

A cross-cultural study on purchasing skills: Comparing purchasing and supply management online job advertisements between Europe and Confucian Chinese Society

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Abstract

This research aims to understand whether the purchasing skills required by European and Confucian Chinese employers are culturally determined. “Purchasing skills” refers to the competencies and capabilities of the purchasing and supply management workforce necessary to work effectively in a dynamic multicultural business environment.

During the span of this study 61 key competencies from the Confucian Chinese job advertisements were identified and studied. Further analysis resulted in a top ten of the most sought-after key competencies of purchasing and supply management expertise. Which includes, in order of popularity, communication skills, analytical skills, negotiation skills and leadership skills. Moreover, the European sample was already drawn in earlier research from online job sites in three European countries with a similar GDP per capita, but with distinctive different cultural profiles: Austria, Belgium and the Netherlands.

To distinct, the cross-cultural difference in in-demand purchasing skills in the labour market, the five cultural dimensions of Hofstede is applied. Based on the frameworks of Hofstede, The results show that cultural values affect each role in developing its own set of competencies. For example, current research shows that it is essential to understand that in the Confucian Chinese societies communication between superior and subordinate is exchanged differently. In contrast, subordinate from the western cultural group expects equal power distributes in the organisation.

The study shows that cultural value is a critical factor which contributes to and influences the development of personal competency in an intercultural context. Employees can learn different aspects of culture to enhance an ability to work across cultures in purchasing and supply management.

This research will eventually direct to managerial implication. The managerial implication mainly focuses on the role of cross-cultural training which defines the knowledge and skill that purchasing and supply management workforce can act appropriately in different cultural contexts.

Keywords: Job advisements, Purchasing skills, Hofstede’s cultural dimensions

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CN: China

CVS: Chinese Values Survey

HK: Hong Kong

IBM: International Business Machines Corporation

IDV: Individualism versus collectivism

MAS: Masculinity versus Femininity

PERFECT: Purchasing Education and Research for European Competence Transfer project

PDI: Power distance index

PSM: Purchasing and supply management

SP: Singapore

TW: Taiwan

UAI: Uncertainty avoidance index

1. Introduction: the missing link between purchasing skills and cross-cultural study

1.1 The objective of measuring purchasing and supply management job requirements in Asia

Purchasing and supply management (PSM) professionals are frequently working in a global business context.¹ With the development of economics globally, industrial forms have shifted, with the rise of the technology-intensive industries over past decades.² To be able to compete globally with the complexities of cultural differences in a multicultural environment, understanding cultural differences can help professionals to communicate appropriately with people from different cultural backgrounds.³ There are many Europe-based multinational companies integrated their business into global sourcing, and a majority of them are targeting the Asian market. Successful use of cross-cultural teams could provide different insights into the inner and outer world and avoid cultural misunderstandings to achieve the competitive position of organisations in a global setting.⁴

There is a necessity of conducting a comprehensive research study on purchasing and supply management (PSM) professional competencies in an Asian context. With the rapid shifts of technology and labour force, international corporations started sourcing from the global market in order to find the most cost-efficient strategy in the delivery of goods and services.⁵ The PSM functions in European firms have been more global and interconnected in the Asian market, by offshoring to countries like China, Hong Kong and Singapore. However, not all offshoring leads to success. Partly due to cultural issues firms returned to the European suppliers.⁶ On the other hand, companies can more straightforwardly gain the innovative edge by collaborating with their global suppliers and layout companies' strategic framework to help reinvigorate the competencies of both parties in the business. The impact of national cultures on the success of operations practices and firms' performance in certain countries is significant.⁷ Deviations can explain differences in operational decision-making in the rise of cross-cultural issues, and national culture is a key factor that is influencing PSM performance.⁸ The chances of a PSM

¹ See Horn, Schiele, and Werner (2013), p. 27.

² See Vaaler and McNamara (2010), p. 3.

³ See G. Hofstede and Minkov (2010a), p. 5.

⁴ See Dafoulas and Macaulay (2002), p. 3.

⁵ See Elms and Low (2013), p. 127.

⁶ See Horn, Schiele, and Werner (2013), p. 29.

⁷ See Shou and Wang (2017), p. 59; Chipulu et al. (2014), p. 365.

⁸ See Pagell, Katz, and Sheu (2005), p. 390; Shou and Wang (2017), p. 70.

practitioner, having the opportunity to conduct business in a global context with different cultural backgrounds, are certainly higher.⁹

1.2 An introduction of the sub-cultural group “Chinese societies.”

Gupta (2002) and Fang (2003) introduced a new concept of cultural cluster in their study, based on the indigenous Chinese philosophy of Confucius, there are four significant representatives of Confucian Asian countries, which named “Chinese societies” (China (CN), Hong Kong (HK), Singapore (SP) and Taiwan (TW)).¹⁰ People from this cultural framework are more likely to react to internalised knowledge and shared cultural conditioning. The other two Confucian Asian countries are Japan and South Korea, but these two nations are non-Chinese speaking countries.¹²

Hofstede (2007) suggest that “different societies in the world have different histories and they maintain different values: there is no one universal human value system.”¹³ However, based on the Hofstede’s classification of national cultures, the “Chinese societies” often characterised as with large power distance, more collectivist and strong long-term orientation. These three characteristics of the “Chinese societies” have widely discussed in Hofstede’s study. The “*long-term versus short-term Orientation*” shows a significantly correlated relationship with other cultural dimensions, such as Individualism-Collectivism, Power Distance, and Masculinity-Femininity.¹⁴

The large power distance reflects the cultural value significantly influences the performance of individuals in the group and teamwork. The structure of Chinese societies indicates the responsibilities between subordinates and superiors in the team, will be affected by the superiors. Subordinates from the collectivistic society show a higher commitment to put the group before the personal interest. McDonald (2012) found that Confucianism offers explanation and insight into the nature of modern Chinese business leadership.¹⁵ The linear relationship between

⁹ See Kluver (2010), p. 20.

¹⁰ See Gupta et al., (2002), p. 11.

¹¹ See Fang (2003), p. 348.

¹² See Pecotich and Shultz (2016), p. 227.

¹³ See G. Hofstede (2007), p. 415.

¹⁴ See G. Hofstede (2007), p. 418.

¹⁵ See McDonald (2012), p. 467.

Confucianism and Chinese business leadership demonstrates that the cultural values influence the management skills in the Chinese society.

1.3 The range and variety of the world purchasing and supply management employability skill sets

Despite the increasing attentiveness towards purchasing and supply management (PSM), studies on desired skills and competencies of the PSM professionals did not get enough attention in scientific literature. Giunipero (2000) argues that many studies in the popular press relied upon recruiters' assessment of the skill sets required of PSM professionals as opposed to assessments by individuals that perform the job.¹⁶ Therefore, it is meaningful to define the types of PSM skills in the current business world. A comprehensive study of the employability skills set will provide extensive information on the labour market and job seeking implications to recent graduates who are willing to start their PSM career after graduation.

Table 1.1 Skills required of a world-class purchaser¹⁷

| <i>Dimension</i> | <i>Definition</i> | <i>Competency</i> |
|---------------------------|---|--|
| Strategic Skills | The purchaser should be developing strategies such as deciding upon the type of relationships to build with key suppliers and the optimum number of suppliers | Strategic thinking Supply base research Structuring supplier relationships Technology planning Supplier cost targeting |
| Process Management Skills | The purchaser needs to take a much broader view than placing a purchase order and | Organisation/management time Tactfulness in dealing with others Written communication |

¹⁶ See Larry C. Giunipero and Percy (2000), p. 7.

¹⁷ See Larry C. Giunipero and Percy (2000), p. 11.

| | | |
|-------------------------|--|--|
| | managing the purchasing process. | Problem-solving Conflict resolution |
| Team Skills | Purchasers employ skill that facilitates the development and maintenance of teams. | Teamwork Leadership Managing change Managing internal customers Salesmanship |
| Decision- making Skills | The purchaser can involve making may day-to-day decisions. | Computer literacy Ability to make decisions |
| Behavioural Skills | Behavioural skills describe the conduct of the purchasing manager in the course of his or her duties. | Interpersonal communication Risk-taking/ entrepreneurship Creativity Inquisitiveness |
| Negotiation Skills | Negotiation skills are necessary for purchasers in dealings with multiple constituencies. | Negotiation Customer focus Influencing and persuasion Understanding business conditions |
| Quantitative Skills | Quantitative skills encompass technical proficiency involving the ability to understand and use relevant technical information in communication with engineers and supplier. | Computational Technical Blueprint reading Specification development |

The PSM skill sets consist of multidimensional competences, according to Giunipero (2000), which can conclude into seven skills dimensions.¹⁸ As the table 1.1 shown above, the table indicated the range of activities that required by the employer to perform the particular occupation in the PSM industry might differ in many diverse. As a result, employees and PSM professionals can apply skill sets in the table (see table 2.1) in a variety of different situations. With the rise of uncertainties from the political climate and natural disruptions, PSM professional needs to pay attention to learning different skills and knowledge continually. The advancement of personal competencies and knowledge could help individuals have higher possibilities to remain in their employment when uncertainties occur.

Research questions

This research aims to answer the following central questions:

RQ 1: What are the similarities and culturally and structurally explained differences among the three Confucian Asian countries in job requirements in the online PSM job advertisement?

RQ 2: What are the common qualifications in job requirements in the online PSM job advertisement between Europe and Confucian Chinese societies?

RQ 3: What are the distinctions in job requirements in the online PSM job advertisement between Europe and Confucian Chinese societies?

¹⁸ See Larry C. Giunipero and Percy (2000), p. 11.

1.4 The establishment of the structure of research on the cross-cultural study

This paper consists of six chapters, each chapter includes:

The first chapter is an introduction. It mainly explains the background and motives of the research. Furthermore, the researcher described the scope of this study and the structure of this paper.

The second chapter is the literature review, through a study of the relevant quantity of literature related to this study. Also drawing up the core theoretical basis of this research, which includes purchasing and supply management skills, Hofstede's cultural dimension theory, and the extended "Asian" dimension of Hofstede's study from his cross-cultural communication study – the Confucian dynamism. Consequently, a research framework is constructed and hypotheses are defined.

The third chapter is the research methodology and data collection. This chapter mainly describes the research framework, as well as the variety of analytical methods which are used for data collection and data analysis, including “Cellwise Residual Analysis in Two – Way Contingency Tables” and KODE@X.

The fourth chapter mainly explains the results of data analysis in different datasets. Through the comparative information provided by datasets, the similarities and differences among calculated datasets will present in this chapter.

The fifth chapter discusses and analyses the characteristics of the datasets, which are formulated from data analysis. Incorporated with theories, it further discusses the changes and needs in the personal competences of the purchasing and supply management practitioners shown in online job advertisements in different cultural contexts. The sixth chapter will give summaries of the key findings in this study, and give recommendations on appropriate best practices. The results of the study and findings are summed up, and the managerial implications are present in this chapter as well.

2 Literature review

This section will define employability skills and personal competencies in the literature, and a review of relevant literature to understand the definition of purchasing skills and their development in Asian countries. Besides, the literature review will be associated with Hofstede's cultural dimension theory, investigate its framework for measuring cultural distinctions in various countries, including present Confucian dynamism, also comprehensively examine relevant theories from the literature.

2.1 The purchasing and supply skill sets consist of employability and competency

2.1.1 The definition of employability skills and competencies

The definition of employability refers to *'a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'*¹⁹. Yorke (2006) explained the definition of employability from a narrow and broad perspective. From a narrow point of view, each needs to have specific skills and personal attributes to be able to make a difference in his or her profession after leaving school. From a whole point of view, people with excellent personal attributes and competencies can make a substantial contribution to society economy and others.

Klemp (1980) defined competence as, *'an underlying characteristic of a person which results in effective and superior performance on the job'*.²⁰ Hali (2013) and his peers have concluded competence in their study as *'competence is composed of a person's experiences and personality combined with job-related factors that stem from formal and informal organisation'*.²¹ Although the definition of competencies and employability is slightly different, there are commonalities in emphasising some critical capabilities of individuals. Employability refers to the advancement of specific technical abilities under the higher education and professional field, for example, the hard skills developed through long-term training. Having well-developed employability can help an individual's success in a particular area and achieve work goals than others.

¹⁹ See Yorke (2006), p. 8.

²⁰ See Klemp Jr (1980), p. 21.

²¹ See Zaim, Yaşar, and Ünal (2013), p. 68.

Furthermore, the current knowledge-based economy is developing rapidly, and there is a growing trans-nationalisation of production of goods and services.²² As a result, the development of the global economy is increasingly changing the demands of the labour market for skills and competencies. In a research carried out by the World Bank “Stepping up skills for more jobs and higher productivity” in 2010, the World Bank listed the demand-driven skills from the labour market (See Table 2.1). The talents require often emphasise the importance of being more open-minded, creative, will to learning, and a collaborator. Therefore, it is crucial for the individual to become more competitive by sharpening personal skill sets in many ways.

Table 2.1 The demand skills of building job-relevant skills²³

| What are job-relevant skills | |
|--|---|
| Job-relevant skills refer to a set of competencies valued by employers and useful for self-employment. They include skills relevant to the specific job of the work as well as other skill that enhance his or her productivity. These other skills include: | |
| <i>Problem – solving skills</i> | The capacity to think critically and analyse. |
| <i>Learning skills</i> | The ability to acquire new knowledge (“learning to learn”), distil lessons from experience and apply them in search of innovations. |
| <i>Communication skills</i> | These skills include reading and writing, collecting and using the information to communicate with others, and using a foreign language and information and communication technologies (ICTs) as communication tools. |
| <i>Personal skills</i> | The ability for self-management, making sound judgments, and managing risks. |
| <i>Social skills</i> | The capacity to collaborate with and motivate other in a team, manage client relations, exercise leadership, resolve conflicts and develop social networks. |

²² See Dunning (2002), p. 97.

²³ See World Bank (2010), p. 15.

2.1.2 The definition of purchasing and supply management skills

Purchasing and supply management (PSM) skills are occupationally specific skills required of a purchasing professional who involves every business that deals with various aspects of buying or sourcing goods and services.

