

台灣地區國際貿易從業人員職能需求分析

EMPLOYEE COMPETENCIES OF TAIWANESE INTERNATIONAL TRADE

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摘要

諸多商業環境的改變，迫使台灣的進出口從業人員面對嚴峻的挑戰，新局面要求進出口從業人員具備新的知識、技能及工作態度，以便能成功地因應商業環境的多元化與複雜化。本研究的主要目的在利用量化研究的問卷調查法，以揭示雇主對國貿職能的重要性分析；本研究採用的問卷乃研究者依據相關國內外文獻所自行開發；包括一般職能調查及專業職能調查兩大部分。根據 420 位進出口業雇主的意見，本文有以下的發現：

1. 個人特質是最被看重的一般職能，其次為執行技能，再者為思考技能，最後是洞悉力。
2. 最重要的前三項專業職能構面為國際金融與行銷、進出口實務、及溝通技能。
3. 進出口業雇主對一般職能的看重超過對專業職能的重視。
4. 進出口業雇主重視的是員工所擁有的工作能力，而不是他們所持有的證照。

5. 就雇主的人口資料而言，對國貿職能的重要性看法並沒有相當大的差異。
6. 一般職能與專業職能存在互補關係，一項職能的重要程度可用於預測另一項職能的重要程度。

關鍵字：職能、國際貿易、雇主、台灣

ABSTRACT

Dozens of severe changes have forced international trade practitioners to face overwhelming challenges which require them to acquire a new set of knowledge, skills, and attitudes to face the diversity and complication of the global business environment successfully. Therefore, it is important to reveal employers' perceptions of the importance of international trade competencies. The main purpose of this quantitative study was to use survey investigation to understand international trade competencies perceived as important by Taiwanese international trade employers. The survey instrument of this study consisting of the generic competency survey and the professional competency survey were derived from Hsieh's (2009) "The International Trade Survey Instruments," which was based on Taiwanese literature in the business field. The study revealed several findings based on 420 Taiwanese employers' perceptions:

1. The factor of Personal Qualities was the most important generic competency factor, followed by Executive skills, Thinking Skills, then Insight.
2. Employers rated top three professional competency components in order as International Finance and Marketing, Importing/Exporting Practices and International Communication Skills.
3. Employers placed greater importance on generic competencies than professional competencies.
4. Employers were concerned about what competencies employees had rather than what certificates they obtained.
5. Generally speaking, employers' perceptions of the importance of

international trade competencies were highly consistent in statistics.

6. The complementary relationship existing between generic and professional competencies may be used to predict the importance of one by that of another.

Keywords: Competency, International Trade, Employer, Taiwan

1. Introduction

Taiwan is a small island country with few natural resources and a limited domestic market; therefore, Taiwan's economic development has historically depended heavily on the expansion of international trade. With the trends of globalization, multinational enterprises (MNEs) have made use of powerful information technology to integrate all aspects of the business process, beginning with preproduction and ending with post-distribution and customer services. As a result, the importance of the role of the traditional trader as partisan intermediary is diminishing as the customers are able to deal directly with manufacturers. According to the statistics of the Bureau of Foreign Trade (2008), over 233,000 importers and exporters were qualified by the government at the end of 2007. Of this number, 53.26% of them did not have any trade records. In addition, since 1979, China has become one of the greatest factories of the world because of its ability to provide costs of land and labor at reducing rates. Consequently, Taiwan has lost its competitive advantage of low-cost manufacturing. In response, Taiwanese enterprises have look for Chinese suppliers or directly invested factories in producing commodities in China, then ship them from China to the target markets. Given the above statements, international trade operations in Taiwan have become increasingly complex and challenging.

As comparative advantage theory argue that competitive strength is driven by the ability to maximize profit at a lower cost. Since there is much uncertainty over comparative advantages in today's world economy (Kogut, 1999), human resources management has been viewed as a key strategy to low the cost of human capital and

improve an organization's economic growth (Ibrahimkhan, 2006). Current trends in human resource management place emphasis on the development and application of the term competency, particularly the important role it plays in improving job performance, which in turn achieves heightened organizational competitiveness (Velde, 2001; Cardy & Selvarajan, 2006). Facing new challenges, it is necessary to reevaluate what set of knowledge, skills, and attitudes that an international trade professional needs in order to succeed in the rapidly changing global economy. Increasing the competitiveness of an enterprise's workforce represents increasing its opportunities to be successful. Taiwan's national economy will continue to prosper as long as its enterprises continue to maintain their competitiveness in the global market.

To reevaluate the content of international trade competencies, this quantitative study used survey investigation to reveal employers' perceptions of the importance of international trade competencies, including generic and professional ones. The significance of the study resided in its potential to provide objective information that may lead employers, employees, and educators to benefit from a better understanding of international trade competencies needed by today's workplace. For employers and managers, this investigation endeavored to help them begin building standards for employee competencies which could be used to select employees, conduct performance reviews, and determine the training programs. This study also aimed to increase current and future employees' awareness of international trade competencies. Such awareness would enable employees to prepare themselves with the appropriate knowledge, skills, and attitudes to make them globally competitive. For educators, they would be able to incorporate real-world information into their teaching materials, courses, and pedagogies, in order to equip graduates with the skills to succeed in the international trade field. Based on the purpose of this study, three of major research questions would be answered:

1. How are the generic and professional international trade competencies in entry-level employees' daily tasks ranked by employers who participate in the hiring or the performance assessment process?
2. What are the effects of employers' demographic factors on their responses to the question about rating the importance of international trade

competencies?

