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Competencies for fresh graduates' success at work: Perspectives of employers

ABSTRACT

Purpose: This paper investigates Hong Kong employers' views on graduate competencies that facilitate new graduates' success in the workplace.

Design/methodology/approach: The methodology involves the use of a 7-point Likert scale and 26-item questionnaire to elicit responses from 260 business employers on the importance of specific competencies contributing to the success of fresh graduates at work.

Findings: The findings indicate that all of the competencies examined are important to a degree. "Ability and willingness to learn", "Teamwork and cooperation", "Hardworking and willingness to take on extra work", "Self-control", and "Analytical thinking" are the five highest-ranking of the competencies measured, although all competencies are clearly necessary for success. Hard and soft skills are rated equally important by employers overall. Recommendations for developing competencies among university students prior to their entry to the workforce are discussed.

Research limitations/implications: This research is constrained to the context of a survey methodology. Therefore it is suggested that qualitative research can be conducted in a practical setting within the context of preparation for discussions with employers in industry. This would offer further research feedback of a more qualitative nature, whilst setting the potential groundwork for practical application to degree programme improvement.

Practical implications: As the competencies are of a practical nature, it is suggested that universities work together with industry to develop workplace-oriented programmes.

Originality/value: This is the first research, to the authors' knowledge, that approaches desirable graduate competencies from the perspective of the skills gap in the context of Hong Kong.

Keywords: competencies; soft skills; hard skills; Hong Kong; employers; fresh graduates

Introduction

Scholars have argued that employers rely on employees to increase their competitiveness as the quality of employee ability and outputs impacts on overall organizational performance outcomes (Deaconu, Osoian, Zaharie and Achim, 2014; Buller and McEvoy, 2012), and have urged organizations to develop strategies that can enhance and exploit the strengths and abilities of the millennial generation (Jerome, Scales, Whithem and Quain, 2014). In an empirical study, Hitt, Bierman, Shimizu and Kochhar (2001) further contended that human capital has a moderating and positive effect on a firm's performance. This supports the idea that acquiring competent people is of paramount importance to organizations. On the other hand, poor recruitment decisions are costly to employers (Newell, 2005) in terms of both monetary and non-monetary aspects. Researchers, such as Promis (2008), have urged organizations to devote careful attention to hiring people with the right competencies. As such, and with the increasing need for knowledge workers, the demand for competent fresh graduates – a key human resource – has grown substantially.

One such labour market with a high demand for knowledge workers can be found in Hong Kong. Hong Kong has an area of just over 1,100 square kilometres and possesses scarce natural resources (Li, 2009). It was ceded to Britain after the Opium War in 1842 and its sovereignty was then reverted back to China on 1 July, 1997. Hong Kong was ranked the third most competitive financial centre in the world according to the 2018 Global Financial Centres Index (Yeandle, 2018) coming in behind London and New York. In terms of global competitiveness, Hong Kong was ranked sixth on the Global Competitiveness Index as published in the Global Competitiveness Report 2017-2018 compiled by the Geneva-based World Economic Forum (Schwab, 2018).

Hong Kong has a population of approximately 7.34 million. The size of the total labour force is about 4 million (Hong Kong Special Administrative Region, 2017b). Shifting from a manufacturing to a knowledge-based economy in 1980s (Li, 2009), 95% of Hong Kong's GDP is comprised of the service industries (Shek, Chung and Leung, 2015). This poses a high demand for a skilful labour force and indicates that the type of skills needed in each sector are plausibly different (Wan, 2011).

In a survey soliciting responses from over 41,700 hiring managers in 42 countries, 65% of Hong Kong employers revealed that they face severe talent shortage, only ranking behind Japan (83%) and Peru (68%) (ManpowerGroup, 2015). While asking employers why it was difficult to fill positions, 18% of respondents commented that the job applicants lacked sufficient hard skills and 4% explained that the applicants had insufficient soft skills (ManpowerGroup, 2017). At the same time, 89% of fresh graduates in Hong Kong can successfully find employment within three months. However, 14% of these new entrants fear that they cannot meet the increasing market demand with their current skill levels (HR in Asia, 2017). Overall, this implies that Hong Kong has a skills gap problem.