In general, scholars have argued that the three most essential PSM skills are “Negotiating skills”, “Problem-solving skills” and “Analytical skills”. In a study by Giunipero (2000), a skill-based analysis of the world-class purchaser was completed.²⁴ The research of the world-class purchasing professional specified each PSM job employment with specific desired employability and competencies into a skill matrix. Furthermore, the empirical investigation of world-class purchasing skills discussed the competency assessment worksheet and procurement training assessment profile.²⁵

Based on the skill model (Table 2.2) shown below, PSM jobs require a combination of hard skills and soft skills that are formed in various aspects. Giunipero (2000) optimised the skill model (see Table 2.2) and generalised seven dimensions of the skill set required for the world-class purchaser, which including “*Strategic Skills*”, “*Process Management Skills*”, “*Team Skills*”, “*Decision-making Skills*”, “*Behavioural Skills*”, “*Negotiation Skills*” and “*Quantitative Skills*”.²⁶ The work completed by Giunipero (2000) shown the fact of increasingly changing the demands of the PSM labour market for purchasing skills. The identification of the required skill of a purchasing professional provides a systematic overview for further research into the purchasing skills.

²⁴ See Giunipero (2000), p. 35.

²⁵ See Giunipero (2000), p. 38-39.

²⁶ See Larry C. Giunipero and Percy (2000), p. 11.

Table 2. 2 Characteristics of a Purchasing professional ²⁷

| CHARACTERISTICS OF A PURCHASING PROFESSIONAL | | | |
|--|---|--|---|
| Product Knowledge | Principles of Purchasing and Management | Personal Attributes | Interpersonal Skills |
| Is knowledgeable about: <ul style="list-style-type: none"> • Product or materials • Prices • Major sources • Quality issues • Customer requirements | Understands: <ul style="list-style-type: none"> • Overall role of the function • Quality theory • Pricing theory • Inventory control and management • Value analysis • Supply chain management • Make vs buy • Capital equipment buying • Purchase timing • Value analysis • Negotiation • Knowledge of other functions | <ul style="list-style-type: none"> • Integrity • Detail-oriented • Likes to do research • Careful and deliberate decisionmaker • Ability to tolerate conflicts and ambiguity • Takes appropriate risks • High self-esteem • Initiative | <ul style="list-style-type: none"> • Teaming • Listening • Verbal communication • Written communication • Tolerance for conflicting views • Manager • Works well with internal and external customers • Reaches workable compromise • Handles conflict effectively • Adept at organisational politics • Maintains a positive mental attitude • Coordinates purchasing department's role with that of the organisation |
| Technical Knowledge | Analytical Ability | Managerial | |
| <ul style="list-style-type: none"> • Product knowledge • Purchasing principles • Organization's business • Current trends • Final customer needs • Needs of internal customers | <ul style="list-style-type: none"> • Identifies and solves problems • Makes sound decisions quickly • Thinks in the abstract • Analysis various strategic options and their direct potential and indirect impact on the organisation | <ul style="list-style-type: none"> • Planning • Organization • Leadership • Communication • Motivation • Control • Goals and strategies | |

²⁷ See Larry Carl Giunipero (2000), p. 6.

2.2 The employability of purchasing and supply management skills in Asia

In the 1990s, Goh and Lau pointed out that Asian countries are interested in training existing staff and new purchasers since the supplier base in the Asian market is growing.²⁸ Nowadays, Asian countries are actively involved with the parent companies' global procurement activities.²⁹ Firms acquire two types of knowledge, namely market and technical knowledge. Also, scholars believe that the value of market knowledge will be extended by providing employees and managers, who have a strong entrepreneurial spirit, with training programs that enhance their ability to apply market knowledge.³⁰

However, firms are unable to find workers with requisite skills in Asia, even among graduates with advanced degrees, employers routinely complain that young people lack the required skills in the workplace.³¹ Employers globally, including Asia, appear to have difficulty finding resources for both hard and soft skills.³² Asian Development Bank (2015) report that occupation-specific skills, creativity, adaptability, and interpersonal communications which employers found are the skills mismatch between academic education and formal training.³³

The skill gap is evident between higher education and employment. From the academic education perspective, it is a challenge to identify occupation-specific skills which will have demands in the future. Although it is possible for a student to pursue a professional certification and training course to get better prospects in employment before leaving school. However, formal training is a time-consuming learning process, which may demand even more time than the academic study.

²⁸ See Goh and Lau (1998), p. 124.

²⁹ See Carr et al., (2000), p. 1428.

³⁰ See Ma and Huang (2016), p. 966.

³¹ See Ra, Chin, and Liu (2015), p. 20.

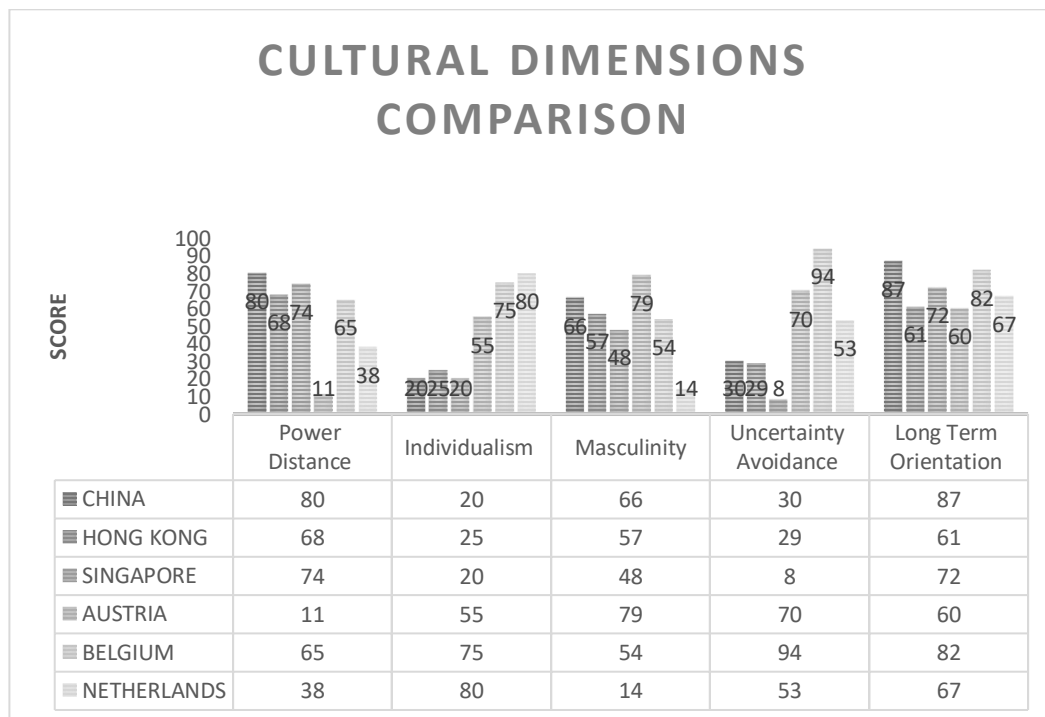
³² See Ra et al. (2015), p. 23.

³³ See Ra et al. (2015), p. 26.

2.3 Hofstede’s cultural dimensions theory

The “Culture’s Consequences” concluded a cross-cultural study with extensive research of employees from culturally diverse backgrounds at the international corporation IBM.³⁴ Based on the results of the study at IBM, Hofstede divided original national cultural variabilities into four dimensions of national cultural values, including “*Power distance index (PDI)*”, *Individualism versus collectivism (IDV)*, *Uncertainty avoidance index (UAI)*, and *Masculinity versus Femininity (MAS)*. Based on the original four theories on a cross-cultural study, Hofstede adapted a national value dimension originally found by Bond (1984), and extended to a new dimensional scale of national cultures, which concluded as “*Long- versus short-term orientation.*”³⁵ The “Culture’s Consequences” has been one of the most influential works in the field of culture study.³⁶ The Hofstede’s cross-cultural model illustrates different cultural values, which help people to distinguish and learn one culture from the other cultures. (see Figure 2.1)

Figure 2. 1 Hofstede Culture Compass³⁷



³⁴ See Hofstede (1980), p. 102.

³⁵ See G. Hofstede and Minkov (2010b), p. 493.

³⁶ See Hofstede (1980), p. 103.

³⁷ See G. Hofstede and Minkov (2010b), p. 491.

2.3.1 The first dimension: Power distance

The dimension of power distance refers to the degree to which people attach importance to social hierarchy and authority, in other words, the less powerful members of organisations and institutions accept and expect that power is distributed unequally.³⁸ China ranks 80 on PDI which shows there is a lot of power distance between lower social hierarchy and higher authority. These inequalities can be seen as normal and acceptable in China and Hong Kong (ranks 74 on PDI), therefore, individuals without power are less likely to challenge their superiors. A misunderstanding of this culture values in Asian countries could lead to miscommunications while conducting business on a daily basis. Guo and Lu (2018) argue that people with a high-power distance orientation are more concerned about the treatment they receive from authorities.³⁹ And in low power distance situation, people tend to have strong social connection with leaders.⁴⁰

In western cultures, it can be observed that this power distance is considerably lower. With a score of 11 in the power distance dimensional scale, Austria shows there is a horizontal relationship between superior and subordinate. Also, the PDI for the Netherlands is relatively low, which means the power inequality is less dependency on the relationship between powerful members and less powerful members, communications are likely to be through more direct.

Therefore, hypothesis 1a and 1b constructed in the following:

Hypothesis 1a: For countries from the “Confucian Chinese societies” with relatively large power distance levels, requirements in PSM online job advertisements are focused on PSM professionals who have strong leadership skills.

Hypothesis 1b: For countries from the European countries with relatively small power distance levels, requirements in PSM online job advertisements are less focused on PSM professionals who have strong leadership skills.

³⁸ See G. Hofstede and McCrae (2004), p. 62.

³⁹ See Guo and Lu (2018), p. 8.

⁴⁰ See Tyler, Lind, and Huo (2000), p. 1146.

2.3.2 The second dimension: Individualism versus Collectivism

Cultural individualism-collectivism has a direct effect on communication because it affects the norms and rules that guide behaviour in individualistic and collectivistic cultures.⁴¹ As Hofstede explained in his work with McCrae (2004), the individualism refers to the degree to which individuals are integrated into groups.⁴² In the individualistic society, people tend to be more critical thinking and independent in their work as well as their peers'. On the other hand, however, individuals from the collectivistic society are the opposite of those from an individualistic culture. There is a higher tendency to make decisions based on what would be most advantageous for the group as a whole instead of the individual. Vice versa the same can be applied for the group towards the individual. The 'group' will as well have an influence or assert pressure on the individual to confirm their decisions with the current status quo or beliefs.

As observed in figure 2.1, the figure shows there is a correlation between high ratings on power distance and low ratings on individualism. Gudykunst, Ting-Tooney and Chua (1988) contend that individualism and collectivism exist in all cultures, but one pattern tends to be predominant.⁴³ Gudykunst (1996) and his peers suggest that there is a positive correlation between high-context communication and collectivistic cultures, whereas low-context communication is associated with individualistic cultures.⁴⁴ Countries defined by high-context communication, such as China, which people likely have a less direct discussion in the group, and more willing to listen to the ideas from others.

According to Lewis (2005), Hong Kong and Singapore belongs to the same communication pattern; the communication style of Austria, Belgium and the Netherlands are more in line with western values.⁴⁵ Members of an individualistic culture, they probably tend to use a direct, result-oriented approach in their communication style. Alternately, members of a collectivistic culture are less direct to speaking out their ideas and try to avoid any conflict situations.

⁴¹ See Gudykunst et al. (1996), p. 511.

⁴² See G. Hofstede and McCrae (2004), p. 63.

⁴³ See Gudykunst, Ting-Toomey, and Chua (1988), p. 113.

⁴⁴ See Gudykunst et al. (1996), p. 22.

⁴⁵ See Nishimura, Nevgi, and Tella (2008), p. 787.

2.3.3 The third dimension: Masculinity versus Femininity

Cultural masculinity stands for a focus on ego, money, things, and work; cultural femininity for a focus on relationships, people, and quality of life.⁴⁶ The prior Hofstede's study is showing that employees in masculine countries scored higher on job stress than those in feminine countries.⁴⁷ In the masculinity society, a country with this characteristic is more emphasis on competition and efficiency. At the masculinity society, people need to learn how to work under pressure and tend to be more task-oriented. A higher score on masculinity means that participants prefer men to have power and expect men to be effective leader in organisations.⁴⁸

Following this definition, the high score of Austria on the MAS dimension may reflect there is a lack of fairness in the wage paying, fewer females in management or leadership roles. On the other hand, the Netherlands shows sustainable progress in closing the gender gap and have more awareness about gender equality in the workplace. Thus, in masculine cultures political/organisational values emphasise material success and assertiveness, wherein feminine cultures, they accentuate other values, interpersonal relationship, and sympathy and concern for the work.⁴⁹ The shift from masculinity to femininity reflects on the gender roles in the organisation, in which women have increasingly gained positions of power since Hofstede's data were collected.⁵⁰

Therefore, hypothesis 2a and 2b constructed below:

Hypothesis 2a: For countries from the "Confucian Chinese societies" with relatively high masculine levels, requirements in PSM online job advertisements are focused on PSM professionals who have strong communication skills.

Hypothesis 2b: For countries from the European countries with relatively low masculine levels, requirements in PSM online job advertisements are less focused on PSM professionals who have strong communication skills.

⁴⁶ See G. Hofstede and McCrae (2004), p. 72.

⁴⁷ See G. Hofstede (1980), p. 281.

⁴⁸ See Wu (2006), p. 39.

⁴⁹ See Arrindell and Veenhoven (2002), p. 2.

⁵⁰ See Fernandez, Carlson, Stepina, and Nicholson (1997), p. 52.