3. What is the relationship between generic and professional international trade competencies?

2. Review of the Literature

Early in the 1970s, Dr. David McClelland proposed the idea of competency as a term used to challenge traditional criteria of assessment which had emphasized intelligence evaluation in the higher education system (McClelland, 1973). His theme provided a conceptual framework, leading to many subsequent studies in other fields such as teacher education, vocational education, and human resource management (Spencer & Spencer, 1993).

2.1 Definition of competency

A competency has been defined in the literature from various perspectives. The American Heritage Dictionary (2000) provides a general description as “the state or quality of being properly or well qualified”. In business cases, scholars have continued to explain the meaning of a competency. For example, Burgoyne (1993) employed a functional perspective to define a competency as how the goals of organizations were best achieved by improving members’ performance. In the human resource field, specialists agreed that “A competency is an underlying characteristic of a person which results in effective and/or superior performance on the job” (Klemp, 1980). Spencer and Spencer (1993) had similar definition as “an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation”. In his following statement, he explained “underlying characteristic is a fairly deep and enduring part of a person’s personality and cause or predict behavior....” and “criterion-referenced means the competency actually predicts who does something well or poorly, as measured on a specific criterion or standard...Examples of criteria are the dollar of sales for salespeople....” Human resource specialists viewed a set of competencies as a tool to serve as a common language throughout the entire organization to

consistently plan personnel, conduct performance reviews, and determine the training program (Kravetz, 2008).

Hoffmann (1999) analyzed past literature and summarized three key points in defining a competency: (a) underlying qualification and attributes of a person, (b) observable behaviors, and (c) standard of individual performance outcomes. The most general and detailed definition was proposed by Parry. Parry's definition has been accepted by numerous scholars (Lucia & Lepsinger, 1999):

A competency is a cluster of related knowledge, skills, and attitudes that affects a major part of one's job (a role or responsibility), that correlates with performance on the job, that can be measure against well-accepted standards, and that can be improved via training and development.

2.2 Competency models

In reviewing literature, various competency models were proposed in terms of the perspectives in different fields. Also, many countries have developed their own competency models from different needs (Tien, Ven, & Chou, 2003). Three competency models that relate competency to performance were introduced in the following paragraphs because parts of their concepts, definitions and components formed frames of reference of this study.

(1) The Iceberg Model

Spencer and Spencer (1993) proposed the "Iceberg Model" to divide underlying characteristics, which caused behaviors and performance in a job, into five categories: motives, traits, self-concept, knowledge, skills. According to the iceberg model, motives and traits were more likely to be hidden at the base of the iceberg since they were the inner and deeper part of an individual's personality. They were more difficult to develop and reform through school education and job training. On the other hand, knowledge and skills were visible and appear at the top of the iceberg. They were relatively easily developed and improved through education and job training. The authors grouped self-concept into hidden competencies, but indicated that it could be changed gradually to a certain degree through constant

education, consultation, and training.

(2) SCANS Skills and Competencies

In 1990, the Secretary's Commission on Achieving Necessary Skills (SCANS) (1991) appointed by the U.S. Department of Labor identified the skills that entry-level employees need to be successful in the workplace. The major goal of the committee was to pursue a high-performance economy by encouraging schools to assist students in developing special qualifications and personal attributes to accomplish desired results on a job. Even though those competencies were proposed in the 1990s, SCANS continues to be seen as a valuable source of information for educators involved in education reform and practitioners in human resource development (U.S. Department of Labor Employment & Training Administration, 2008). The SCANS Skills and Competencies institution is comprised of a three-part foundation and five competencies. Basic skills, thinking skills, and personal qualities are included in the three-part foundation. The five competencies consist of the abilities to utilize resources, work with others, manage information, identify interrelationship, and work with a variety of technologies.

(3) Hard and soft skills

Hard skills often refer to the technical level of performance and usually include professional knowledge and task-oriented skills (Ashbaugh, 2003). Knowledge, which is information about a certain subject, is typically possessed by entry-level hires. Task-oriented skills are a basic prerequisite for a job in which the individual physically interacts with technology during the production of a material and tangible products. Components of hard skills include formula use, tool use, measuring, fitness, and so on (Costin, 2002). Hard skills require an intellectual thought process which factors in a person's intelligence quotient (IQ) (Rainsbury, Hodges, Burchell, & Lay, 2002). On the other hand, soft skills are those skills associated with the behavior necessary for successful interpersonal interaction. Soft skills often include the usage of ingenuity, creativity, intuition, problem solving, and communication skills. Daniel Goleman popularized the emotional quotient (EQ), asserting that soft skills were mainly perceptual or attitudinal and reactionary (as cited by Kemper, 1999).