In preparation for the new challenges of the 21st century, such as political, social and cultural changes, and international competitiveness, Hong Kong carried out a comprehensive review of the education system and instituted a higher education reform in 2001. This reform aimed to increase higher education opportunities for young people. In 2017, 24.4% of the population were educated to first degree level or above, which is a noticeable improvement compared to only 10.4% in 1998 (Hong Kong Special Administrative Region, 2014, 2017a). Wan (2001) argues that the purpose of this government policy was to address the mismatch between the knowledge and skill capabilities of the workforce and those required by businesses.

While students may rate their competency levels as high in general (Stewart, Wall and Marciniec, 2016), organizations tend to have a different perception (Mamun, 2011) and continue to demand ever higher standards. In turn, there is an increasing demand for universities to produce graduates

1 that are more practically work-ready (Low, Botes, Dela Rue and Allen, 2016; Alhelalat, 2015;
2 Poon, 2014; Jackson, 2010). Thus, the aim of this study is to examine employers' opinions on the
3 competencies that contribute to fresh graduates' success in the workplace. To identify which
4 competencies employers demand, this study solicits and analyzes the responses of 260 employers in
5 Hong Kong, one of the world's top financial centres, to a survey of 26 competencies identified in
6 the literature.
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9 Over the past decades, the way business operates has undergone drastic changes, such as
10 technological advancement and globalization. As a result of these changes, there is a greater need to
11 examine the requirements of employers in terms of desirable employee competencies. This study
12 makes important contributions to the empirical literature related to competencies in the workplace.
13 Firstly, this is one of the few articles that explores the validity of these competencies for success in
14 the workplace from the perspective of Asian employers. Secondly, it contributes to the
15 understanding of employers' views on competencies which signals the need for the qualities
16 required for the contemporary workplace. The provision of such information may thereby assist
17 students and employees in enhancing the correct skill sets for success at work. Thirdly, through
18 indicating the possible 'skills gap' present among fresh graduates, the study highlights the need for
19 competency development in the higher education curriculum.
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23 Literature Review

24 Definitions and categories of graduate competencies

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26 Graduate competencies have gained increased attention among the public, professional bodies,
27 higher education and researchers. McClelland (1973), an American psychologist, advocated the
28 concept of competency as a means of describing the value of employees' abilities. Boyatzis (1982)
29 and Spencer and Spencer (1993) refined the concept and proposed the theory of competency for
30 application to business and education research.
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34 Competency refers to visible elements (such as knowledge and skills) and underlying characteristics
35 (such as attitudes, traits and motives) (Boyatzis, 1982), that drive superior job performance
36 (Fleming, Martin, Hughes and Zinn, 2009; Le Deist and Winterton, 2005; McLagan, 1997). In job
37 settings, a list of competencies can be derived from analysing a job situation (Campion et al., 2011).
38 These should include specific knowledge, skills and attitudes that are necessary to perform a job
39 effectively (Miller, Wesley II and Williams, 2012). Competencies can also describe what a person
40 knows, what they are capable of doing and what people want to do (Ryan, Emmerling and Spencer,
41 2009).
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44 Scholars have attempted to classify competencies into two categories, namely 'hard' skills and
45 'soft' skills (Dunbar, Laing and Wynder, 2016; Stewart et al., 2016; Poon, 2014; Deaconu et al.,
46 2014; Orr, Sherony and Steinhaus, 2011). Hard skills refer to skills connecting to the technical
47 aspects of acquiring the knowledge to perform a job (Matsouka and Mihail, 2016), and soft skills
48 are skills that are related to interpersonal and are behavioural in nature (Andrews and Higson,
49 2008). More specifically, soft skills denote the capabilities required for managing relationships
50 among people (Rainsbury, Hodges, Burchell and Lay, 2002).
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52 In Spencer and Spencer's (1993) seminal study, they identified a number of generic competency
53 categories, which they claimed account for 80-95% of superior performance in technical and
54 management positions irrespective of the type of business. The competency list, consisting of
55 technical or hard skills and soft skills forming the fundamentals in this research area, has been
56 validated as a framework, and has been widely adopted by researchers. That said, scholars have
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acknowledged that new competencies may emerge in a changing world, especially alongside the advancement of technology (e.g. Kafai and Peppler, 2011; Teixeira and Davey, 2010).

Graduate competencies and employability

For over four decades, this domain has attracted attention from scholars and practitioners, with research investigations in Australia (Dunbar et al., 2016), New Zealand (Low et al., 2016), North America (Campbell Jr and Kresyman, 2015), Europe (Deaconu et al., 2014) and Asia (Wye and Lim, 2014). The specific subject areas that have been studied include accounting and finance, engineering, hospitality, the service sector, social entrepreneurship, and sports and recreation (e.g. Dunbar et al., 2016; Fleming et al., 2009; Ismail, Yussof and Sieng, 2011). Scholars argue that while there may be contextual differences across the globe, there are similar expectations and demands surrounding the competencies necessary for enhancing graduates' employability (Andrews and Higson, 2008).