2.3.4 The fourth dimension: Uncertainty avoidance

Hofstede (1991) defines this dimension as *'the extent to which the members of culture feel threatened by uncertain or unknown situations.'*⁵¹ There is no relationship with uncertainty avoidance, which confirms that uncertainty avoidance is not the same as risk avoidance.⁵²

Uncertainty avoidance indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations.⁵³ Uncertainty-avoiding cultures attempt to minimise the all-possible contingencies by developing a reliable and enforceable legal system. Singapore and Hong Kong, which are known to have high legal embeddedness and both, are low uncertainty avoidance-collectivist countries.⁵⁴ A reason for the presence of both high legal embeddedness and low uncertainty avoidance could be explained by the fact that Singapore, as well as Hong Kong, were former colonies of the United Kingdom. The British colonisation could explain the high legal embeddedness and the countries' proximity to China and its sphere of influence could be the reason behind the low uncertainty avoidance.

Some scholars argue that trust is most important when both legal embeddedness and social embeddedness are low.⁵⁵ In the "Chinese societies", as a purchaser or buyer, one needs to learn how to build trust with their suppliers, in order to easily engage people in a business relationship. The general notion of trust is "Firm reliance on the integrity, competence or character of a person."⁵⁶ In the workplace, employees in high uncertainty avoidance cultures, value instructions, standard operating procedures, and a precise definition of what the organisation expects of its employees. People are less open to change and innovation than people of low uncertainty avoidance cultures.⁵⁷ Mueller and Thomas (2001) found that individuals with both an internal locus of control and innovative orientation are more frequently in highly individualistic and low uncertainty cultures.⁵⁸

⁵¹ See G. Hofstede (1991), p. 13.

⁵² See De Mooij and Hofstede (2011), p. 189.

⁵³ See G. Hofstede and McCrae (2004), p. 62.

⁵⁴ See Lim, Leung, Sia, and Matthew (2004), p. 555.

⁵⁵ See Svejenova (2006), p. 16.

⁵⁶ See Langenberg (2007), p.106.

⁵⁷ See De Mooij and Hofstede (2011), p. 183.

⁵⁸ See Mueller and Thomas (2001), p. 52.

2.3.5 The fifth dimension Long-term versus Short-term orientation

Minkov (2007) conducted a new analysis of the “World Values Survey” database, and explained it as a contrast between societies with many selves that resemble a proud and stable monolithic monument versus societies with many selves that are humble and flexible.⁵⁹ Furthermore, this dimension is mainly used to measure the degree to which individuals of a single culture group have an incentive to delay the attainment of its emotional and social needs.⁶⁰ In long-term oriented societies, there is perseverance towards slow results, willingness to subordinate for a purpose and traditions are adapted to a modern context.⁶¹ On the long-term orientation dimension, Belgium and China have the highest score, with an 85 (Belgium) and 87 (China) respectively. The scores show the two nation are align with each other, the high score of Belgium and China reflect that people are proactive and goal driven, following the organisational procedures is essential in their cultural values. In business world, short-term oriented traders are more opportunistic, however, long-term oriented traders show patience in the negotiations.⁶²

Therefore, hypothesis 3a and 3b constructed below:

Hypothesis 3a: For countries from the “Confucian Chinese societies” with relatively higher score on long-term orientation, requirements in PSM online job advertisements are focused on PSM professionals who have strong negotiation skills.

Hypothesis 3b: Due to the similarities in the dimension of long-term orientation, three European countries which score equally high on long-term orientation, requirements in PSM online job advertisements are focused on PSM professionals who have strong negotiation skills.

2.3.6 The Confucian Dynamism Dimension

Based on a questionnaire “Chinese Values Survey (CVS) designed by Chinese scholars, scholars have argued that there is Confucian Work Dynamism, which is identified in Asian countries and strongly correlated with recent economic growth.⁶³ According to Franke, Hofstede and Bond

⁵⁹ See Minkov and Hofstede (2012), p. 5.

⁶⁰ See G. Hofstede and Bond (1988).

⁶¹ See G. Hofstede (1991), p. 173.

⁶² See G. J. Hofstede, Jonker, and Verwaart (2008), p. 5.

⁶³ See G. Hofstede and Bond (1988), p. 9.

(1991) in their study, the Confucian dynamism, which refers to *'the acceptance of the legitimacy of hierarchy and the valuing of perseverance and thrift, all without undue emphasis on tradition and social obligations which could impede business initiative'*.⁶⁴

Hofstede defined the fifth dimension as "Confucian Dynamism" (also known as the fifth cultural dimension 'Long- versus short-term orientation') in his later work in 1991. In the second edition of *Culture's Consequences*, this new finding is discussed extensively. *'Values associated with long-term orientation are thrift and perseverance; values associated with short-term orientation are respected for tradition, fulfilling social obligations, and protecting one's "face"'*.⁶⁵

In general, traditional Chinese culture results mainly from the influences of Confucianism.⁶⁶ From the past to the present, Confucius' thoughts can be regarded as the main core value of Chinese culture. The idea of Confucius has clarified that the family is the rudiment of all social organisation.⁶⁷ Furthermore, Confucian ethics emphasise harmonious relationships within society, family, and individuals, and have influenced the business practice in Confucian Chinese society.⁶⁸

According to Yum (1988), "Confucianism has endured as the basic social and political value system."⁶⁹ Confucianism is uniquely compared with the Western dimension; the Eastern dimension is full of questions of spirit and openness.⁷⁰ G. Hofstede and Bond (1988) argue that Confucius believes that to create a stable and harmonious society it is critical to understand the relationships between people and the value of each in society.⁷¹ Furthermore, Hofstede (2003) argues that Confucianism is not a religion but a set of practical rules for daily life derived from Chinese history.⁷² Moreover, the research group suggested intercultural negotiations demanded insight into the range of cultural values to be expected among partners from other countries and compared against the negotiators' own culturally determined values.⁷³

⁶⁴ See Franke, Hofstede, and Bond (1991), p. 167.

⁶⁵ See G. Hofstede (1994), p. 5.

⁶⁶ See G. Hofstede and Bond (1988), p. 8.

⁶⁷ See Minkov and Hofstede (2012), p. 12.

⁶⁸ See Cheung and Yeo-chi king (2004), p. 246.

⁶⁹ See Yum (1988), p. 376.

⁷⁰ See G. Hofstede and Bond (1988), p. 11.

⁷¹ See G. Hofstede and Bond (1988), p. 12.

⁷² See G. Hofstede (2003), p. 5.

⁷³ See G. Hofstede and Minkov (2010a), p. 9.

Followed by Figure 2.1, Confucian Chinese Society is characterised by a larger level of power distance, a high level of collectivism and a larger long-term orientation.⁷⁴ On the other hand, Hofstede's country comparison shown that that people from high power distance and collectivism cultural backgrounds are unwilling to share decision-making and lack effective communication when working on projects.

Hofstede's contribution on the cross-cultural study is good starting point for researcher who is plan to conduct a study on a particular country. Hofstede's research was path-breaking in conceptually distinguishing national cultures and suggesting ways in which their differences may have consequences for people and organizations.⁷⁵ Because culture is too complex, culture includes main culture and sub-culture. It is difficult to learn the cultural values of particular country or group without assistance of the critical conclusions from prior cultural studies.

As a matter of fact, the five cultural dimensions help to differentiate the similarity and dissimilarity of the research objectives in this study. Firstly, Hofstede's cultural theories have been empirically associated with understanding diverse cultures and can help to conduct business research, specially where intercultural factors are involved. Secondly, Hofstede's findings are based on extensive research which resulted in a wide array of models and theoretical concepts on cross-cultural study between organisational values and nation values.

3 Data and Methods: collecting job information and using it to identify skills in PSM expertise

This chapter combines the previous chapter of the literature review to refer to the employability, competence and Hofstede's cultural dimensions theory to construct a description of the research structure and independent and dependent variables. Also, it briefly describes the research framework used to facilitate subsequent analysis in this paper.

3.1 Research framework

The prior study of the European set is a part of the Purchasing Education and Research for European Competence Transfer project (PERFECT). This project aims to contribute to the issue of how to design modules for an academic European PSM curriculum that meet the needs of employers for PSM personnel. The European data has investigated online PSM job

⁷⁴ See Minkov and Hofstede (2012), p. 7.

⁷⁵ See Papamarcos, Latshaw, and Watson (2007), p. 255.

advertisements in three countries from the European Union, including Austria, Belgium and the Netherlands. Previous European studies found common grounds and culturally and structurally induced differences. There is evidence that the common grounds can be seen as a European set of PSM requirements. The job advertisements were found on online platforms in different languages. The frequency of the requirements mentioned in the set of 100 Austrian, 100 Belgian and 100 Dutch was taken into account.⁷⁶

This study of the cross-cultural difference of purchasing skills in Asia adapted the research methodology of the European analysis of job requirements in online PSM job advertisements. In the European cross-cultural study, there are three distinct European cultural clusters represented by Austria, Belgium and the Netherlands. In the study of “Confucian Chinese Society” the same research methods were applied to collect secondary data: online job advertisements. Consequently, China, Hong Kong and Singapore are taken in account in this research (see Figure 2.1). Because in Singapore 74.3 per cent of the population constitutes of citizens with a Chinese origin.⁷⁷ The frequency of the job requirements mentioned in the set of 100 China, 100 Hong Kong and 100 Singapore were set. A large sample size of 300 online PSM job postings will be grouped and coded as different skill into a competency matrix: KODE®X. KODE®X is an organisation-specific competency model that measures personal competencies and structures of individuals and teams in organisational units. There are two German scholars developed a model and provided externalised statements for personal management and decision makers for continuous personal development. Following the prior study, the “Confucian Chinese society” skill sets are measured using the following constructs: personality competence, activity and action competences, social-communicative competences and methods and professional competences.

1. Personal competence (P): Ability to be smart and critical towards oneself, to develop productive attitudes, values and ideals.
2. Activity and action competence (A): ability to implement all knowledge and ability, all results of social communication, all personal values and ideals strong and active.

⁷⁶ See Stek, Koch, Zunk, and Schiele (2017).

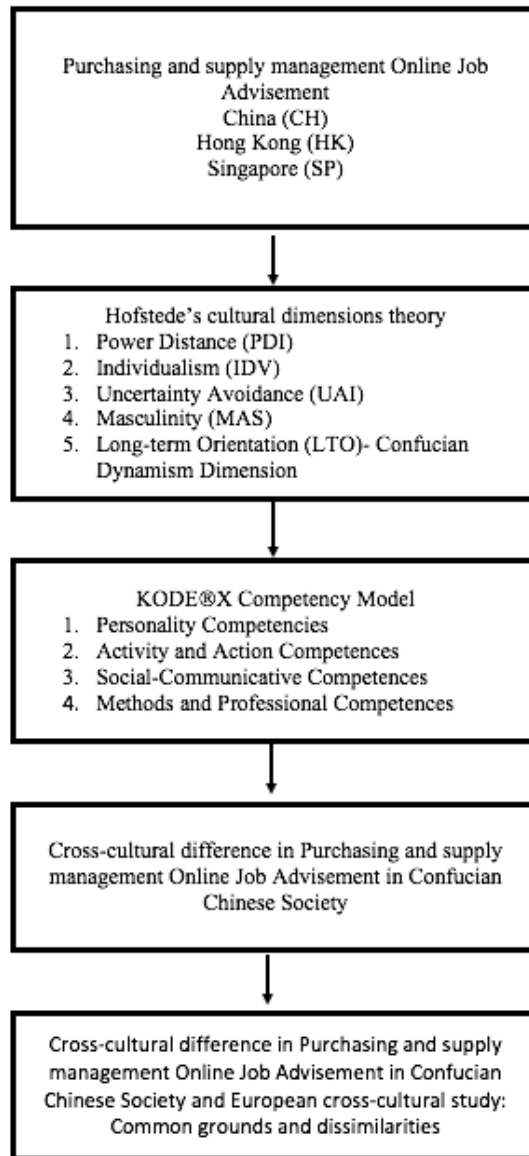
⁷⁷ See Lansford (2014), p. 983.

3. Technical Methodological Competence (F): Ability to be well-equipped with technical and methodical knowledge, to cope with almost unsolvable problems creatively.
4. Social-communicative Competence (S): Ability to interact with others on their initiative. Creative to cooperate and communicate.

Hofstede's cross-cultural studies provide an underlying theoretical framework, "*the collective programming of the mind which distinguishes the members of one group or category of people from another.*"⁷⁸ With the integration of Hofstede's cultural dimensions theory, the comparison of the collected data from the Confusion Chinese Society and the European dataset to understand and analyse the variety of cultures values in many ways. This study aimed to assess and examine whether there are similarities and dissimilarities between two distinct cultural groups and to understand to what extent the cultural factors will influence the employability and competency of PSM professionals. The structure of the research framework will display in figure 3.1.

⁷⁸ See G. Hofstede (1994), p. 1.

Figure 3. 1 The research framework of a cross-cultural study on purchasing skills



3.2 Data collection: A search of online databases produced a substantial number of variables

This study collected all research data from the online job vacancies searching engine, “LinkedIn”. In general, LinkedIn allowed researchers immediate access to reliable and the latest PSM job advisements which are composed of three research objectives: China, Hong Kong and Singapore. However, when researchers attempted to collect raw data (300 PSM job advisements) from LinkedIn. There was a challenge to obtain all needed data in a short period. Countries such as Hong Kong and Singapore had an insufficient number of PSM job postings on the site. On the other hand, a number of job advisements did not list enough job responsibilities and skills in the job descriptions. As each online PSM job posting must contain at least three job requirements to ensure the data’s transparency and completeness, the job postings which cannot meet criteria will lead to the elimination of targeted job postings from the data collection process. This measurement resulted in a limited amount of job requirements, available for study and will decrease the possibility to detect the effect on the sample. Therefore, only the sufficient data which meets the criteria of selection will be included in the database for data analysis.

For reasons of transparency, completeness and relevance, researchers also employed key search terms “Purchaser”, “Junior Buyer”, “Buyer”, “Senior Buyer”, “Purchasing Manager” and “Purchasing/ Procurement Engineer” while sampling. The raw data was available in English and part of them were available in Mandarin. Since this research is conducted in English, therefore, the non-English data has been translated into English. This step helped researchers to further conduct data analysis work and obtaining a deep insight on the database, which consists of 300 online PSM job advisements.