In contrast with the idea of the iceberg model, hard skills tended to refer to visible competencies, and soft skills were similar to hidden ones in the iceberg model. As there was an overlapping between hard and soft skills, it was difficult to precisely categorize and itemize visible and hidden competencies because of a lack of exact definitions in the literature. Most researchers agreed that knowledge and skills comprised visible competency (Brown, 1993; Byham & Moyer, 1996; Hager & Gonczi, 1996; Li, 2001; Parry, 1998; Raymond, 1999; Quinn, Faerman, Thompson, & McGrath, 1990; Spencer & Spencer, 1993). Brown (1993) also included creativity in a visible competency. In addition, behavior was perceived as a visible competency by Byham & Moyer (1996). Derouen and Kleiner (1994), Hong (1997), and Li (2001) all agreed that interpersonal relationships were a form of visible competency. On the other hand, perceptions of content about hidden competencies widely differed among scholars. Attitude could be the most common component (Brown, 1993; Hager & Gonczi, 1996; Hong, 1997; Li, 2001; Parry, 1998; Raymond, 1999). Hong (1997), Parry (1998), and Raymond (1999) added value systems into the category of hidden competency. Both Spencer and Spencer (1993) as well as Derouen and Kleiner (1994) perceived concept as a hidden competency. Motives were classified as a hidden competency by Spencer and Spencer (1993) as well as Byham and Moyer (1996).

3. Methodology

3.1 Instrumentation

To discuss the improvement of current and future employees' employability, this study did not intend to discuss hidden competencies such as motives and physical traits. They were considered by Spencer and Spencer (1993) in their "Iceberg Model" as very difficult to change or reform through school education and job training. Further, comparing the iceberg model and soft/hard skills model, they express very similar ideas: the visible competencies are overlapping the hard skills; they are included to the professional competencies of the survey instrument in this study. On the other hand, the hidden competencies are similar to the soft skills. Of these, since self-concept can still be changed by education training, this study labels

it as generic competencies. The international Trade Competency Survey (Hsieh, 2009) was employed to investigate employees' perceptions. The generic competency part of Hsieh's survey was developed based on Taiwanese studies on the analyses of the importance of competency in the business fields. The professional competency part was compiled based on Taiwanese literature in the business field and the "International Business Competencies in Taiwan" instrument (Wang, 2000). Both Hsieh's surveys were reviewed by 12 Taiwanese international trade experts. Questionnaires with a 5-point Likert-type rating scale were utilized in this study.

3.2 Definitions of Terms

The following definitions of terms are presented below with the purpose of describing the context of this study and to avoid confusion over terms that have multiple meanings: (a) Generic competencies are related to cognitive competencies in this study, including self-concept and some of the soft skills, which tend to be more generally needed almost over all professional fields. The major distinctiveness is that they are more difficult to improve through education or job training. They were grouped into four components: insight, personal qualities, interpersonal relationships, and executive skills. (b) Professional competencies refer to hard skills, including knowledge and task-oriented skills, specific to an international trade job. In this case, knowledge means information about a certain subject the employee has retained, and task-oriented skills are the ability to accomplish a mental or physical task.

3.3 Data Collection

In Taiwan, an organization is called as an importer or exporter after registering for the right of importing or exporting readily. Today, the most complete directory of importers and exporters which were published by official units could be "Leading Taiwan Exporters 2008-2009" which was published by the Taiwan External Trade Development Council (TAITRA). The directory CD collected 43,161 companies comprising 18,678 importers and 24,483 exporters whose yearly trade volumes were over \$200 thousand. Gay and Airasian (2003) provided a guideline to determine a sample size if the population is large: "beyond a certain point (at about 5,000 units

or more), the population size is almost irrelevant, and a sample size of 400 should be adequate". Accordingly, the sample size of this study should include 400 obtained employer responses. Gao found in 2001 that the average return rate of the Taiwanese mailed survey was 10-15%, which was considerably less than those of western countries (as cited by Lin, 2004). Thus, the researcher increased by 10 times to compensate for responses that the researcher would be unable to receive. In other word, the researcher delivered e-mails that attach the survey website addresses to 4,000 employers. This study used systematic sampling that was a variation of the simple random sampling method (Creswell, 2005).

4. Data Analysis and Results

4.1 Validity and Reliability

A total of 4,000 web-based surveys were distributed to Taiwanese importers and exporters through e-mails from the middle of July to the end of August in 2008. 649 employers ever clicked the survey website. Of these, 445 surveys were complete after excluding those for which the participants did not fill all questions in at least one page. The researcher also identified 25 unusable surveys in which participants nearly offered the same answered throughout the questionnaire. Finally, 420 surveys were valid. The return rate was 16.22%. With the exclusion of invalid surveys, the effective return rate was 10.5%.