Literature has attempted to unpack the demand of competencies at work in relation to how they contribute to work readiness, profitability and work performance. Fleming et al. (2009) conducted a study among industrial supervisors, students and graduates, who rated 24 competencies, and found that "Ability and willingness to learn", "Initiative" and "Personal planning and organizational skills" bore the highest ratings in regards to what competencies students must possess prior to starting their cooperative educational experiences. In response to a survey conducted on employers in Scotland, "Trustworthiness", "Reliability", "Motivation", "Communication skills" and "Willingness to learn" were considered to be the most important transferable skills when hiring graduates (McMurray, Dutton, McQuaid and Richard, 2016).

Employers' views on graduate competencies

As far as work is concerned, Deaconu et al. (2014) reported that employers were most satisfied with graduates' abilities in "Assuming responsibility", "Efficient activity planning and organization" and "Promptness and efficient time management". The results of content-analyzed data collected through critical incident interviews on competencies by Ryan, Spencer and Bernhard (2012) indicate that the presence of "Team leadership", "Achievement orientation", "Developing others" and "Impact and influence on others" predict business profitability. Additionally, in the context of the supply chain industry, the skills that ranked the most important by the respondents in Rahman and Nie's (2014) survey are "Team orientation", "Supply chain oriented knowledge", "Ability to see big picture", "Cross-functional coordination skill" and "Negotiation skill" for leading to high performance. These different studies reveal a clear gap between the competencies that graduates possess and the competencies that actually drive success in business.

Employers require graduates to have the fundamental technical skills necessary for their specific professions (Low et al., 2016). However, beyond that, studies have found that soft skills have received greater attention by organizations (Stewart et al., 2016) and higher education (Pang and Hung, 2012). Based on the data gathered from job advertisements placed in the careers section of newspapers, Dunbar et al. (2016) found that employers place greatest emphasis upon soft skills, and only to a lesser extent discuss technical skills. Further supporting this hypothesis, an online survey conducted in the UK concluded that human resource professionals are very impressed with graduates' technical skills, but express concerns about their soft skills and attributes (Poon, 2014). A study soliciting comments from the Romanian labour market revealed that employers view transversal competencies as more important than professional competencies (Deaconu et al., 2014). In a study surveying 143 organizations, Jackson and Chapman (2012) found that students were confident and proficient on technical aspects but were significantly deficient in managerial skill sets.

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3 Researchers argue that soft skills are more important and are in higher demand by employers
4 (Dunbar et al., 2016; Stewart et al., 2016; Poon, 2014; Orr et al., 2011; Fleming et al., 2009).
5 However, in a qualitative study conducted among graduates and students, Rainsbury et al. (2002)
6 found that hard skills and soft skills were perceived to be equally important by graduates and
7 students. This difference in perceived importance of skill sets for employability suggests that
8 employers' perspectives on hard and soft skills are worth studying. Moreover, as pressure on
9 universities and other higher education institutions to prepare students for entering into the labour
10 market has increased, there has been corresponding increased attention on designing curricula that
11 serve the requirements set for graduates by employers. To substantiate overall effectiveness,
12 determining employers' views on competencies is essential. Therefore, the main objective of this
13 paper is to assess employers' comments on competencies required for fresh graduates at work.
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16 17 **Method**

18 19 *Sample and procedure*

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21 This study employed a quantitative approach. Samples were 289 full time employees of various
22 organizations from Hong Kong who were attending two part-time evening executive MBA
23 programmes at two government-funded universities. The programmes were accredited by the
24 Association to Advance Collegiate Schools of Business (AACSB), which is an international
25 accrediting body of professional schools aiming at reinforcing the quality of management education
26 at the collegiate level (Trapnell, 2007).
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29 The participants were asked to volunteer for the study by completing a paper-and-pen questionnaire
30 on behalf of their organizations. The questionnaire was accompanied by a cover letter explaining
31 the purpose of the study and assuring respondents of the confidentiality of their responses. The net
32 response of the MBA sample was 260 usable replies from the total 289 invitations delivered, which
33 yielded an overall response rate of 90%. The significantly high response rate was due to adopting
34 the personal drop-off and pick-up method (Allred and Ross-Davis, 2011).
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36 Demographic characteristics (e.g. gender, work experience, company major business, and company
37 size) were elicited in the questionnaire. 100% of the respondents were full-time working adults.
38 62% were male. The respondents had an average of 12.2 years of full-time work experience each.
39 Table 1 below shows the companies' business nature. Of these employers, 32.8% had 1,000
40 employees or more, while 34.7% had 99 employees or less. 11.9% of the companies indicated their
41 geographical coverage as worldwide while the rest revealed that their business was Asia-wide.
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46 **Table 1 Companies' business nature of the respondents**

