of the dual system training organization (institutes and workplace) in preparing apprentices with social skills and social values?

Research question 4 asked about the role training organization (institutes and workplace) should play in equipping the students with the required social skills and social values. The question received very high indication from the respondents that training organization (institutes and workplace) should play a role in equipping their students with the social skills and social values required in the labour market. All (100%) of the respondents agreed that the training institute should play a role in equipping the apprentices with social skills. In addition, most (95%) of the respondents agreed that workplace (during training) should play a role in equipping apprentices with social skills and 5% disagreed with the statement. Similarly, a majority (90%) of the respondents agreed that social skills should be integrated into the NDTS curriculum and not to be taught separately. However, 10% of the respondents disagreed with the integration of social skills into NDTS curriculum.

7 Summary, discussion and recommendations

This section summarizes the findings of the study. The study was initiated to review the effectiveness of the integration of social skills and social values in the National Dual Training System (NDTS) curriculum based on the perception of automotive employers that train NDTS apprentices. For the purpose of the study, four research questions were addressed. The finding of the first research question clearly indicated that employers perceive social skills as equally

important to technical skills in the automotive industry in Malaysia. In fact, the mean of employers' perception of the importance of social skills were slightly higher than employers' perception of the importance of technical skills. The finding of the second research question indicated that on the cluster level, the data indicated that interpersonal skills are the most important skill cluster and the least important is the leadership cluster. In addition, analysis on the individual items shows that serving clients/customers is the most important social skill and seeing things in the mind's eye is the least important social skill needed by employers.

The finding of the third research question indicated that on the cluster level, the data indicated that NDTS apprentices were most competent in teamwork and least competent in thinking skills. Analysis on the individual items indicated NDTS apprentices were good at working in a team compared to doing things that required "thinking" - such as problem-solving. The findings of the fourth research question indicated that all of the respondents agreed that training institutes should play a significant role in equipping the apprentices with social skills. This result supports the finding of the study conducted by Rania (2007) asserting that universities (institutes) must play a role in preparing their students for the workplace through developing their generic soft skills. Most of the respondents also agreed that social skills should be integrated into NDTS curriculum and not be taught separately.

Overall, the findings show that on the cluster level, teamwork and personal qualities were ranked in the top three, both in the employers' perception of the importance of social skills and the employers' perception of the NDTS apprentices' level of competency in social skills. These findings are in line with the results of a study conducted by Truijen et al. (2013). Based on intensive interviews of vocational managers in the Netherlands, Truijen et al. (2013) found the importance of team work and group efficacy to achieve organizational goals. However, the present study found that thinking and leadership skills were not rated highly by the employers. It may be due to the fact that the majority of the apprentices are new to the training and expect to follow instructions and do routine work based on the Standard Operating Procedures. As a result not a great deal of "thinking" or "leading" can be expected from the apprentices.

The present findings also indicated that the most significant gaps between NDTS apprentices and employer's expectations were interpersonal skills. This suggests that NDTS apprentices should focus more on their interpersonal skills development. A plethora of empirical studies on employability skills have suggested the need for technical workers to enhance their interpersonal competencies (Bakar & Hanafi 2007; Carnevale et al. 1990; Custer & Claiborne 1995; Husin & Mustapha 2009; Mustapha 1999; Passmore 1994; Truijen et al. 2013).

Apprentices can use the findings of this research to enhance their social skills, based on employers' expectations, to be competitive in the labour market. Training providers could use the research findings to put emphasis on social skills for their apprentices. Most of the respondents agreed that social skills should be integrated into NDTS curriculum and not to be taught separately. By identifying the most important social skills needed by selective industry (in this case – automotive), curriculum development should emphasize the required skills in the curriculum. Nevertheless, some limitations emerged in the present study. Firstly, the

sample was relatively small and did not cover all the states in Malaysia. Secondly, this study only focused on the automotive industry in Malaysia. Further research is suggested to incorporate a wider range of categories of respondents involved in NDTS programmes and a focus on different types of industries such as construction, information technology, manufacturing and others. Nonetheless, despite the weaknesses mentioned in this research, the present research can be seen as a preliminary investigation of the opportunity for improving or strengthening the NDTS curriculum in terms of curriculum development or implementation.

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