The primary research on the LinkedIn shows there are over 150 local and multinational corporations (MNC) who have offices in the three countries (China, Hong Kong and Singapore) from the “Confucian Chinese Society”. In order to ensure that the data analysis is conducted with correct and functional data, job advisements that were released by employment intermediaries have been excluded from the scope of this study. Because the duplication of the PSM job postings from the same company in the same job market will have a critical impact on the validity of data.

Consequently, the collected data is vital to help researchers to capture all relevant critical factors that will influence the late comparison analysis of purchasing skills. Furthermore, researchers

also can extract more variety of data and relevant evidence on the distinction between different skill sets to conduct further study on data analysis.

After 8 weeks (from July 2017 to August 2017), a total of 303 PSM job advisements were completed in the collection of data procedure. As a result, 300 PSM job advisement were selected to employ on the purchasing skills on cross-cultural study.

3.3 Keyword coding: grouping of job requirements into the four skills dimensions of KODE®X

The collected 300 online job advertisements will be processed and classified into different groups with the assistance of KODE®X skill matrix.

First, it is necessary to understand the content of the job postings. The primary data from job postings site may be very diverse. There is plenty of information contains in one job posting. It is easy to have a misunderstanding between job skills requirement and job responsibilities description. The employer may not specify the job skills and competencies in their recruitment information. Second, the keyword coding procedure is a time-consuming activity. The keyword skill code for conducting this research is selected based on the KODE®X skill matrix. However, it is difficult to identify the common keywords from the skill matrix. Some skill terms are not well translated into English (KODE®X skill matrix is only available in German).

However, all recorded data will in line with the European datasets and processed in the same manner. Therefore, the keyword is shown in the online job advertisements “ability to collaborate with individuals across multiple cultures and geographies” will be translated into “being a team player” and “international mindset and intercultural sensitivity”.

As a result, the Confucian Chinese Societies dataset obtained 73 purchasing skills. It covers much information, which including the skills, experience and professional qualifications. However, there are some purchasing skills have a relatively low frequency of demands may not be valuable to apply to our research. Because there some specific skills are unfamiliar with other countries’ job postings.

3.4 Data analysis: The data demonstrate common grounds and distinctions between different datasets

Firstly, three datasets from Confucian Chinese Societies will be operationalised in the different Microsoft Excel to calculate frequencies. In order to conduct a comparative study with the analysis of variance (ANOVA) test in Confucian Chinese Societies, the Cell-wise Residual Contingency Analysis will be trialled.⁷⁹ The Cell-wise Residual Contingency Table Analysis will be performed in IBM SPSS Statistics 22 by squaring the individual Adjusted Residual per cell of the Cross Tabulation. The test result was performed as advised with the use of standardised residuals by Garcia and Nunez (2003). Subsequently, SPSS calculated the associated P-values per country for each competency in order to find the significant differences and similarities between the three European percentages per skill and the three Confucian Chinese percentages per skill. With the result, we start to create contingency tables in order to conduct a further comparison between different sets of data and hypotheses testing.

In order to further understand which groups are significantly unlike from other groups, a t-test on each pair of groups was tested. Alpha is set on 0.05 and divided by two: the number of observations (countries) per skill. China & Hong Kong, Hong Kong & Singapore and Singapore & China. Once the z-test has been done, the matrix will be highlighted with different colours as objects achieve or over defined Z-score. After pairwise comparisons, we define Europe dataset suggested as a control group and conduct the multiple comparisons with Dunnett's test.

With this result, it is essential to understand better what the impact of the 3,600 variables will be, looking at the Confucian Chinese Societies dataset. Also, with the constructed Confucian Chinese Societies dataset, it is crucial to understand further and investigate the difference and similarities of PSM professionals' competencies among the three Confucian Chinese Societies. As well as the difference and similarities of PSM professionals' competencies between Confucian Chinese and the dataset from the Europe study. The outcomes, the similarities and differences were analysed on the underlying details to obtain a more comprehensive picture resulting in about sixty different skills and competencies.

⁷⁹ See García-pérez and Núñez-antón (2003), p. 826.

4 Result and findings

The purpose of this chapter is trying to find out that there is a significant difference among China (n=100), Hong Kong (n=100) and Singapore (n=100) on different purchasing skills (n=61). The research data encompass 61 purchasing skills; the original number of purchasing skills are higher than the current value in this study.

The results from the multiple comparisons of Confucian Chinese societies will incorporate with the European datasets (n=300). The multiple comparisons among the three countries are conducted, and the results are shown in appendix 1. There was a z-test between different groups in Confucian Chinese societies, the results shown in table 4.1, table 4.2, table 4.3, table 4.4, table 4.5 and Appendix 2. The z-test will fit for the comparison between European cultural group (n=300) and Confucian Chinese societies (n=300). The results and findings of this study will present in the following sections.

4.1 Confucian Chinese Datasets: The Confucian Chinese societies provide comparative information on a range of purchasing and supply management employability skills in Asia

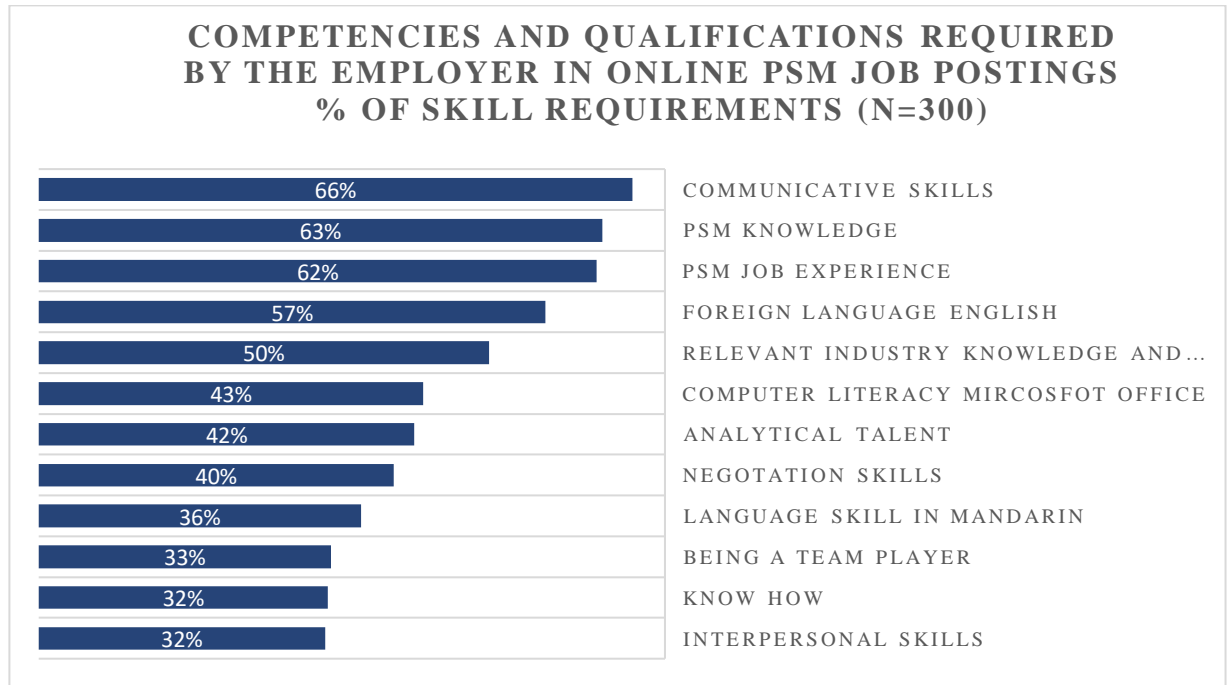
From the results can be seen that there is a statistically significant difference between 28 purchasing skills ($p < 0.05$). The 28 purchasing skills include soft skills, such as “Intercultural Sensitivity”, “Ability to Handle Stress”, “Talent for Organisation Skills”, and other skills which observed in the ANOVA test. Additionally, hard skills, including “Product Knowledge” and “Computer Literacy MS Office (Excel).”

Based on the statistical results obtained, there is no significant evidence to indicate China, Hong Kong and Singapore have different demands for the 33 purchasing skills ($p > 0.05$). Further, an overview of the skills demanding among the three countries has been made. Following the overview of the full range of skills, a list of ten highest desired skills is showing in figure 4.1 below. The top 10 requisite skills of a professional purchaser show who need to fulfil the job requirement and enable to work in Confucian Chinese societies.

In figure 4.1, all three countries have a high demand for people who have been working in the role of a purchaser or other PSM settings. Over 60% of job postings in China, Hong Kong, and Singapore, do require relevant PSM job experience or knowledge with purchasing and supply management. In the most cases, relevant working experience, communicative skills, the ability

to perform in a language, analytical talent and have strong knowledge with computer application are the five highly demand required skills for purchasing professionals.

Figure 4.1 Top 10 most desired purchasing skills in Confucian Chinese societies (n=300)



4.2 Similarities and differences among the countries of Confucian Chinese societies, includes China, Hong Kong and Singapore across multiple measures

Through the observation from the ANOVA test, it found that outcome showed a difference in the 28 purchasing skills in China, Hong Kong and Singapore; and there are 33 purchasing skills do not show there is a statistically significant difference between each group, the 15% of 33 purchasing skills (which is 50% of the most desired purchasing skills) are listed in figure 4.1.

In general, there are 28 purchasing skills has a significance which is equally distributed into two sub-cultural groups respectively. There are 17 of 28 skills shown there is the statistically significant difference between China and Hong Kong, and also there is a difference between Singapore and Hong Kong about a total 18 of 28 skills. However, in the comparison between China and Singapore, it found a total of 12 skills which has relatively low skill demand, compared to the sub-cultural group SP versus HK and CN versus HK.

The outcomes of the observation in appendix 1 indicated that (1) there are a high demand of four types of purchasing skills in Singapore, which are “*Knowledge of Contracting Principle*” “*Expert Knowledge*”, “*Know-How*” and “*Process management*” compared to China and Hong Kong; (2) “*Computer proficiency*”, “*Language skills in Mandarin*” and “*PSM job experience*” are three high demand skills in Hong Kong; (3) in China, skills such as “*Capacity Cooperate*” and “*Personal Management/ Leadership*” are the most desired personal competencies in the PSM job market.

Table 4.1 reports the z value ($z = -2.77519$) which indicates there is no difference ($Z \leq -1.96$) between the mean of two independent populations, Singapore and Hong Kong. Since the probability ($p = 0.0055$) of the two-tail z-test which is smaller than Alpha (0.05). Therefore, we reject the null hypothesis that there is no significant difference in the means of each sample.

This result in the fact that is possible to say there is a significant difference between HK and Singapore when there is a demand for high-level purchasing skills (such as Computer Literacy MS office, PSM job experience and so forth) in Hong Kong. The observed value on the two skills “*Building relations/ Networking skills*” and “*Motivative Inspiring others*” can be considered relatively small demand in Singapore.

Table 4. 1 Two sample z-test between Singapore and Hong Kong

| SP<HK | SP (n=100) | HK(n=100) |
|--------------------------------------|------------|-----------|
| Basic & BSc or MSc Degree in PSM | 4 | 16 |
| Building relations/Networking Skills | 0 | 16 |
| Computer Literacy MS Office (Excel) | 38 | 60 |
| Foreign Language Proficiency English | 20 | 79 |
| Language Proficiency Mandarin | 11 | 70 |
| Motivative Inspiring Others | 1 | 16 |
| PSM Job Experience | 51 | 85 |
| Sense of Responsibility | 4 | 15 |
| Sole- Responsible/Independency | 13 | 30 |
| Talent for Organisation Skills | 7 | 27 |
| Talent for Planning | 5 | 18 |
| Ability to Handle Stress | 16 | 37 |

z-Test: Two Sample for Means

| | <i>SP (n=100)</i> | <i>HK(n=100)</i> |
|---------------------|-------------------|------------------|
| Mean | 14,16666667 | 39,08333333 |
| Known Variance | 244,5151515 | 722,8106061 |
| Observations | 12 | 12 |
| Hypothesized Mean | 0 | |
| z | -2,77519938 | |
| P(Z<=z) one-tail | 0,002758394 | |
| z Critical one-tail | 1,644853627 | |
| P(Z<=z) two-tail | 0,005516788 | |
| z Critical two-tail | 1,959963985 | |

Table 4.2 reports the z value ($z=-1.88012$) which shows there is a difference ($Z > -1.96$) between the mean of two independent variables, China and Singapore. Since the p-value ($p= 0.06$) of the z-test is larger than Alpha (0.05). Therefore, we fail to reject the null hypothesis.

There are two employability skills are essential for PSM professionals in Singapore. Over 50% of companies required “know-how” in the PSM job postings and 39% of companies also required “*interpersonal skills*”.

The job skills demand on “Knowledge of Contracting Principle” and “Knowledge of Supplier Management” shows laws and rules may not apply to the Chinese business model. Chinese has more experience to deal with uncertainties, and Chinese people are more entrepreneurial oriented. Unemployment is acceptable in China; people are willing to take the risk to start their own business.

Table 4. 2 Two sample z-test between China and Singapore

| CN<SP | CN (n=100) | SP (n=100) |
|------------------------------------|------------|------------|
| Interpersonal Skills | 18 | 39 |
| Knowledge of Contracting Principle | 1 | 18 |
| Knowledge of Supplier Management | 5 | 26 |
| Know-How | 33 | 50 |

z-Test: Two Sample for Means

| | <u>CN (n=100)</u> | <u>SP (n=100)</u> |
|---------------------|-------------------|-------------------|
| Mean | 14,25 | 33,25 |
| Known Variance | 208,9166667 | 199,5833333 |
| Observations | 4 | 4 |
| Hypothesized Mean | 0 | |
| z | -1,88012864 | |
| P(Z<=z) one-tail | 0,030045274 | |
| z Critical one-tail | 1,644853627 | |
| P(Z<=z) two-tail | 0,060090547 | |
| z Critical two-tail | 1,959963985 | |

The implication of the outcome in table 4.3 shows that PSM job in China is relatively high on the demand of hard skills, such as multiple language skills, higher education in PSM and product knowledge.