48 Business services	5.9%	15
49 Construction/Real state	6.9%	18
50 Creative industry	3.9%	10
51 Education institue	2.0%	5
52 Finance/Insurance/Banks	12.7%	33
53 Food & Bev/ Hotels	5.9%	15
54 Gov. department	3.9%	10
55 Hi-tech/IT/Telecoms	12.7%	33

1	Import/Export Trade	3.9%	10
2	Logistics	2.9%	8
3	Manufacturing	13.7%	36
4	Other	9.8%	25
5	Retail/ Wholesale	11.8%	31
6	Social, community & personal service	1.0%	3
7	Trade processing	2.0%	5
8	Transportation/Storage	1.0%	3
9		<u>100.0%</u>	<u>260</u>

Measures

At first, 25 competencies were identified (adapted from Robinson, Garton and Vaughn, 2007; Coll and Zegwaard, 2006; Burchell, Hodges and Rainsbury, 2000; Spencer and Spencer 1993) which were believed to be the required competencies for success in the workplace. Within that set, the definition of one item “Language proficiency” was modified to suit the context of the Hong Kong bilingual labour market demand. Notably, scholars have argued that being hardworking and displaying a willingness to shoulder extra work are work values shared in some far-Eastern cultures (Han and Altman, 2010; Matthews, 2000; Lin, 1998; Williams and Sandler, 1995). Thus, one additional item (“Hardworking and willingness to take on extra work”) was created by the authors to better capture the values of the Hong Kong work environment.

These 26 items (see Table 2) were deemed appropriate to gain insights on how to lead fresh graduates to succeed in the workplace. The primary advantage of this framework is that each competency has been defined with descriptive behaviours, thereby providing a consistent ground for interpretation. On a 7-point Likert scale (1=Not Important at All; 2=Unimportant; 3=Little Importance; 4=Neutral; 5=Quite Important; 6=Important; 7=Essential), respondents were asked to rate the importance of each of the competencies contributing to the success of fresh university graduates in work settings.

Rainsbury et al. (2002) adopted 24 competencies from Spencer and Spencer (1993) and grouped them into two categories - hard and soft skills. This study also adopts such categorisation and, thus, separates the 26 competencies into hard and soft skills. The newly created item “Hardworking and willingness to take on extra work” and the item of “Creativity, innovation and change” taken from Robinson et al. (2007) were categorised under soft skills. Table 2 below shows the competencies, their descriptive behaviours, and the categorisation of hard and soft skills of this study.

Table 2 Competencies and descriptive behaviours

Competency	Descriptive behaviours
<i>Hard skills</i>	
1. Analytical thinking	Thinking for self, reasoning, practical intelligence, planning skills, problem analysing, systematic
2. Computer literacy	Able to operate multiple suites and operating systems, information management awareness
3. Conceptual thinking	Pattern recognition, insight, critical thinking, problem definition, can generate hypotheses, linking