In the professional competency survey instrument, factors were categorized by the criteria of specific knowledge and task-skills, which used to be symmetric to specific international trade courses. Hence, factor analysis was considered inappropriate for the professional competency survey instrument. Principal Components Factor Analysis (PCFA) was only conducted to establish the structure of the generic competency survey. If there are at least 300 cases for factor analysis, the result will be more reliable (Tabachnick & Fidell, 2007). The sample size of this study was 420; therefore, it was good to conduct PCFA. The result of KMO was .904, larger than the recommended value .6 (Kaiser, 1974). Kaiser (1974) considered

KMOs in the .90s as “meritorious.” In short, PCFA for the generic competency survey instrument was considered to be appropriate. Table 1 shows the reliability and validity effect of generic competency survey. Factor loadings ranged from .514 to .839, which all were greater than critical value of .3.

Cronbach’s alpha coefficients were utilized to test the degree of reliability in this study. The reliability tests of all components were great because all Cronbach’s alpha coefficients were larger than .7 (see in Table 2). Moreover, the corrected item-total coefficients of all items were above .3. The results indicated that all items were highly correlated with the total items in the same component. Above all, the reliability and validity of the scales were great with sample of this study.

4.2 Overall status of participants

The demographic information of participants is stated as follows. Male employers and female employers numbered 54.5% and 45.5% of total sample respectively. In terms of title of position, the greatest number of participants was in owner position (47.6%). Over half of participants had been an employer or a supervisor in international trade field for more than 10 year (53.3%). 57.4% of participants worked at traditional industry. Half of them (50%) were from a small-size company that had less than 10 international employees.

4.3 Ranking of importance of generic competencies

Table 3 shows the estimated mean and standard deviation scores for employers’ perceptions of the importance of generic competencies. The following four competencies ranked as very important, in order: were responsibility (4.79), enthusiasm (4.71), ability to learn (4.63), communication skills (4.56), teamwork (4.56), and problem solving (4.53). The 12 other competencies were all ranked as important.

In terms of factors, as shown in Table 4, employers rated four generic competency factors in the following sequence: Personal Qualities (4.56), Executive Skills (4.50), Thinking Skills (4.24), and Insight (4.22). The mean of four factors

Table 1 Reliability and Validity of the Generic Competency Survey

Factor	Items	Factor loading	Cumulative % of variation explained
Insight	Interpersonal understanding	0.816	37.676
	Relationship building	0.681	
	Customer service orientation	0.644	
	Planning skills	0.590	
Personal Qualities	Ability to learn	0.786	48.915
	Responsibility	0.766	
	Enthusiasm	0.761	
	Self-control	0.632	
	Self-confidence	0.519	
Thinking Skills	Initiative	0.498	56.267
	Decision making	0.839	
	Crisis management	0.835	
Executive Skills	Problem solving	0.813	61.560
	Leadership	0.616	
	Communication skills	0.830	
	Teamwork	0.695	
	Time management	0.520	
	Implementation	0.514	

Table 2 Cronbach's Alpha Coefficients of International Trade Competency Survey

Instrument	Factor	Cronbach's alpha
Generic Competency		0.900
	Insight	0.749
	Personal Qualities	0.831
	Thinking Skills	0.836
	Executive Skills	0.733
Professional Competency		0.831
	Awareness of the IT Environment	0.943
	Importing/Exporting Practices	0.894
	International Finance and Marketing	0.852
	International Communication Skills	0.724
	Cross-Cultural Intelligence	0.881

Table 3 Importance of Generic Competencies

Order in mean	Competency	<i>M</i>	<i>SD</i>
1	Responsibility	4.79	0.47
2	Enthusiasm	4.71	0.54
3	Ability to learn	4.63	0.54
4	Communication skill	4.56	0.54
5	Teamwork	4.56	0.57
6	Problem solving	4.53	0.64
7	Crisis management	4.47	0.70
8	Self-control	4.46	0.61
9	Customer service orientation	4.45	0.59
10	Implementation	4.45	0.61
11	Time management	4.44	0.58
12	Initiative	4.42	0.66
13	Self-confidence	4.36	0.62
14	Relationship building	4.32	0.63
15	Interpersonal understanding	4.16	0.65
16	Decision making	4.09	0.89
17	Planning skills	3.93	0.73
18	Leadership	3.86	0.87
Average		4.40	0.64

Table 4 Importance of Generic Competency Factors

Order in mean	Factor	<i>M</i>	<i>SD</i>
1	Personal Qualities	4.56	0.57
2	Executive Skills	4.50	0.57
3	Thinking Skills	4.24	0.78
4	Insight	4.22	0.65
Average		4.40	0.64

was 4.40, the degree of the importance of overall generic competency.

4.4 Ranking of importance of professional competencies

Table 5 shows the estimated mean and standard deviation scores for the top 10 professional competencies that employers ranked in order. Of these, only two items were identified as very important: communicating fluently with English and

identifying the content and characteristics of your company's products or services. The 32 other professional competencies were ranked as important except acquiring certificates of international trade skills which was reported as fair.