Table 4.3 reports z value ($z = 2.76587$) which indicates there is no difference ($Z \leq -1.96$) between the mean of two independent populations, China and Singapore. Since the probability ($p = 0.0057$) of the two-tail z-test which is smaller than Alpha (0.05). Therefore, we reject the null hypothesis that there is no significant difference in the means of each sample.

The networking skills are highly valued in China. Chinese people think English is a useful skill for developing their business and network. Since China has a low score on Uncertainty Avoidance, the companies in China are expected candidate are open-minded and flexible on a complex problem.

Table 4. 3 Two sample z-test between China and Singapore

| <u>CN>SP</u> | <u>CN (n=100)</u> | <u>SP (n=100)</u> |
|--------------------------------------|-------------------|-------------------|
| Basic & BSc or MSc Degree in PSM | 17 | 4 |
| Building relations/Networking Skills | 27 | 0 |
| Flexibility/Flexible Thinking | 15 | 2 |
| Foreign Language Proficiency English | 71 | 20 |
| Multilanguage Knowledge | 7 | 1 |
| Language Proficiency Mandarin | 27 | 11 |
| Motivative Inspiring Others | 17 | 1 |

| | | |
|-------------------|----|---|
| Product Knowledge | 24 | 4 |
|-------------------|----|---|

z-Test: Two Sample for Means

| | <i>CN (n=100)</i> | <i>SP (n=100)</i> |
|---------------------|-------------------|-------------------|
| Mean | 25,625 | 5,375 |
| Known Variance | 381,9821429 | 46,83928571 |
| Observations | 8 | 8 |
| Hypothesized Mean | 0 | |
| z | 2,765870112 | |
| P(Z<=z) one-tail | 0,002838557 | |
| z Critical one-tail | 1,644853627 | |
| P(Z<=z) two-tail | 0,005677114 | |
| z Critical two-tail | 1,959963985 | |

Table 4.4 reports the z value ($z = -3.15027$) which indicates there is no difference ($Z \leq -1.96$) between the mean of two independent populations, China and Hong Kong. Since the probability ($p=0.001$) of the two-tail z-test which is smaller than Alpha (0.05). Therefore, we reject the null hypothesis that there is no significant difference in the means of each sample.

Hong Kong is showing that the PSM job experience is an essential skill for professionals working there. Also, there is a demand for specific competence on computer application. Moreover, the knowledge of Mandarin is highlighted in comparison to the other six skills in Hong Kong.

Table 4. 4 Two sample z-test between China and Hong Kong

| <u>CN<HK</u> | <u><i>CN (n=100)</i></u> | <u><i>HK (n=100)</i></u> |
|-------------------------------------|--------------------------|--------------------------|
| Language Proficiency Cantonese | 2 | 38 |
| Computer Literacy MS Office (Excel) | 31 | 60 |
| Interpersonal Skills | 18 | 39 |
| Language Proficiency Mandarin | 27 | 70 |
| Proactive/Taking Initiative | 16 | 34 |
| PSM Job Experience | 51 | 85 |
| Sole- Responsible/Independency | 14 | 30 |
| Talent for Organisation Skills | 12 | 27 |
| Ability to Handle Stress | 17 | 37 |

z-Test: Two Sample for Means

| | <i>CN (n=100)</i> | <i>HK (n=100)</i> |
|---------------------|-------------------|-------------------|
| Mean | 20,88888889 | 46,66666667 |
| Known Variance | 197,1111111 | 405,5 |
| Observations | 9 | 9 |
| Hypothesized Mean | 0 | |
| z | -3,15027279 | |
| P(Z<=z) one-tail | 0,00081559 | |
| z Critical one-tail | 1,644853627 | |
| P(Z<=z) two-tail | 0,001631181 | |
| z Critical two-tail | 1,959963985 | |

4.3 Similarities and differences between the Confucian Chinese societies' datasets and the European datasets across multiple measures

Table 4. 5 Common grounds – general requirements for European and Confucian Chinese Society purchasers

Common grounds in European and Chinese societies

| | EU (n = 300) | CN (n=300) | z-value |
|---|--------------|------------|---------|
| 1 Negotiation Ability | 140 | 120 | 1.6477 |
| 2 Being a Team Player | 106 | 98 | 0.6894 |
| 3 Expert Knowledge | 66 | 49 | 1.7632 |
| 4 Having BAsC/BSc/MSc Technical study | 64 | 83 | -1.8035 |
| 5 Proactive/Taking Initiative | 59 | 73 | -1.3797 |
| 6 Flexibility/Willingness to Travel | 57 | 48 | 0.9669 |
| 7 Ability to Handle Stress/Stress Avoidance | 55 | 70 | -1.5078 |
| 8 Accuracy/Precision | 54 | 47 | 0.7637 |
| 9 Result-orientated | 53 | 57 | -0.4220 |
| 10 Talent for organisation skills | 48 | 46 | 0.2246 |
| 11 Sole-Responsible/Independency | 47 | 57 | -1.0784 |
| 12 Sense of Responsibility | 45 | 31 | 1.7184 |
| 13 Trustworthiness/Honesty/Reliability | 39 | 26 | 1.7075 |
| 14 Computer Literacy towards ERP systems | 36 | 24 | 1.6329 |
| 15 Proceed in a systematic-methodical manner | 26 | 37 | -1.4649 |
| 16 Strategic Thinking | 25 | 37 | -1.6094 |
| 17 Will to learn/Learning Ability/Curious Mindset | 19 | 19 | 0.0000 |
| 18 Innovation Propensity/Innovative | 14 | 12 | 0.4010 |

| | | | |
|--------------------------------|----|----|---------|
| 19 Stakeholder Management | 10 | 17 | -1.3785 |
| 20 Change Management Knowledge | 9 | 8 | 0.2460 |

To find out whether or not there are commonalities of a cultural group, a z-test was conducted. Table 4.5 shows the general PSM skill requirements in the two different cultural group; the most demand everyday skills are listed in the table. The result is based on the z-score which used to compare two population where the size of the population is more significant than 30, here European datasets (n=300) and Chinese datasets (n=300). There are 20 purchasing skills included in table 4.5 with an absolute value of z-score which is less than 1.96. The z-score which indicate that there is no significant difference between European and Confucian Chinese societies; the 20 purchasing skills shown in the table above are both critically demand by employers in two distinct cultural groups.

As is observed in this table, there is the similar demand for result-oriented skill between Confucian Chinese society and European ones. The long-term orientated value is described as the main characteristic of Confucian dynamism, which explained people from the long-term orientated society are more goal-focused traits in their work and life. However, the table 4.5 shows that both companies from two distinct cultural groups are seeking professionals who are more results-focused.

As observed in this table, highly skills professional is most desired in the two cultural groups. The skill requirement “*Strategic Thinking*” and “*Will to learn/Learning Ability/Curious Mindset*” indicate that professionals need to be able to challenge the specific thought pattern, and changes may help individual seize new opportunities to approach situations in many ways.

Table 4. 6 Cultural and structural dissimilarities – general requirements for European and Confucian Chinese Society purchasers

Cultural and structural dissimilarities in European and Chinese societies

| | EU (n = 300) | CN (n=300) | z-value |
|--|--------------|------------|---------|
| 1 Communicative Skills | 142 | 202 | 4.9525 |
| 2 Procurement or PSM knowledge | 45 | 187 | 11.9041 |
| 3 Having Industry Knowledge/Experience | 87 | 154 | 5.5795 |
| 4 Computer Literacy MS Office (Excel) | 85 | 129 | -3.7500 |
| 5 Interpersonal Skills | 47 | 96 | 4.6951 |
| 6 Personnel management/Leadership Skills | 41 | 81 | 4.0573 |
| 7 International Mindset and Intercultural | 8 | 36 | -4.3850 |
| 8 Building Relations/Networking Skills | 34 | 67 | 3.6006 |
| 9 Ability to Solve Problems | 42 | 66 | 2.5503 |
| 10 Process Management | 19 | 52 | 4.1709 |
| 11 Foreign Language Proficiency | 241 | 167 | 6.4763 |
| 12 Result-oriented action-taking/Result Driven | 133 | 13 | 11.4170 |
| 13 Energy Drive/Endurance | 117 | 19 | 9.5559 |
| 14 Flexibility/Flexible Thinking | 104 | 19 | 8.5957 |
| 15 Business Knowledge & Experience | 82 | 38 | 4.4907 |
| 16 Legal Knowledge | 57 | 31 | 3.0004 |
| 17 Advising/Persuasive/Consultancy Skills | 51 | 23 | 3.4764 |
| 18 Multidisciplinary/Knowledge of Multiple | 37 | 16 | 3.0211 |
| 19 Creative Talent/Creativity | 32 | 7 | 4.1400 |
| 20 Holistic Thinking/Having Overview | 27 | 0 | 5.3172 |

In order to compare the different demands on the purchasing skills between two cultural groups. The results presented in numerical order. However, this does not represent “Communicative skills” are higher demand than “*Foreign Language Proficiency*” in the European and Confucian Chinese societies, respectively. Because the demand for each purchasing skills has different frequencies, and some are relatively rare. Therefore, there are only 20 purchasing skills included in table 4.6 with an absolute value of z-score which is higher than 1.96.

As is observed in table 4.6, the two most purchasing skills with low frequency are “*Creative Talent/Creativity*” and “*Holistic Thinking/Having Overview*” in the cultural group of Confucian

Chinese Societies. It means these two purchasing skills are uncommon to represent job requirements of purchasing and supply management professionals in Confucian Chinese societies.

Summary of the research findings

There are three methods of data analysis were conducted in this chapter, the study involved three countries from the Confucian Chinese societies, chosen to collect and analyse data from online purchasing and supply management job postings. An initial population size of over 300 online job advertisements from the three different countries regarding China, Hong Kong and Singapore. Moreover, the Confucian Chinese societies' dataset profile made a comparison to the European dataset, which concluded the 20 primary significant distinct purchasing skills and 20 most common job skill requirement in purchasing and supply management setting. The results show in table 4.5 and table 4.6, respectively.

In the study of the Confucian Chinese societies, ANOVA test provides an overview of the variables. There are 33 personal competencies are in common, and 28 skills which found there is a statistical difference. The variables have provided critical insights into the research, which generalise the new output to answer the research questions and examine the hypotheses testing. There are evidence show employers construct the job advisements with specifying all job skills requirements in the PSM job advisements. However, the results of this research do not show support that there is a correlation between cultural factors and purchasing skills. At this point, it is necessary to indicate the measurements used ($p > 0.05$) to test the null hypothesis, which there is only one strong evidence against the null hypothesis. Other comparisons of the cultural groups are failed to reject the null hypothesis.

The z-test (critical value is $z = 1.96$) gives an idea of how to interpret our findings into the discussion. Although some variables did not show enough values as we assumed, the result can help us to understand if purchasing skills have differences between two distinct cultural values. In other words, if the cultural factor has a positive impact on the PSM job skills.

5 Discussion and conclusion: the impact of globalisation affects purchasers to assimilate to a different culture necessarily

In the purchasing and supply management (PSM) expertise, the knowledge and skills that employees need for a specific job or occupation are significantly different from each online PSM job advisements. Commonly, there are three foundational job skills which required by employers in the job postings (such as a degree in higher education, communication skill and relevant working experience), and for the high skilled purchaser that need have knowledge on all aspects of competences for their job position. Employers such as Amazon, Apple and other multinational corporations all given a job description for all the details which shown companies expect to employ the most qualified candidates for the job vacancy.

In order to explain the dissimilarity in purchasing skill needs between European and Asian companies, researchers chose a particularly representative Asian cultural cluster as the research object. This cultural cluster with strong cultural attributes is called Confucian Chinese societies, and the researchers chose three countries with obvious commonality from Confucian Chinese societies, namely China, Hong Kong and Singapore. Because these three countries have invariably received the influence of Han culture to varying degrees, and interestingly, Hong Kong and Singapore have been profoundly influenced by European culture in the last century.

In conclusion, it deserves to study and explore whether there are many similarities among the three countries as three countries in the Confucian Chinese societies. Alternatively, because of the influence of western culture on Hong Kong and Singapore, Hong Kong and Singapore may show more dissimilarities with China, and there is more interoperability with the European cultural clusters represented by Austria, Belgium and the Netherlands.

However, the results show the different aspect of cultural values has an impact on purchasing skills. Although we mainly focus on the employability skill and competency related to the purchasing and supply management expertise. However, we found out current general skills structure and needs of the business- to -employee occupation are highly similar and close to the PSM professional skill framework we are studying. Therefore, we can infer that the professional skills needed for purchasing and supply management industry generally reflect the ecological environment in the professional market at this stage. In other words, adroit PSM professionals will be able to develop their skill sets in association with different cultural context.

5.1 The similarities and culturally and structurally differences among the three Confucian Chinese societies in job requirements in the online PSM job advertisement

The following sections answer the first research questions: *What are the similarities and culturally and structurally explained differences among the three Confucian Asian countries in job requirements in the online PSM job advertisement?*

In the previous chapter, it found that communication skills are at the forefront of all employability skills, which shows that useful communication skills are critical for PSM professionals for success. There are two communication forms in the current organisation, namely internal communication and external communication. Internal communication takes place in the active contact with the members of the working team of the organisation itself. Consequently, the group or individual work results will adequately transmit to the superior. However, dealing with internal communication is not sufficient. Purchasing and supply chain practitioners are also required to qualify at bargaining with suppliers or buyers. PSM professionals who are the ability to communicate information in an appropriate and accuracy form will benefit variously, and thus communication skills become the most significant skill in the PSM competencies.

The statistical results of recruitment information in China and Hong Kong, it shows that there are specific language requirements for the corresponding employees in the PSM industry, which reflects in the hard necessities of the foreign language ability of the candidates. Over three decades ago, China had advocated opening up its market and attracting a substantial amount of foreign capital to direct investment in China and develop many businesses in the diversity of industries. The nation has shifted from a highly centralised planned economic system to a dynamic market economy system, trading between Chinese companies and foreign companies have increased substantially. Therefore, concerning a better understanding between the two parties are vital, there is a definite need for foreign language skills in the industries.