4.	Language proficiency	Chinese language proficiency, English language proficiency
5.	Organizational awareness	Understands organization, knows constraints, power and political astuteness, cultural knowledge
6.	Personal planning and organizational skills	Ability to schedule, anticipate problems, think ahead, methodical, systematic
7.	Technical expertise	Job related technical knowledge and skills, depth and breadth, acquires expertise, donates expertise
<i>Soft skills</i>		
8.	Ability and willingness to learn	Desire and aptitude for learning, learning as a basis for action
9.	Achievement orientation	Task accomplishment, result seeking, employs innovation, competitive, seeks impact, aims for standards and efficiency
10.	Concern for order, quality and accuracy	Monitoring, concern for clarity, reduces uncertainty, manage events and issues
11.	Creativity, innovation and change	Generate new ideas, inspire, think outside of box, mindset of change
12.	Customer service orientation	Service orientated, focus on client needs, actively solves client problems
13.	Developing others	Training, coaching, mentoring, providing support, positive regard
14.	Directiveness	Assertiveness, decisiveness, use of power, taking charge, firmness of standards, group control and discipline
15.	Flexibility	Adaptability, perceptual objectivity, remaining objective, resilience, behaviour is contingent on the situation
16.	Hardworking and willingness to take on extra work	Go the extra mile, provide assistance, willing to work overtime, perform tasks outside job scope
17.	Impact and influence on others	Strategic influence, impression management, showmanship, persuasion, collaborative influence
18.	Information seeking	Problem definition, diagnostic focus, looking deeper, contextual sensitivity
19.	Initiative	Bias for action, decisiveness, strategic orientation, proactive, seizes opportunities, self-motivation, persistence
20.	Interpersonal understanding	Empathy, listening, sensitivity to others, diagnostic understanding, awareness of others' feelings
21.	Organizational commitment	Align self and others to organizational needs, business-mindedness, self-sacrificing
22.	Relationship building	Networking, establish rapport, use of contacts, concern for stakeholders e.g. clients
23.	Self-confidence	Strong self-concept, internal locus of control, independence, positive ego strength, decisive, accepts responsibility
24.	Self-control	Stamina, resistance to stress, staying calm, high Emotional Quotient, resists temptation, not impulsive, can calm others
25.	Team leadership	In charge, vision, concern for subordinates, builds a sense of group purpose
26.	Teamwork and cooperation	Fosters group facilitation and management, conflict resolution, motivation of others, creates positive workplace climate

Results

Importance of competencies

The levels of importance of competencies contributing to fresh graduates' success in the workplace

are presented in Table 3. All items received a rating of above 5, except for “Impact and influence on others” (4.96), “Directiveness” (4.94), and “Developing others” which obtained mean scores of slightly below 5.

The mean rating of the competencies was between 6.08 and 4.85. A mean of less than 3 was interpreted as being unimportant. The results indicated that while all 26 competencies were rated as important to varying degrees, as revealed by their mean ratings, all competencies were perceived by employers as important to *some* degree, meaning they all contribute to fresh graduates’ success in the workplace.

Table 3 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Ability and willingness to learn	260	2	7	6.08	.975
Achievement orientation	260	2	7	5.55	.975
Analytical thinking	260	2	7	5.67	.981
Computer literacy	260	2	7	5.19	1.014
Conceptual thinking	260	3	7	5.39	.990
Concern for order, quality and accuracy	260	2	7	5.44	.946
Creativity, innovation and change	260	2	7	5.21	1.060
Customer service orientation	260	2	7	5.41	1.092
Developing others	260	1	7	4.85	1.191
Directiveness	260	1	7	4.94	1.197
Flexibility	260	2	7	5.42	.985
Hardworking and willingness to take on extra work	260	1	7	5.70	1.095
Impact and influence on others	260	1	7	4.96	1.143
Information seeking	260	3	7	5.32	.922
Initiative	260	3	7	5.50	.996
Interpersonal understanding	260	2	7	5.50	.948
Language proficiency	260	2	7	5.56	1.010
Organizational awareness	260	2	7	5.05	.971
Organizational commitment	260	1	7	5.23	1.035
Personal planning and organizational skills	260	2	7	5.20	.983
Relationship building	260	2	7	5.33	1.017
Self-confidence	260	2	7	5.52	1.023
Self-control	260	3	7	5.70	.935
Team leadership	260	1	7	5.14	1.174
Teamwork and cooperation	260	2	7	5.71	.970
Technical expertise	260	1	7	5.12	1.035
Valid N (listwise)	260				

The five most important competencies as rated by employers were “Ability and willingness to learn” (6.08) which was ranked as number 1 as per its mean rating, followed by “Teamwork and cooperation” (5.71), “Hardworking and willingness to take on extra work” (5.70), “Self-control” (5.70), and “Analytical thinking” (5.67). In terms of least importance, “Impact and influence on

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others”, “Directiveness”, and “Developing others” are at the bottom of the list. Figure 1 below shows the ranking in the order of mean scores.