As shown in Table 6, in terms of components, employers rated five professional competency factors in order as International Finance and Marketing (4.13), Importing/Exporting Practices (4.07), International Communication Skills (4.02), Awareness of the International Trade Environment (3.94), and Cross-Cultural Intelligence (3.86). The mean of five factors was 4.02, the degree of the importance of overall professional competency, which was less than that of overall generic competency (4.40). In other words, employers stressed the importance of overall generic competency more than overall professional competency.

4.5 The effects of demographic variables

The assumption that the population from which the samples are taken is a normal distribution should be applied when comparing among groups (Pallant, 2007). After conducting tests of normality, most factors had normally distributed scores except Personal Quality and Thinking Skills; therefore, the research transformed those three variables into normal distributions with reflect and square root formula (Tabachnick & Fidell, 2007).

(1) Gender

Independent-samples t-tests were used to explore difference in the importance of competencies perceived by gender. Levene's tests were conducted to examine the equality of variance. Competencies that had a distinct difference between two groups were presented in Table 7. The differences of ranking in the importance of Insight and Thinking Skills between male and female employers were statistically significant at $p < .05$. The mean score of Insight for male employers ($M = 17.09$, $SD = 1.97$) was significantly higher than for female employers ($M = 16.62$, $SD = 1.90$). The mean score (in the form of reflection and square root) of Thinking Skills for males ($M = 1.84$, $SD = .67$) was significantly lower than for females ($M = 1.99$, $SD = .60$). After returning to the original scale, males gave significantly higher scores to Thinking Skills than did females. Insight and Thinking Skills were perceived more

Table 5 Importance of Top 10 Professional Competencies

Order	Competency	<i>M</i>	<i>SD</i>
1	Communicate fluently with English	4.60	0.53
2	Identify the content and characteristics of your company's products or services	4.57	0.57
3	Identify terms of trade (TOT)	4.44	0.62
4	Identify importing or exporting processes	4.39	0.61
5	Identify a variety of international payment tools	4.29	0.64
6	Make commonly used contract documents of IT	4.24	0.72
7	Identify IT policies that are related to your industry	4.23	0.68
8	Negotiate in the international business environment	4.22	0.72
9	Use word processors	4.19	0.68
10	Adopt distribution strategies when entering a new market	4.11	0.70

Table 6 Importance of Professional Competency Factors

Order in mean	Component of Profession Competencies	<i>M</i>	<i>SD</i>
1	International Finance and Marketing	4.13	0.69
2	Importing/Exporting Practices	4.07	0.71
3	International Communication Skills	4.02	0.69
4	Awareness of the International Trade Environment	3.94	0.74
5	Cross-Cultural Intelligence	3.86	0.71
Average		4.00	0.71

Table 7 Significant Difference in Importance of Competencies by Gender

Competency	Female (n= 191)		Male (n= 229)		Sig. of	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Levene's test	<i>t</i> (418)
Insight	16.60	1.90	17.08	2.00	0.345	-2.513*
Thinking Skills ¹	1.99	0.60	1.84	0.67	0.027	2.438*

Note. * $p < .05$. ¹Thinking Skills were transformed by reflect and square root.

highly by male employers than by female employers. With regard to all professional competencies and overall professional competency, no significant difference was found between female employers and male employers.

(2) Title of position

A series of one-way analysis of variance (ANOVA) was employed to assess differences in the importance of competency factors by different titles of position. The “other” subgroup, which consisted of positions such as financial manager, major assistant, marketing director, and shipping director, did not meet the requirement of ten percent of the total sample; hence, it was included with the HR director subgroup (in the initial questionnaire) as “other directors.” The Levene’s test was used to assess equality of variance. All factors showed that the assumption of equal variances was not violated. Tabachnick and Fidell (2007) asserted that the Scheffe method for post hoc comparison was the most conservative method when homogeneity of variances was assumed. Table 8 showed the means, standard deviations, Levene’s tests, F-values, and Scheffe post hoc comparisons of the competency items that had significant differences among groups, including Personal Qualities, Thinking Skills, and Awareness of the International Trade Environment.

Scheffe post hoc tests indicated, first, that the mean score (in the form of reflection and square root) of Personal Qualities for international trade directors ($M = 1.80$, $SD = .64$) was lower than for “other directors” ($M = 1.94$, $SD = .65$). After returning to original scale, the result showed that international trade directors assigned significantly higher scores on the importance of Personal Qualities than did “other directors.” Secondly, the mean score (in the form of reflection and square root) of Thinking Skills for ($M = 1.80$, $SD = .66$) was lower than for “other directors” ($M = 2.11$, $SD = .57$). In the measure of the original scale, the results indicated that owners perceived Thinking Skills to be of higher importance than did “other directors.” Thirdly, “other directors” provided significantly higher mean scores to Awareness of the International Trade Environment ($M = 24.55$, $SD = 3.06$) than did international trade directors ($M = 23.08$, $SD = 3.17$).