5.1.1 Analytical thinking influences problem-solving capabilities

From a theoretical perspective, the study suggests the thinking pattern of Asian countries, which more long-term oriented tend to be more synthetic thinking.⁸⁰ Synthetic thinking mainly refers to the way of thinking that is accustomed to or tends to unite the various parts of the object as a whole and combines its various attributes and features to understand. For example, the collectivistic society emphasis the whole and induction in their daily activities. In contrast, analytical thinking is preferable to follow the step-by-step approach to process complex problems in finding solutions. Hofstede identified two thinking styles between different cultural groups, Confucian Chinese Societies and European ones, and he added: “masculine cultures tend to have better analytical skills.”⁸¹ There is evidence shown in figure 4.1; there are 126 companies from Confucian Chinese societies require people who can solve problems quickly and effectively at their job. The high demand for analytical thinking skill could be explained as; companies may notice people who have different thinking styles are difficult to work together. Analytical thinking is an intangible skill that difficult to learn in the short term. The different thinking styles at the workplace, the chance is increased that lack of understanding and poor performance in the teamwork. In other words, people need to be more open-minded and think outside the box to able to collaborate with other employees at the workplace.

5.1.2 An explanation of low score index of Singapore on the Uncertainty avoidance dimension

As noticed in the previous chapter, there is a high demand of four types of purchasing skills in Singapore, which are “*Knowledge of Contracting Principle*” “*Expert Knowledge*”, “*Know-How*” and “*Process management*”. These four competence requirements are profoundly highlighted on an average of 30% of job advisements, and these four requirements have low demand in the other two countries, China and Hong Kong respectively. In Singapore, sustained effort over the years has shaped a well-functioning system of pre-employment training adapted to the country’s needs.⁸² The high index shown on the power distance explained that people in Singapore respect higher authority, compared to countries have a low score on the power distance. It reflects on the skill “*Expert Knowledge*” and “*Knowledge of Contracting Principle*”, people are well trained there and able to apply professional knowledge in the business. The law system in

⁸⁰ See Hofstede (1991), p. 250.

⁸¹ See G. Hofstede (1991), p. 165.

⁸² See S. K. Lee (2008), p. 44.

Singapore are well constructed, many rules and principles need to be followed while doing business there.⁸³

However, figure 2.1 indicates Singapore is significantly low on the Hofstede's uncertainty avoidance in comparison to the other five countries in this study. It indicates Singapore are willing to take a risk in a particular context. In other words, a low uncertainty avoidance score means people from the low uncertainty avoidance think that is agiler compared to countries with a high score.

Even so, our result has a different perspective view on this cultural aspect. The current data displayed in table 4.3 indicates in this specific context, companies have a strict procedure on processing their business in order to have fewer disruptions, which operates the business with different parties. In the meanwhile, companies have a supposition that professionals have a rational and practical attitude of understanding on institutional culture.

5.1.3 The root of business culture in China

China values "*Guanxi*" more than Hong Kong, because they are more long-term oriented (as seen in figure 2.1), China has a score of 87, and Hong Kong scores 61 in Hofstede's cultural dimension. The key concept of "*guanxi*" in Chinese business model is by now known worldwide; it refers to personal connections.⁸⁴ The frequency of demand on the job postings also approves the importance of having skills in building a personal network (this difference is available in table 4.3).

The Chinese business model is more based on trust which is building a relationship for business purposes.⁸⁵ The foreign companies are unable to build personal connections with higher authorities in China.⁸⁶ Many foreign companies use a false business strategy in building a business relationship in China between a company and authorities; it is one of the main reasons that many foreign companies dropped out of the market. "Social and economic network relationships (*Guanxi*) are highly valued and tend to be based on personal friendship and trust rather than contractual relationship."⁸⁷ China is recognised to have a significant power distance,

⁸³ See Shanmugam (2012), p. 360.

⁸⁴ See G. Hofstede (1991), p. 246.

⁸⁵ See D. Y. Lee and Dawes (2005), p. 32.

⁸⁶ See Michailova and Worm (2003), p. 512.

⁸⁷ See Yan and Sorenson (2006), p. 239.

and therefore, in the Chinese business culture building, a strong relationship with a supervisor can help to reach specific goals more efficiently.

Confucianism dramatically influences Chinese culture. Thus there is an excellent emphasis on group identity and long-term relationship, and “*Guanxi*” is believed to be long-lived. On the other hand, Hong Kong has had more influence from the western culture since the country is a former colony of the British Empire. As a consequence, the Confucian beliefs might not be as strongly embedded. Moreover, therefore, there is not as much importance on building relationships in a certain context.

Summary of the common grounds and distinctions in the Confucian Chinese societies

In this paragraph, it became apparent that the skill for effective internal communication alone is not enough to guarantee the success of PSM professionals. Purchasing and supply chain practitioners should be capable of bargaining with suppliers or buyers to achieve the most cost-effective agreements. In combination with excellent communication skills, this will allow the PSM professionals to achieve the favourable results.

Another skill which is gaining more importance and attention is the mastery of understanding languages in the targeted market. As the growth of trading between local and foreign companies in the current business world, a better understanding between the two parties is vital, and a definite need for foreign language skills has increased as well. This is reflected in the language requirements for employees in the PSM expertise.

A significant number of companies for Confucian Chinese societies, in addition to the previously mentioned skills, also seek for employees who can solve problems quickly and effectively. It is sought after to reach unity in the thinking styles at the workplace, through open-mindedness and out of the box thinking, to create understanding and increased performance amongst members of a team.

Very distinct from China and Hong Kong, on the “*Knowledge of Contracting Principle*”, “*Expert Knowledge*”, “*Know-How*” and “*Process management*” skills, was Singapore, as these four competencies were highly required in the job market. The demand for “*Knowledge of Contracting Principle*” and “*Expert Knowledge*” is reflected in the law system and its score

on uncertainty avoidance. Even though willing to take a risk in certain circumstances, this is not the case while conducting business in Singapore.

Lastly, it became clear that when dealing with China and Hong Kong, a rational and practical of understanding “Guanxi” is of greater importance for success in China. It helps with reaching the appropriate authorities in the social network efficiently.

5.2 The common qualifications in job requirements in the online PSM job advertisement between the European and Confucian Chinese societies

The following sections answer the research question: “*What are the common qualifications in job requirements in the online PSM job advertisement between Europe and Confucian Chinese societies?*”

Moreover, the hypotheses are shown below

Hypothesis 3a: For countries from the “Confucian Chinese societies” with relatively higher score on long-term orientation, requirements in PSM online job advertisements are focused on PSM professionals who have strong negotiation skills.

Hypothesis 3b: Due to the similarities in the dimension of long term orientation, three European countries which score equally high on long-term orientation, requirements in PSM online job advertisements are focused on PSM professionals who have strong negotiation skills.

5.2.1 Being a team player can improve team performance

Hofstede argues that members on average hold more collectivist values; they also on average hold fewer individualist values.⁸⁸ As shown in figure 2.1, the results show the Confucian Chinese societies are more correlated with collectivism than with individualism. In the European cultural group, only Austria characterised as intermedium collectivism. Which other two members of the European cultural group have strongly correlated with individualism. However, our observation indicates that “*Being a team player*” is an ordinary crucial personal competence, which shows in both the European and the Chinese job advertisements, with 47% and 40%,

⁸⁸ See G. Hofstede (1991), p. 102.

displayed in table 4.5 respectively. From the collectivistic perspective, while being a team player is more critical and more obligated to the employee in the organisation, the employer will more value people with a collectivistic identity, and collectivistic employees are more likely to engage in teamwork and incorporate other members. In the individualistic society, people are keen to prioritise their interests over group works.

However, individualistic employees are profoundly influenced by organisational culture and do understand that teamwork is essential for the success in management practice. Top management realises that the higher skilled employees, trained in purchasing and supply management, are more interactive while working in a team and place greater emphasis on research and negotiations. As a result, leading to more cooperative relationships with suppliers.⁸⁹ In Europe, although individuals are more independent and self-contained, teamwork is considered as something that will bring forth a result by having discussions and not only by following the tasks given by superiors. Such as is often the case in the high-power distance society.

5.2.2 Negotiation ability is the key to foster a business relationship

An understanding of Chinese culture and the ability to work with it in the business practice is meaningful. Compared to the other five countries, China is the latest country on the progress on urbanisation, and the PSM professionals need to deal with the uncertainty in the local market resulting from the conflicts between the state government and big corporations.⁹⁰

Table 4.5 shows us that negotiation ability is the most sought-after skill, both in Confucian Chinese societies and in the European ones. Although the negotiation ability is essential in both, the negotiation process will vary and influenced by the culture. Active intercultural negotiations demanded insight into the range of cultural values to be expected among partners from other countries and compared against the negotiators' own culturally determined values.⁹¹

With an ongoing negotiation, long-term oriented cultures will be more willing to sacrifice, compromise, and have more perseverance, as long as it will contribute to achieving the desired goal. As long-term oriented traders cannot take a risk of unintentionally reselling low-quality

⁸⁹ See Pearson and Gritzmacher (1990), p. 93.

⁹⁰ See Chaolin, Liya, and Cook (2012), p. 105.

⁹¹ See G. Hofstede (1991), p. 400.

products for high quality products.⁹² In contrast, short-term oriented traders would be more distrusting of the opponents with strange behaviour due to the higher uncertainty avoidance. However, the negotiation ability is an essential skill in the Chinese and European societies because, in today's globalised world, it is essential to have an insight in into these differences in the negotiation process.

There is evidence that

Hypothesis 3a is supported: For countries from the “Confucian Chinese societies” with relatively higher score on long-term orientation, requirements in PSM online job advertisements emphasise strong negotiation skills in order to achieve goals in the negotiation process.

Hypothesis 3b is supported: For countries from the three European countries which score equally high on long-term orientation, requirements in PSM online job advertisements emphasise strong negotiation skills in order to gain a good result in the negotiation process.

5.2.3 Proactiveness and Independence

The study shows “Long-term orientation and uncertainty avoidance positively influence proactive behaviour at the individual level.”⁹³ A proactive workforce is widely viewed as essential in gaining a competitive advantage.⁹⁴ Confucian dynamism labels work ethic, self-discipline, and loyalty as critical values in the society.⁹⁵ In the Confucius Chinese societies, proactive-individuals tend to be hard-working. As observed in table 4.5, the two skills “*Proactive/Taking Initiative*” and “*Sole-Responsible/Independence*”, which usually would be associated with the more individualistic western countries, interestingly there is a higher demand for the skills “*Proactive/Taking Initiative*” and “*Sole-Responsible/Independence*” in the Confucius Chinese societies’ job advertisements. Individuals with these traits are more consistent in their working process and more goal committed.

⁹² See G. J. Hofstede et al. (2008), p. 5.

⁹³ See G. Hofstede (1991), p. 70.

⁹⁴ See D. Carson, S. Baker, and A. Lanier (2014), p. 349.

⁹⁵ See G. Hofstede (1991), p. 147.

The results in the table implied there is a positive association between European and Confucian Chinese societies on the skill requirement “*Proactive/Taking Initiative*”. Although it is common practice for members of an organisation in Confucian Chinese societies to follow the superior’s decisions rather than be expected to reach a goal independently. However, workers with proactive personality at the organisation could show their occupational commitment to their superior.

Summary: the role of personal competency in different cultural setting

Negotiation ability is one of the most desired competency, both in the Confucian Chinese societies and the European societies.

When negotiating, long-term oriented cultures such as China will be more willing to sacrifice, compromise, and have more perseverance, as long it will contribute to achieving the desired goal. In contrast, European cultures would be more distrusting of the opponents with strange behaviour due to the higher uncertainty avoidance. The negotiation ability is an essential skill in the Chinese and European societies because, in today's globalised world, it is essential to have an insight in into these differences in the negotiation process.

Interestingly, “*Proactive/Taking Initiative*” and “*Sole-Responsible/Independency*”, which usually would be associated with the more individualistic western countries, are in higher demand in Confucian Chinese societies’ job advertisements.

5.3 The distinctions in job requirements in the online PSM job advertisement between the European similarities and the Confucian Chinese societies

This paragraph answers research question 3:” *What are the distinctions in job requirements in the online PSM job advertisement between Europe and Confucian Chinese societies?*”

The proposed hypotheses also will be discussed in this paragraph:

Hypothesis 1a: For countries from the “Confucian Chinese societies” with relatively large power distance levels, requirements in PSM online job advertisements are focused on PSM professionals who have strong leadership skills.

Hypothesis 1b: For countries from the European countries with relatively small power distance levels, requirements in PSM online job advertisements are less focused on PSM professionals who have strong leadership skills.

Hypothesis 2a: For countries from the “Confucian Chinese societies” with relatively large power distance levels, requirements in PSM online job advertisements are focused on PSM professionals who have strong communication skills.

Hypothesis 2b: For countries from the European countries with relatively small power distance levels, requirements in PSM online job advertisements are less focused on PSM professionals who have strong communication skills.

5.3.1 The role of cross-cultural communication skills

The results of this study offer exciting insights on the job skills between the European and the Confucian Chinese Society. For example, the “*Communicative skills*” has been highly valued by the companies from Confucian Chinese Society. On average 67% of job advertisements required that prospective employees can transmit and receive messages. However, the demand of people who master useful communication skills in the European job advisements is 20% point lower, with an average of 47%. The high demand for communication skills in the Confucian Chinese societies also reflects that a company wants the PSM employees to understand intercultural language.

Different cultures will have different styles and ways of communicating and sending across a message. This includes verbal communication as well as non-verbal communication, such as implied cues in the language itself. In order to identify and appropriately react to these cues knowledge of the culture and the historical background is necessary. For example, in Asian countries it is common to communicate a message implicitly, saying a message without saying it directly. The receiver of the message will need to know that in this culture this is common, interpret it and react appropriately.

The characteristics of the Confucius Chinese societies show that there is more tolerance toward unequal distribution of power.⁹⁶ Less powerful members of the organisation follow a top-down approach. The More powerful members will communicate in an authoritative way to the lower-level members of the organisation. Subordinates and supervisors, while working in a team, because of power distance will have miscommunications. However, as collectivistic countries, considerable effort is put into successfully integrating with others and within avoiding conflict. In western societies, on the other hand, working in a team will lead to more conflict. Members of the team will share views and opinions, but because this is communicated directly, disagreements will emerge.