For Peer Review

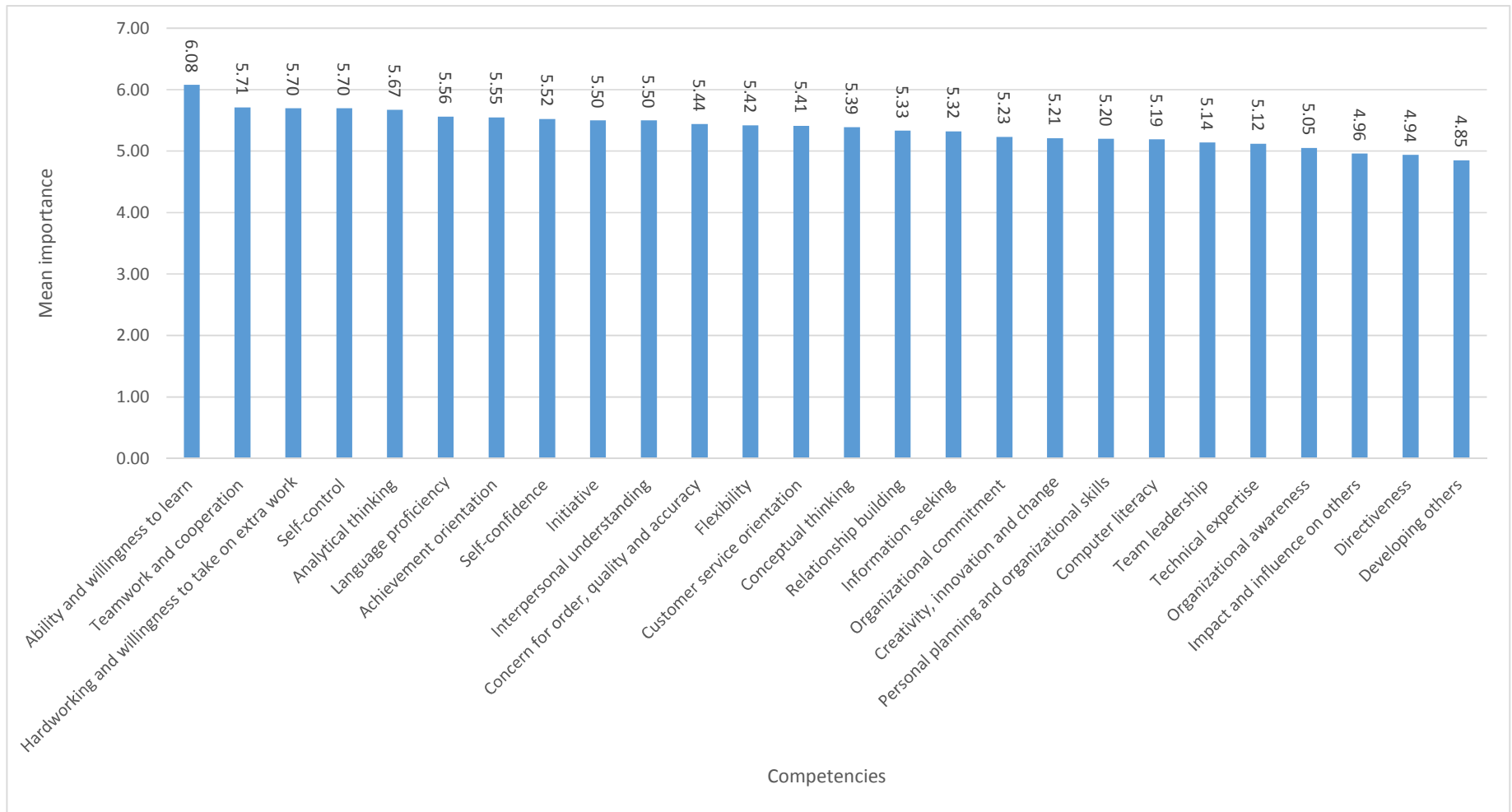


Figure 1 Descriptive Statistics

Comparison of hard and soft skills

Overall the mean ratings of all 26 competencies, as ranked by employers, were between 4.85 and 6.08, denoting that all of the competencies were viewed as important qualities required for fresh graduates' success in the workplace. To garner further meaning from the survey results, the importance of hard skills was compared with soft skills' level of importance. Table 4 reflects the mean difference between hard skills (19 items, mean=5.3114) and soft skills (7 items, mean=5.3953).

Independent-samples t-Tests are used to compare the means between two unrelated groups on the same continuous, dependent variable. An independent-samples t-Test was performed but the differences were not statistically significant at 0.05 or 0.01 alpha level, thereby confirming that both hard skills and soft skills were perceived to be equally important (Table 4 and 5).