(3) Industry category

Several ANOVAs were conducted to examine differences in the importance of competency factors among industry categories. The Levene’s test was used to assess equality of variance. All factors showed that the assumption of equal variances was assumed. The statistics shown in Table 9 indicated that significant differences were found only in Thinking Skills. A Scheffe post hoc test showed that the mean score

Table 8 ANOVAs for Employers' Perceptions by Title of Position

Factor	1.Owner (n1 =135)		2. IT director (n2 =200)		3. Other (n3 =85)		Sig. of Levene's		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	test	<i>F</i> (2, 417)	Scheffe
PQ ¹	1.80	.64	1.73	.60	1.94	.65	.302	3.523*	2<3
TS ¹	1.80	.66	1.89	.65	2.11	.57	.053	6.063**	1<3
AE	23.87	3.28	23.08	3.17	24.55	3.06	.990	6.931***	2<3

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. ¹PQ and TS were transformed by reflection and square root.

Table 9 ANOVAs for Employers' Perceptions among Industry Categories

Factor	1. IT Company (n1 =121)		2. High-Tech (n2 =58)		3. Traditional (n3 =241)		Sig. of Levene's		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	test	<i>F</i> (2, 417)	Scheffe
TS ¹	1.84	.65	2.08	.67	1.90	.63	.879	2.985*	1<2

Note. * $p < .05$. ¹TS were transformed by reflection and square root.

(in the form of reflection and square root) of Thinking Skills for employers in professional international trade companies ($M = 1.84$, $SD = .65$) was lower than for those in the high-tech industry ($M = 2.08$, $SD = .67$). In the original scale, the results showed that Thinking Skills was rated more highly by employers in professional international trade companies than by those in the high-tech industry.

(4) Years in the position

One-way ANOVAs were conducted to examine differences in the importance of competency factors by Years in the position. Subjects were re-grouped into three subgroup categories: the junior employees (fewer than three years), the middle (4-9 years), and the senior (more than 10 years) to meet the requirement of ten percent of the total sample. The Levene's test was used to assess equality of variance. Only the factor of Importing/Exporting Practices showed that the assumption of equal variances was not assumed. The statistics shown in Table 10 indicated that the factor of Thinking Skills reported statistically significant differences at $p < .05$ among

industry groups.

A post hoc test showed that the mean score (in the form of reflection and square root) of Thinking Skills for the junior group ($M = 1.88$, $SD = .66$) and the senior group ($M = 1.85$, $SD = .66$) was lower than for those in the middle group ($M = 2.04$, $SD = .60$). After returning to original scale, the result indicated that the junior group and the senior group rated Thinking Skills significantly higher than did those in the middle experience group.

4.6 Canonical correlation

Canonical correlation was employed to assess the relationship between a set of generic competencies and a set of professional competencies when the two sets of variables were combined together in some weighted variate (Meyers, Gamst & Guarino, 2006). For canonical correlation techniques, the assumption that variables are taken from normal populations should be applied. In this study, Personal Qualities and Thinking Skills were not from a normal population; other variables were. Nevertheless, with a large enough sample size, as this study had, the result derived from a non-normal population was robust and tolerant (Stevens, 1992). Stevens (1992) suggested that a sample size 20 times the number of variables should be applied. The sample size of the employer group was 420, which was larger than 20 multiplied by nine, the number of analyzed variables in this study. In addition, linearity is an important assumption (Tabachnick & Fidell, 2007).

Figure 1 shows the loadings and canonical correlation for the four generic competency factors and five professional competency factors. Only the first pair of canonical variates was significant with Wilk's $\lambda = .588$, $\chi^2 = 220.20$, and $p < .001$. The canonical correlation between the variate pair was .631. This number indicated that the generic competency variate and the professional competency variate highly correlated to one another. The generic competency variate was $(.506)$ (IN) + $(.215)$ (PQ) + $(.026)$ (TS) + $(.411)$ (ES), and the professional competency variate was $(.431)$ (ES) + $(.098)$ (IE) + $(.506)$ (FM) + $(.098)$ (IC) + $(.027)$ (CC).

According to the canonical loading statement, all generic competency factors had very high partial correlations with their own variate. Of these, Insight had the

Table 10 ANOVAs for Employers' Perceptions by Years in the Position

Factor	1. The junior (n1 =83)		2. The middle (n2 =113)		3. The senior (n3 =224)		Sig. of Levene's test	F(2, 417)	Scheffe
	M	SD	M	SD	M	SD			
TS ¹	1.88	.66	2.04	.60	1.85	.66	.228	3.242*	1,3 < 2

Note. *p < .05. ¹TS were transformed by reflection and square root.