However, when there is a miscommunication, it is incorrectly attributed to the cultural difference. Communication is not about the managing cultural difference but managing change in a globalised multi-cultural business world and the workforces of multi-cultural minds.⁹⁷ The cultural difference does not determine the quality of the communication. It is possible to prepare for a different communication style beforehand to avoid miscommunication. For example, before a business meeting, the culture accepted etiquettes and the position of the meeting attendees could be researched. Consequently, the behaviour and presentation can be adapted to the situation to ensure communication is active.

There is evidence that

Hypothesis 2a is supported: For countries from the “Chinese societies” with relatively large power distance levels, requirements in PSM online job advertisements emphasise strong communication skills to ensure communication be effective.

Hypothesis 2b is supported: For countries from the European countries with relatively small power distance levels, requirements in PSM online job advertisements emphasise strong communication skills to share ideas within avoiding conflicts.

⁹⁶ See McDonald (2012), p. 482.

⁹⁷ See Fang (2012), p. 26.

5.3.2 Multilanguage skill is the tool to foster a business relationship in a long run

Knowledge of language skill in Mandarin, Cantonese or English can help employees agree on a common language and process work more transparently and productively while doing business in Asia. One of the main reasons for the cultural barrier is that individuals from different cultural backgrounds cannot put common interpretation to explain the views of all parties, thus drawing a series of cognitive differences.

Confucianism Dynamism is correlated with the rise of the economy in Asia.⁹⁸ For example, in China, it has a high number of small entrepreneurs doing business with foreign buyers worldwide. As one of the critical aspects of Confucianism is building a long-term relationship. The entrepreneurs will strive to build a relationship with the foreign buyer, and common language is of great importance. However because in some cases there is no common language, there is a high chance the relationship will not last in the long-term. Religion, language, and other symbolic group boundaries are important to humans, and we spend much of our time establishing, negotiating, and changing them.⁹⁹ Therefore, language skill is vital for effective communication and eventually will lead to a relationship. As observed in table 4.4, PSM job advertisements in Hong Kong require that potential PSM practitioners be excellent in speaking Cantonese, which is a regional dialect in China.

5.3.3 Confucianism impact on Chinese leadership skills

With the integration of Hofstede's cultural dimensions, the characteristic of Chinese leadership is closely associated with long-term orientation and collectivism. These two characteristics can be explained as the Chinese spend more time on decision making rather than action taken. Furthermore, the Chinese decision-making is based on ensuring that all parties can be included and the result of the decision balances advantages against disadvantages. This finding also reflects on this study, leadership skills have been taken into account in the Confucian Chinese job market (see Table 4.6). "Confucian values remain a major cultural force underlying leadership practices in Chinese as well as other East Asian societies."¹⁰⁰ Following a Confucian perspective, the Confucian work dynamism emphasis the role of leader needs to send a long-

⁹⁸ See G. Hofstede and Bond (1988), p. 12.

⁹⁹ See G. Hofstede (1991), p. 15.

¹⁰⁰ See Yang, Peng, and Lee (2008), p. 308.

term goal has to share more responsibility in the teamwork. Employees with a better understanding of the cultural values and features of Chinese leadership in Confucian Chinese society are more effective and successful in building relationships with their co-workers and customers.

There is evidence that

Hypothesis 1a is supported: For countries from the “Confucian Chinese societies” with relatively large power distance levels, requirements in PSM online job advertisements emphasise strong leadership skills in networking and building relationship with different parties.

Hypothesis 1b is supported: For countries from the European countries with relatively small power distance levels, requirements in PSM online job advertisements emphasis strong leadership skills enable to engage more with employees and peers to conduct teamwork effectively.

Summary: cultural value reflects different skills development

One of the critical aspects in Confucianism is building a long-term relationship and “Communicative skills” has been highly valued by the companies from Confucian Chinese Society, more so than by the European counterparts. The high demand for communication skills in the Confucian Chinese societies also reflects that companies strive for PSM employees that understand intercultural language. It is vital to understand that in the Confucian Chinese societies communication between superior and subordinate is exchanged differently. The more powerful members will communicate in an authoritative way to the lower-level members of the organisation. Subordinates and supervisors, while working in a team, could have miscommunications due to the power distance. However, because of their collectivistic values, considerable effort is put into successfully integrating with others and within avoiding conflict.

In western societies, on the other hand, working in a team will lead to more conflict. Members of the team will share views and opinions, but because this is communicated directly, negative emotions will not build up over time and build up to become detrimental to the effectiveness of the team.

However, the quality of the communication can be improved by preparing for different communication styles in advance. Individuals from different cultural backgrounds can prepare to put common interpretation to explain the views of all parties. Therefore, employees with a better understanding of the cultural values and features of Chinese leadership in Confucian Chinese society are more effective and successful in building relationships with their co-workers and customers.

5.4 Managerial implication

The results of this study provide evidence that there is a positive impact on cross-cultural skills in the purchasing and supply management setting and can serve as a guideline and true cross-cultural skill training resource for future researchers, practitioners or human resource managers. Primarily, the aim was to look for ways in which human resource managers and organisations can better understand the changing role of developing purchasing skills in order to maximise the efficiency and effectiveness of the PSM professional.

Also, the large-scale dataset could benefit other researchers who are conducting further study on this topic. The findings have given a detailed understanding of job requirements and applicants' capabilities, and in particular, it gave insight into the cross-cultural differences between PSM job advertisements in Europe and Confucian Chinese Societies.

As noticed in the previous chapter, the research findings of this study shown purchasing skills has different frequencies in two distinct cultural groups. For example, skills such as “Flexible Thinking” and “Result Driven” are highly demanded in the European countries. In contrast, skills such as “Procurement knowledge” and “Industry Knowledge” are both top sought-after purchasing skills in the Asian countries. These distinctions indicate companies in the different business markets are value skills are culturally different in the industries and markets. This require companies to understand it is possible to recruit highly skilled candidate from the job market. However, companies may need to more focus on the internal training in order to gain more competitive edge from their own employees.

Practitioners will gain understanding and thus work more efficiently and effectively with their co-workers and customers. In practice, companies could apply the results of the study to provide a practical skills training programme for its employees. This could be in the form of cross-cultural training by a cross-cultural expert who has extensive knowledge of the cultural study.

There are a variety of benefits resulting from cross-cultural training to enhance cross-cultural understanding and expertise.

Leader of the week – weekly leadership training

The weekly leadership training is mostly directed towards and would be most effective for the multinational companies, which employ personnel from a range of cultural backgrounds. Shortly summarised, the training entails that each week a small team project is led by a different employee of the team with a different cultural background. The objective is to share ideas and knowledge and therewith gain understanding of how to find a midway between two cultures.

Each member involved in the project can assess the leader of a certain week and provide feedback. Team members are encouraged to share personal and professional experience related to their cultural background, values and the related topic. Furthermore, team members are also stimulated to suggest alternatives to how the leader of that week could have managed the situation in a better way.

The sufficient cross-cultural training program offers an opportunity to help people communicate better with other cultural groups. There is also possible benefit business accomplishment for the organisation. Because the knowledge of intercultural sensitivity can assist professional in collaboration with business partners from different cultural aspects. As a result, the advancement of cross-cultural skills can optimise the negotiation process and avoidance of conflict, and consistently deliver high quality and creative solutions to the complicated business situation.

Employees learning skills through experience and recognise the key cultural differences which are likely to be much more comfortable to incorporate different perspectives of culture values of individual and team in a long run. Leadership training offers members are more understand themselves from the peer review, also more likely to study the particular case with a prefer styles of communication.

5.5 Limitation of research

The present research used KODE®X and Hofstede's cultural dimension theory in understating whether cultural values interact with purchasing skills. The research findings for Hofstede's cultural study is a significant reference value for the study of cross-cultural learning and training; the study has been highly influential in many ways. Along with the development of the global economy, more people have the opportunity to learn intercultural through different methods, and diverse cultures are rapidly spreading to different places through different forms. The changes in cultural values apparent time and the ability of people to adapt to a new culture is also stronger. Therefore, the conclusions of Hofstede's study may be considered limited. Although Hofstede continually conducted new cultural study projects and reevaluated some of the scores which rated in his early st late. However, his research is a long-term research project on the cross-cultural study at a multinational corporation in three decades ago. From the secondary resource, there are 61 purchasing skills were concluded in the research. Hofstede's dimension theory cannot help us to determine the scale of skills are sufficient or insufficient. The dimension theory only can indicate there is a factor, which will influence on demand for purchasing skills in the market.

Shortly, there are some limitations to this study, which deserve to be mentioned as the KODE®X competences matrix has been a part of this research. The language restriction of the KODE®X model creates some uncertainties for different grouping skill sets to understand the association between each subject further. As we found there were difficulties in interpreting our raw data into the KODE ®X model, some skills are not well defined in the skill matrix. Therefore, the development of PSM skills and competencies model in a common language for employment or academic purpose is necessary. However, this attempt will be a time-consuming project and needs to be incorporated with different functions, and more academic research on relevance needs to be conducted.

While prepared for this study on a cross-cultural research in purchasing skills, there are insufficient numbers of literatures including "Supply Chain Management: An International Journal", "Journal of Purchasing and Supply Management", "Journal of Supply Chain Management" that we can generalise the ideas and apply on study purchasing skills in cultural context. There are several reasons can be explained here, there is still a discussion about the

difference between purchasing and supply management and supply chain management. Most scientific journals show more interests in the research of the topic of supply chain management”. Therefore, there is not enough theoretical evidence which can support our findings. We are only able to study cross-cultural research on specific job skills in general. Consequently, the lack of knowledge about purchasing skills in cross-cultural context may cause the inconsistency of our findings.

The research work was to carry out a constructive replication of a previous study on the cross-cultural comparison of purchasing skills in European countries. Although the replication can help us to achieve similar results to make a comparison between European and Chinese datasets. However, the method of data analysis and hypothesis testing in the prior study remain confused. Therefore, some results of this study may lack support for the theories which are based on the research methodology that has been conducted in this study.

Although this study showed exciting results on the purchasing skills development and learning, the results are still not enough to make statements. Because it is difficult to assess how representative of the border job information of purchasing skills. The job postings are well-written to help the employer to attract more diverse candidates, in order to increase efficiency in recruitment and the high-value proposition to the job applicants. The listed job requirements on the job posting may not demonstrate occupation-specific skills appropriately. Therefore, this will lead to biased information and data to conduct scientific research on a cross-cultural study in purchasing skills.

6 Conclusion

In this study, we provided a precise understanding of the purchasing skills needs of each country. We used secondary data were collected from online job sites to conduct a comparative analysis of a cross-cultural study on purchasing skills.

This research aimed to examine Hofstede's Cultural Dimension theory and attempt to identify if purchasing skills and competencies are culturally determined. In general, the findings show cultural values cannot have a significant direct impact on the competency development in the purchasing and supply management expertise. However, there are implications show cultural values still is a key factor that has an impact on the employability and competency. The findings support that personal competence and employability development are correlated with the characteristics of different cultural clusters.

Through the study of the Confucian Chinese societies' database, we explained 61 personal competencies that are demanded by the employers in the current PSM job market. Between the range of two databases, we identified a certain amount of dissimilarities and similarities of purchasing skills between the two cultural clusters, Confucian Chinese societies and the European ones, respectively. Based on the evidence available in this study, there are ten key principal purchasing skills which are highly required by employers in the PSM labour market of Confucian Chinese societies.

According to the study of the European and Confucian Chinese database, we examined both datasets and compared 20 similar and dissimilar purchasing skills between two cultural groups respectively. With the integration of Hofstede's Cultural Dimension theory, purchasing professional from the European cultural cluster which has been recognised as more individualistic, liner communicator and has a more formational oriented in the relationship. For example, the Netherlands has a higher level of individualism and a lower level of masculinity compared to the other five countries in this study. This means that Dutch people tend to be high agency and self-contained, compared to people from Confucian Chinese societies. However, while making a comparison between the "*Being a Team Player*" PSM job postings sample in Europe and Confucian Chinese Society, the result indicated a different conclusion. The results of multiple comparison shows this personal competence are equally distributed in each set of three countries. Furthermore, the results of z-test (critical value of 1.96, which we set as alpha

is significant equals 0.025; i.e. alpha 0.05 divided by two groups/countries) suggest that there is no significant difference between Europe and Confucian Chinese Society on the purchasing skills requirements of the job postings.

Although the education provides an opportunity to enhance students's skill sets. However, some of the most important purchasing skills are unlikely simply taught. There is need that companies provide a chance to continuously educate their employee, by organising training workshop,

The idea of professional training is not teach specific skills, is purchasing practitioners and future prospects who pursuing a career in the purchasing and supply management setting, such as analytical skills, negotiation skills or leadership. These skills is needed to build slowly upon a steel frame of advancement of personal competence in purchasing and supply management expertise.