Table 4 Results of independent samples t-Test Group Statistics

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Skills	Hard	7	5.3114	.23405	.08846
	Soft	19	5.3953	.30264	.06943

Table 5 Statistical relationship between importance of hard and soft skills

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Skills	Equal variances assumed	.198	.660	-.661	24	.515	-.08383	.12691	-.34577	.17810
	Equal variances not assumed			-.745	13.909	.468	-.08383	.11246	-.32518	.15751

*p < 0.05; ** p < 0.01; N=260

Discussion

Employers are arguably the foremost experts on which competencies are most needed in the workplace. Including their views in the analysis of the importance of competencies can generate

1 insights for universities in guiding their strategies of developing students and improving the
2 employability of graduates. Hence, this paper explores employers' views on the perceived
3 importance of 26 competencies. The study expands the dimensions of analysis by comparing the
4 overall importance of hard and soft skills.
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7 The research findings show that employers rated all competencies as important to varying degrees,
8 as revealed by their mean ratings. That is, all the competencies surveyed facilitate fresh graduates'
9 success in the workplace as perceived by employers. However, notably, "Ability and willingness to
10 learn", "Teamwork and cooperation", "Hardworking and willingness to take on extra work", "Self-
11 control", and "Analytical thinking" rank as the top five most important competencies. These five
12 competencies are categorised as soft skills (Rainsbury et al., 2002) and employers appear to
13 consider these specific soft competencies as most important. However, statistical analysis supports
14 neither the hard nor soft category as being more important than the other. This implies that they are
15 equally important to employers when considering qualities contributing to the success of fresh
16 graduates at work. At the other end of the spectrum, "Impact and influence on others",
17 "Directiveness", and "Developing others" rate the least important. Fresh graduates are usually
18 hired for entry-level positions. Fresh graduates are typically hired for entry-level positions.
19 Employers expect them to be employment-ready, capable of working with others and with
20 minimum supervision (Andrews and Higson, 2008). Although employers may also expect fresh
21 graduates to possess leadership potential, they may not have immediate need for fresh graduates to
22 take on leadership roles.
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25 One method of developing these skills among students is through exposure to real work
26 environments (Jackling and Natoli, 2015). Through strategic partnerships with industry, universities
27 have instituted programmes to expose students to the workplace, thereby reducing the initial shock
28 of a reality quite different from academia. These experiences are termed "practicum", "gap-year",
29 "internship", "cooperative educational experience" or "work-integrated learning" (Martin, Rees,
30 Edwards and Paku, 2012; Knouse and Fontenot, 2008; Hascher, Cocard and Moser, 2004). The
31 commonality between them is that students are immersed in a related work environment, arranged
32 or endorsed by their university, to experience the routines of employment.
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35 One such example of a programme that places great emphasis on real work experience is
36 apprenticeships in the UK. Apprenticeships are paid jobs that incorporate on- and off-the-job
37 training covering the full range of industry activity (Delebarre, 2015). Apprenticeship programmes
38 enable an apprentice to work towards the completion of certain qualifications (Hasluck and
39 Hogarth, 2010). Apprenticeships were introduced in England in 1997. That year saw approximately
40 50,000 apprenticeships commence (Delebarre, 2015). Since then, the number of available
41 apprenticeships has increased greatly, with 900,000 apprenticeships commencing in the 2015
42 academic year alone. Furthermore, the UK government has set an ambitious target of 3 million new
43 apprenticeships by 2020 (Powell, 2017), meaning that 1 in 5 new jobs starters will be apprentices
44 (White, 2017). This demonstrates the perceived demand for this type of education as well as pays
45 tribute to the success of the programme, highlighting the feasibility of instituting a similar
46 programme in other international labour markets.
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49 Despite the different formats, all of these programmes suffer from inherent challenges
50 (Freudenberg, Brimble and Cameron, 2011; Billett, 2009; McLennan and Keating, 2008). The more
51 conspicuous ones are a lack of interest in coaching student participants leading to an unsatisfying
52 experience; disinterested student participants not accustomed to workplace etiquette resulting in
53 frustrated employers; student participants lacking the necessary skills to meet required standards;
54 unsuitable work environments; and unwillingness to compensate student participants meaningfully.
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57 Perhaps a more ideal industry-school model would be one in which both employers and student
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1 participants are highly motivated and committed to the placement. This model, based upon
2 cooperation from both employers and students, requires students to spend about a third of their
3 university life in a work place and to be paid a market rate salary. Incoming students spend their
4 first year on campus, then interview competitively for a job in their field of study starting the
5 second year. They then alternate between study and work terms until graduation. The study terms
6 allow the students to assimilate practice with theory, while the work terms enable them to apply
7 theory to practice. Students are required to perform well in both academia and at the workplace.
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10 By the time students graduate, they would have accumulated approximately two years of solid work
11 experience, and have been paid enough that they would be debt free. At the same time their future
12 employability is assured, due to the exposure, training and achievements they would have gained at
13 the co-op employment. Indeed, this refining process of study and work over five or six cycles
14 should result in a competent graduate, who not only possesses academic skills, but has advanced
15 knowledge of business acumen with approximately two solid years of experience in a relevant field.
16 The iterative process of work and study is the impetus behind the effectiveness of such a
17 programme.
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20 For this programme to be truly feasible, solid support from industry is key. Employers would have
21 to be convinced of the ability of the student participants to contribute to their businesses before they
22 would pay a market rate salary or assign meaningful work. This confidence would need to be
23 developed over time, as the law of probabilities dictates the rare occasion of misfit. In some
24 countries, the government may also contribute to such co-operative education programmes by
25 granting a tax subsidy to businesses hiring student participants, on the condition that they be
26 assigned relevant and meaningful responsibilities. Such tax incentives would probably be the single
27 greatest motivator for hiring students.
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30 The university, in turn, needs to fulfil its role in the triangular relationship. The university's
31 admission standards would be the gate keeper for producing co-op students of a consistent and high
32 calibre. Second, academic curriculum is expected to provide enough latitude for reflection and
33 application of learnt experiences. This in turn should improve the co-op student's performance in
34 the next work cycle.
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36 The UK provides a useful example of the potential of such a programme that blends academic
37 learning, work place experience and government support. Since 2015, the UK government has been
38 offering an apprenticeship programme with three levels – Foundation, Advanced, and Higher
39 apprenticeships (Hasluck and Hogarth, 2010). Degree apprenticeships are higher apprenticeships,
40 which allow participants to earn an undergraduate or masters' level degree while being employed
41 fulltime and securing at least an apprentice's minimum wage (Rowe, Perrin and Wall, 2016; Bishop
42 and Hordern, 2017). Importantly, the government funds apprenticeship training in England. From
43 May 2017, if an employer trains an apprentice and pays the levy arising from apprenticeships,
44 this employer receives full funding support from the government. If an employer does not paid
45 the levy and would like to train an apprentice, the employer will need to co-invest 10% and can
46 claim government funding to cover the remaining 90% of the costs. The aim of this mechanism
47 is to create an apprenticeship system with high commitment from employers (Department for
48 Education, 2016). Moreover, these degrees are co-designed by the institutes and employers to
49 ensure that students gain the competencies most desired in their respective industries, thereby
50 significantly enhancing their competitiveness in the labour market. In testament to the success of
51 such a programme, as of the 2017-2018 academic year, there were over 7,600 degree
52 apprenticeships, a noteworthy increase from tens originally on offer (Higher Education Funding
53 Council for England, 2017).
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Conclusion