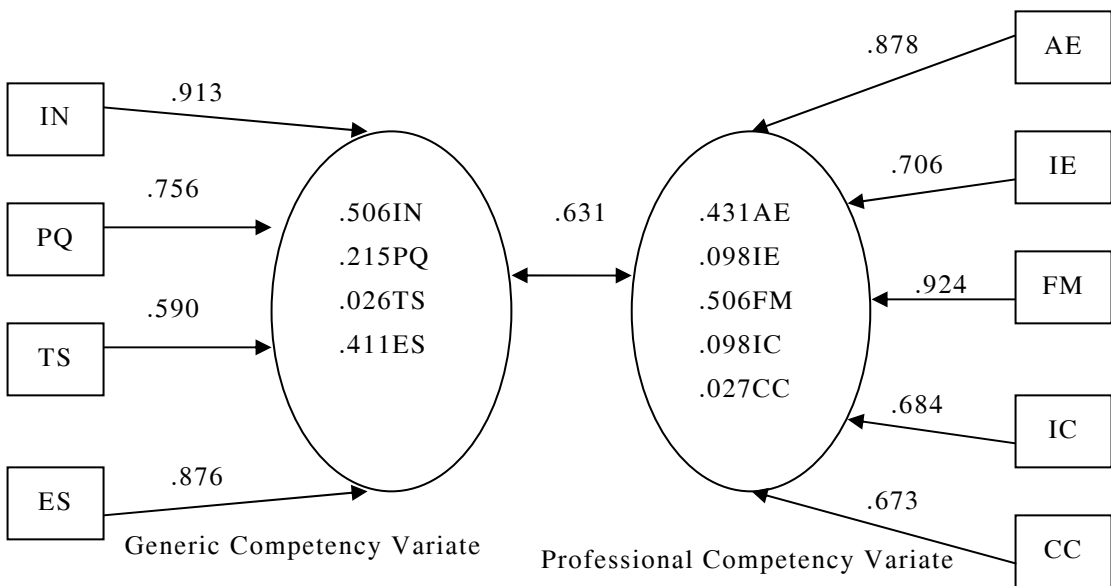


Figure 1 Loadings and Canonical Correlation for the Generic and Professional Competency Variates.

Note. IN = Insight; PQ = Personal qualities; TS = Thinking skills; ES = Executive skills; AE = Awareness of the international trade environment; IE = Importing/exporting practices; FM = International finance and marketing; IC = International communication skills; CC = Cross-cultural intelligence.

largest partial correlation with the generic competency variate(.913), followed by Executive Skills (.876), Personal Qualities (.756) then Thinking Skills (.590). The results indicated that Insight as the most important role in explaining the

generic competency variate. For the professional set, all factors also had very high partial correlations with their own variate. Among them, International Finance and Marketing showed the strongest correlation with the professional competency variate (.924). Conversely, Cross-Cultural Intelligence played the least important role in explaining the professional competency variate (.673).

Figure 2 shows cross loadings of generic competency factors on the professional competency variate. Insight showed the strongest correlation with the professional competency variate (.576). The results indicated that Insight was emphasized the most by those who emphasized the importance of overall professional competency. This result was similar to that of Pearson correlation. Conversely, Thinking Skills had the weakest correlation with the professional competency variate (.372).

Figure 3 shows cross loadings of professional competency factors on the generic competency variate. International Finance and Marketing was the strongest predictor of the generic competency variate (.583). The results verified that of Pearson correlation, saying those who emphasized the importance of International Finance and Marketing also put more stress on the importance of overall generic competency than those who emphasized other professional competency factors. On the other hand, Cross-Cultural Intelligence was reported to have the weakest correlation with the generic competency variate (.424).

5. Conclusion

The study revealed that employers placed greater importance on generic competencies than professional competencies. This finding was similar to the previous investigation suggesting that over 60% of managers ranked attitudes as more important than knowledge and skills (Importers and Exporters Association in Taipei, 2008). This finding also supported the perception that graduates' emotional quotient (EQ) were more reliable predictors of their superior performance than intelligence quotient (IQ) (Kemper, 1999). Employers ranked the following top six generic competencies as very important: responsibility, enthusiasm, ability to

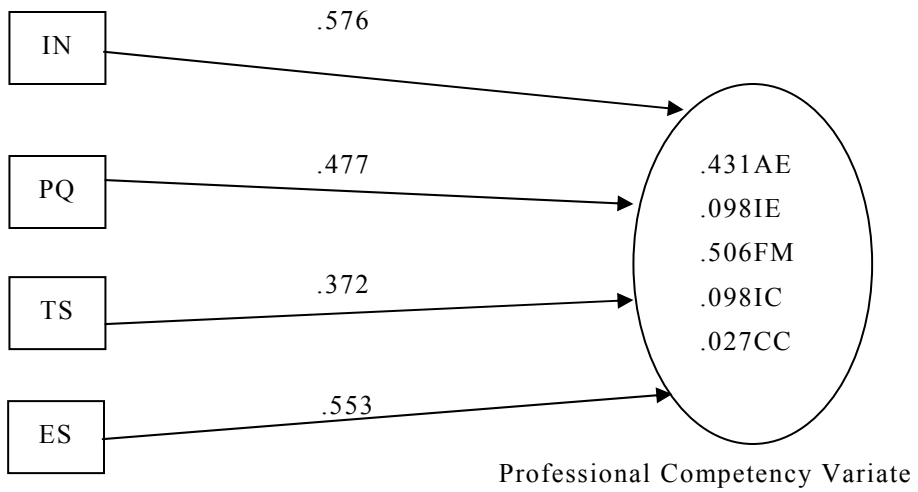


Figure 2 Cross Loadings of Generic Competency Factors on the Professional Competency Variate.