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Appendix 1 – Results of ANOVA test for purchasing skills demand in Confucian Chinese Societies

Table A1. 1 Bonferroni Correction for Post Hoc Analysis in ANOVA of 61 purchasing skills

Multiple Comparisons

| Dependent Variable | (I) Country | (J) Country | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------------------------------|-------------|-------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| Bacc & Bsc or Msc Degree in PSM | Singapore | China | -.130* | .046 | .019 | -.24 | -.02 |
| | | Hong Kong | -.120* | .046 | .034 | -.23 | -.01 |
| Building relations/Networking Skills | Singapore | China | -.270* | .047 | .000 | -.39 | -.15 |
| | | Hong Kong | -.160* | .047 | .004 | -.28 | -.04 |
| Language Proficiency Cantonese | China | Hong Kong | -.360* | .042 | .000 | -.46 | -.26 |
| | | Singapore | .010 | .042 | .972 | -.09 | .11 |
| Capacity Cooperate | China | Hong Kong | .050* | .020 | .041 | .00 | .10 |
| | | Singapore | .040 | .020 | .128 | -.01 | .09 |
| Change Management Knowledge | China | Hong Kong | .060* | .023 | .031 | .00 | .12 |

| | | | | | | | |
|--------------------------------------|-----------|-----------|--------|------|------|------|------|
| | | Singapore | .040 | .023 | .211 | -.02 | .10 |
| Computer Literacy MS Office (Excel) | Hong Kong | China | .290* | .068 | .000 | .12 | .46 |
| | | Singapore | .220* | .068 | .006 | .05 | .39 |
| Creative Talent/Creativity | Hong Kong | China | -.020 | .023 | .677 | -.08 | .04 |
| | | Singapore | -.060* | .023 | .031 | -.12 | .00 |
| Flexibility/Flexible Thinking | China | Hong Kong | .140* | .033 | .000 | .06 | .22 |
| | | Singapore | .130* | .033 | .000 | .05 | .21 |
| Foreign Language Proficiency English | Singapore | China | -.510* | .060 | .000 | -.66 | -.36 |
| | | Hong Kong | -.590* | .060 | .000 | -.74 | -.44 |
| Multilanguage Knowledge | China | Hong Kong | .070* | .022 | .008 | .01 | .13 |
| | | Singapore | .060* | .022 | .030 | .00 | .12 |
| Intercultural Sensitivity | China | Hong Kong | .190* | .045 | .000 | .08 | .30 |
| | | Singapore | .100 | .045 | .090 | -.01 | .21 |
| Interpersonal Skills | China | Hong Kong | -.210* | .065 | .006 | -.37 | -.05 |
| | | Singapore | -.210* | .065 | .006 | -.37 | -.05 |
| Knowledge of Contracting Principle | Singapore | China | .170* | .035 | .000 | .09 | .25 |
| | | Hong Kong | .160* | .035 | .000 | .08 | .24 |

| | | | | | | | |
|----------------------------------|-----------|-----------|--------|------|------|------|------|
| Knowledge of Supplier Management | Singapore | China | .210* | .047 | .000 | .10 | .32 |
| | | Hong Kong | .170* | .047 | .001 | .06 | .28 |
| Expert Knowledge | Hong Kong | China | -.090 | .062 | .354 | -.24 | .06 |
| | | Singapore | -.190* | .062 | .010 | -.34 | -.04 |
| Language Proficiency Mandarin | China | Hong Kong | -.430* | .058 | .000 | -.57 | -.29 |
| | | Singapore | .160* | .058 | .024 | .02 | .30 |
| | Hong Kong | China | .430* | .058 | .000 | .29 | .57 |
| | | Singapore | .590* | .058 | .000 | .45 | .73 |
| Motivative Inspiring Others | Singapore | China | -.160* | .044 | .001 | -.27 | -.05 |
| | | Hong Kong | -.150* | .044 | .003 | -.26 | -.04 |
| Personal Management /Leadership | China | Hong Kong | .170* | .062 | .025 | .02 | .32 |
| | | Singapore | .070 | .062 | .533 | -.08 | .22 |
| Proactive/Taking Initiative | China | Hong Kong | -.180* | .060 | .013 | -.33 | -.03 |
| | | Singapore | -.080 | .060 | .417 | -.23 | .07 |
| Process Management | Singapore | China | .060 | .053 | .526 | -.07 | .19 |
| | | Hong Kong | .170* | .053 | .006 | .04 | .30 |
| Product Knowledge | China | Hong Kong | .180* | .043 | .000 | .07 | .29 |

| | | | | | | | |
|--------------------------------|-----------|-----------|--------|------|------|------|------|
| | | Singapore | .200* | .043 | .000 | .09 | .31 |
| Know-How | China | Hong Kong | .190* | .063 | .012 | .03 | .35 |
| | | Singapore | -.170* | .063 | .028 | -.33 | -.01 |
| PSM Job Experience | Hong Kong | China | .340* | .065 | .000 | .18 | .50 |
| | | Singapore | .340* | .065 | .000 | .18 | .50 |
| Sense of Responsibility | Hong Kong | China | .030 | .043 | .782 | -.08 | .14 |
| | | Singapore | .110* | .043 | .038 | .00 | .22 |
| Sole- Responsible/Independency | Hong Kong | China | .160* | .055 | .015 | .03 | .29 |
| | | Singapore | .170* | .055 | .009 | .04 | .30 |
| Talent for Organisation Skills | Hong Kong | China | .150* | .050 | .011 | .03 | .27 |
| | | Singapore | .200* | .050 | .000 | .08 | .32 |
| Talent for Planning | Hong Kong | China | .050 | .046 | .548 | -.06 | .16 |
| | | Singapore | .130* | .046 | .018 | .02 | .24 |
| Ability to Handle Stress | Hong Kong | China | .200* | .059 | .003 | .06 | .34 |
| | | Singapore | .210* | .059 | .002 | .07 | .35 |

*. The mean difference is significant at the 0.05 level.

Appendix 2 Overview of numbers of purchasing skills required in Confucian Chinese societies

Table A2. 1 Job requirements and its assigned skills in different countries

| | | SP | | HK | | CN |
|---|--|----|---|----|--|----|
| 1 | Procurement or PSM Knowledge | 70 | PSM Job Experience | 85 | Foreign Language Proficiency | 70 |
| 2 | Communicative Skills | 66 | Foreign Language Proficiency | 77 | Communicative Skills | 69 |
| 3 | Having Industry Knowledge/Experience | 60 | Communicative Skills | 67 | Procurement or PSM Knowledge | 60 |
| 4 | PSM Job Experience | 51 | Computer Literacy MS Office (Excel) | 60 | PSM Job Experience | 51 |
| 5 | Analytical Talent | 50 | Procurement or PSM Knowledge | 57 | Having Industry Knowledge/Experience | 45 |
| 6 | Acquisition Skills/Negotiation Ability | 43 | Having Industry Knowledge/Experience | 49 | Acquisition Skills/Negotiation Ability | 39 |
| 7 | Interpersonal Skills | 39 | Interpersonal Skills | 39 | Analytical Talent | 39 |
| 8 | Computer Literacy MS Office (Excel) | 38 | Acquisition Skills/Negotiation Ability | 38 | Personnel management/Leadership Skills | 35 |
| 9 | Being a Team Player | 36 | Ability to Handle Stress/Stress Avoidance | 37 | Being a Team Player | 34 |

| | | | | | | |
|----|--|----|--|----|--|----|
| 10 | Project Management Experience & Know-how | 35 | Analytical Talent | 37 | Having BASc/BSc/MSc ¹ Technical study | 32 |
| 11 | Having BASc/BSc/MSc ¹ Technical study | 34 | Proactive/Taking Initiative | 34 | Computer Literacy MS Office (Excel) | 31 |
| 12 | Personnel management/Leadership Skills | 28 | Sole-Responsible/Independency | 30 | Project Management Experience & Know-how | 28 |
| 13 | Ability to Solve Problems | 28 | Having at least a BASc ¹ degree | 29 | Building Relations/Networking Skills | 27 |
| 14 | Expert Knowledge/Computer Literacy SAP | 27 | Being a Team Player | 28 | Having a BASc/BSc/MSc ¹ in Business study | 25 |
| 15 | Process Management & Knowledge of Processes | 25 | Talent for Organising/Organisational Skills | 27 | Ability to Solve Problems | 24 |
| 16 | Proceed in a systematic-methodical manner | 25 | Having a BASc/BSc/MSc ¹ in Business study | 20 | International Mindset and Intercultural Sensibility | 21 |
| 17 | Proactive/Taking Initiative | 24 | Personnel management/Leadership Skills | 18 | Flexibility/Willingness to Travel | 21 |
| 18 | Building Relations/Networking Skills | 24 | Flexibility/Willingness to Travel | 18 | Having at least a BASc ¹ degree | 21 |

| | | | | | | |
|----|--|----|--|----|---|----|
| 19 | Having a BAsC/BSc/MSc ¹ in Business study | 23 | Accuracy/Precision | 17 | Result-orientated/Pragmatic/Hands-on | 20 |
| 20 | Result-orientated/Pragmatic/Hands-on | 22 | Having BAsC/BSc/MSc ¹ Technical study | 17 | Process Management & Knowledge of Processes | 19 |
| 21 | Foreign Language Proficiency | 20 | Motivative/Inspiring Others | 16 | Calculation Knowledge/Numeral Skills | 19 |
| 22 | BAsC/BSc/MSc ¹ Business <i>or</i> Technical | 20 | BAsC, BSc or MSc degree in PSM | 16 | Interpersonal Skills | 18 |
| 23 | Calculation Knowledge/Numeral Skills | 18 | Building Relations/Networking Skills | 16 | Motivative/Inspiring Others | 17 |
| 24 | Accuracy/Precision | 17 | Sense of Responsibility | 15 | Ability to Handle Stress/Stress Avoidance | 17 |
| 25 | Strategic Thinking | 16 | Result-orientated/Pragmatic/Hands-on | 15 | Strategic Thinking | 16 |
| 26 | Ability to Handle Stress/Stress Avoidance | 16 | Business Knowledge & Experience | 15 | Flexibility/Flexible Thinking | 16 |
| 27 | Knowledge/Computer Literacy (total) | 16 | Ability to Solve Problems | 14 | Expert Knowledge/Computer Literacy SAP | 16 |

| | | | | | | |
|----|---|----|--|----|--|----|
| 28 | Presentation Skills & Talent for Presentations | 13 | Project Management Experience & Know-how | 12 | Business Knowledge & Experience | 16 |
| 29 | Sole-Responsible/Independency | 13 | Devotedness | 11 | Proactive/Taking Initiative | 15 |
| 30 | Technical Knowledge | 13 | Customer-oriented | 11 | Technical Knowledge | 15 |
| 31 | Having at least a BAsc ¹ degree | 13 | Will to learn/Learning Ability/Curious Mindset | 10 | Legal Knowledge | 15 |
| 32 | International Mindset and Intercultural Sensibility | 12 | Knowledge/Computer Literacy (total) | 10 | Trustworthiness/Honesty/Reliability | 14 |
| 33 | Advising/Persuasive/Consultancy Skills | 11 | Energy Drive/Endurance | 9 | BAsc, BSc or MSc degree in PSM | 14 |
| 34 | Legal Knowledge | 11 | Technical Knowledge | 9 | Sole-Responsible/Independency | 14 |
| 35 | Flexibility/Willingness to Travel | 9 | Process Management & Knowledge of Processes | 8 | Accuracy/Precision | 13 |
| 36 | Customer-oriented | 9 | Openness towards Change/Change driven | 8 | Presentation Skills & Talent for Presentations | 13 |
| 37 | Multidisciplinary/Knowledge of Multiple disciplines | 8 | Calculation Knowledge/Numeral Skills | 8 | Sense of Responsibility | 12 |
| 38 | Computer Literacy towards ERP systems | 8 | Trustworthiness/Honesty/Reliability | 7 | Talent for Organising/Organisational Skills | 12 |

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| 39 | Openness towards Change/Change driven | 8 | Computer Literacy towards ERP systems | 7 | Computer Literacy towards ERP systems | 9 |
| 40 | Talent for Organising/Organisational Skills | 7 | Expert Knowledge/Computer Literacy SAP | 6 | Devotedness | 9 |
| 41 | Business Knowledge & Experience | 7 | Multidisciplinary/Knowledge of Multiple disciplines | 5 | Advising/Persuasive/Consultancy Skills | 9 |
| 42 | Capacity to make decisions/Decisiveness | 6 | Strategic Thinking | 5 | Proceed in a systematic-methodical manner | 9 |
| 43 | Stakeholder Management | 6 | Legal Knowledge | 5 | Stakeholder Management | 8 |
| 44 | Energy Drive/Endurance | 6 | Presentation Skills & Talent for Presentations | 4 | Customer-oriented | 8 |
| 45 | Innovation Propensity/Innovative | 6 | Result-orientated action-taking/Result Driven | 3 | Knowledge/Computer Literacy (total) | 8 |
| 46 | Trustworthiness/Honesty/Reliability | 5 | Capacity to make decisions/Decisiveness | 3 | Result-orientated action-taking/Result Driven | 7 |
| 47 | Creative Talent/Creativity | 5 | Stakeholder Management | 3 | Will to learn/Learning Ability/Curious Mindset | 6 |
| 48 | Sense of Responsibility | 4 | International Mindset and Intercultural Sensibility | 3 | Capacity to make decisions/Decisiveness | 6 |
| 49 | Will to learn/Learning Ability/Curious Mindset | 3 | Poise/Assertiveness | 3 | Change Management Knowledge | 6 |

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| 50 | Result-orientated action-taking/Result Driven | 3 | Advising/Persuasive/Consultancy Skills | 3 | Innovation Propensity/Innovative | 5 |
| 51 | BASc, BSc or MSc degree in PSM | 3 | Proceed in a systematic-methodical manner | 3 | Energy Drive/Endurance | 4 |
| 52 | Devotedness | 3 | Diplomacy/Social Manners/Political Sense | 2 | Multidisciplinary/Knowledge of Multiple disciplines | 3 |
| 53 | Diplomacy/Social Manners/Political Sense | 3 | Flexibility/Flexible Thinking | 1 | Poise/Assertiveness | 3 |
| 54 | Change Management Knowledge | 2 | Innovation Propensity/Innovative | 1 | Openness towards Change/Change driven | 3 |
| 55 | Poise/Assertiveness | 2 | BASc/BSc/MSc ¹ Business or Technical | 1 | Diplomacy/Social Manners/Political Sense | 2 |
| 56 | Flexibility/Flexible Thinking | 2 | Having at least a MSc degree | 1 | Creative Talent/Creativity | 2 |
| 57 | Ability to handle Complex Situations | 2 | Ability to handle Complex Situations | 1 | BASc/BSc/MSc ¹ Business or Technical | 2 |
| 58 | Motivative/Inspiring Others | 1 | Holistic Thinking/Having Overview | 0 | Having at least a MSc degree | 1 |
| 59 | Holistic Thinking/Having Overview | 0 | Change Management Knowledge | 0 | Holistic Thinking/Having Overview | 0 |
| 60 | Open Communication/Openness/Accessible | 0 | Creative Talent/Creativity | 0 | Open Communication/Openness/Accessible | 0 |

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| 61 | Having at least a MSc degree | 0 | Open Communication/Openness/Accessible | 0 | Ability to handle Complex Situations | 0 |
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