With the increasing demands from employers on fresh graduates comes an increasing need for better understanding of graduate competency requirements. From the survey conducted, it is apparent that employers in Hong Kong desire a diverse range of competencies in fresh graduates and indicate all 26 competencies listed in the surveys to be important to some degree for graduates' success in the workplace. Through collaboration between universities and industry, these needs of the labour market may be developed and nurtured in students, with the ultimate goal of producing capable and competent graduates who possess the skills necessary to meaningfully contribute to, and advance companies' competitiveness. With apprenticeship programme examples in places like the UK readily available, universities, ideally supported by government, can study, learn and then develop and implement similar programmes with a clear focus on the competencies demanded by employers.

This is the first research, to the authors' knowledge, that approaches desirable graduate competencies from the perspective of employers in the context of Hong Kong. This context should be taken into account when making comparisons with other research relating to graduate competencies. However, as a new study into the subject in Hong Kong, these findings offer interesting and valuable conclusions in that Hong Kong has its peculiarities.

It is also important to consider the major limitations of this study. As noted, the study is constrained to the context of a cross-sectional survey methodology covering a relatively small sample size. Qualitative research should be carried out taking into account the larger context with more nuance. There is also a need to replicate this study with samples from other developed knowledge-economies, such as Singapore or Japan, if the research is to be generalised to any extent.

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