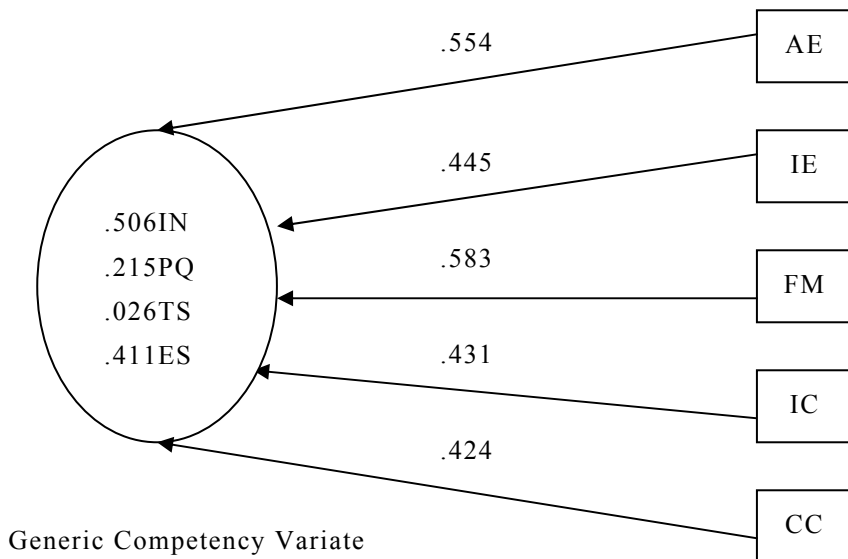


Figure 3 Cross Loadings of Professional Competency Factors on the Generic Competency Variate.

learn, communication skills, teamwork, problem solving. Of these, responsibility, enthusiasm, and ability to learn were categorized into Personal Qualities, the most important generic competency factor. The second important generic competency factor was Executive Skills, followed by Thinking Skills, then Insight.

In professional competencies part, employers rated top five professional competencies as follows: communicating fluently with English, identifying the contents and characteristics of your company's products or services, identifying terms of trade, identifying importing or exporting processes, and identifying a variety of international payment tools. Of particular note, both acquiring certificates of English proficiency and acquiring international trade skills were ranked the least important of professional competencies. This result reflected that employers were concerned about what competencies employees had rather than what certificates they had. Surprisingly, Taiwanese students or young people were very keen on obtaining a variety of certificates to rise the opportunity of employment nowadays. It is necessary to meditate on the essentiality and appropriateness before students decide to take a certificate test. In terms of factors, employers rated five professional competency factors in order: International Finance and Marketing, Importing /Exporting Practices, International Skills, Awareness of the International Trade Environment, and Cross-Cultural Intelligence. First, the result revealed that severe global competitive pressure forced enterprisers put more emphasis on international management to sustain and open markets. Second, although cross-cultural intelligence was viewed less important than other professional competency components, employers rated it still at an important level in today's world that full with a number of cross-culture exchange opportunities.

Furthermore, Insight was emphasized by male employers more highly than did female employers. Personal Qualities and Awareness of the International Trade Environment was assigned higher scores by international trade directors than did "other directors" such as financial manager, major assistant, marketing director, and shipping director. Thinking Skills was perceived more important by male, junior and senior employers as well as employers who were in the position of "other directors" and who were in professional international trade company. Given above statements, employers' perceptions of the importance of competencies were quite consistent in statistics, especially in professional competencies. Therefore, the competency

profile that the study suggested could be applied to different demographic groups in Taiwan's international trade workplace.

The importance of generic and professional competencies was sometimes interrelated. For example, those who thought Importing/importing Practice was important would also emphasize the importance of Executive Skills. And, those who emphasized the importance of International Finance and Marketing significantly would also value the importance of overall generic competency. In addition, Insight was the strongest predictor of overall professional competency. The positive relationship between generic and professional competencies adds support to the idea that soft skills and hard skills complementarily function together for performance in a job, as proposed by Kemper (1999), and McMurchie (1998). Also, the finding points out that employers can select people who own certain high-quality generic competencies while they desire to have employees with certain professional competencies. Furthermore, better quality of generic competencies could help the performance in certain professional areas. In other words, the improvement of specific generic competencies will help to perform well in certain professional competencies. The finding may provide a base to suggest that while educators develop students' professional employability or employees improve their own professional competencies, both may also make efforts to raise certain generic competencies at the same time. Being cautious, the relationship between generic and professional competencies was exploratorily quantified by the data analysis of this study, while not generalized, there still is considerable need for further quantitative and qualitative discussion.

Current education used to focus more on intelligent and technical knowledge and skills. The study investigated the employers' perceptions of the real world. Based on the profile of competencies derived from employers' perceptions, schools and their educators should design and reform curriculum to meet the needs of the industry. Besides international trade hard skills, more soft skills such as thinking skills, insight, personal qualities, and executive skills should be designed into school programs. Hopefully, the finding of the present study may also provide accurate information for graduates or students to cultivate their own competencies for raising their employment opportunity and future performance in the future workplace. Additional research is needed to explore more items to help complete the

profile of international trade competencies.

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