

## **ANALYZING SKILL PROFILE AMONG BUSINESS GRADUATES: IS IT GENERIC OR SPECIFIC?**

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### **ABSTRACT**

*Empirical studies on skill profile required at the workplace have focused on individual job function and industry per se. These studies may have ignored the potential heterogeneity of skill requirement across job functions and industries. Some of the skills may be occupation-specific, industry-specific or generically applicable across occupations and industries. Based on a Malaysian case study on 45 managers of five different job positions who had experience in job recruitment in six different industries, this study shows that not only are skills and abilities, personal attributes, and content knowledge statistically specific to industry and job, some of the characteristics in these aspects are generically applicable to all industries and jobs.*

**Keywords:** Soft skills, Personal attributes, Job knowledge, Business graduates, Generic and specific skills, Industry-specific, Job-specific, Graduate employability.

### **1. INTRODUCTION**

In recent years concern has been expressed over the importance of soft skills which are more generic in nature at workplace. This phenomenon is justifiable on the ground that the ever changing organizational and employment structure at the competitive workplace have rendered job requirements in terms of hard skills to be inadequate in handling daily work tasks. As such, employers are looking for broader types of skills to complement hard skills (Brown *et al.*, 2001; Kamarainen *et al.*, 2002). Besides soft skills, personality traits have been proven to have direct impact on labor market outcomes (Semeijn *et al.*, 2005), such as wage determination (Duncan and Dunifon, 1998; Murnane *et al.*, 2001), probability of employment (Cobb and Tan, 2011), and pre- and post-market outcome (Antecol and Cobb-Clark, 2013).

Acknowledging the importance of soft skills and personality traits at the workplace, research efforts have been devoted to identifying the skill profiles and their applicability in occupations of different business functions and industries for job performance and career development. The literature has largely focused on such business functions as accounting (Siegel and Sorenson,

1999; Hassall *et al.*, 2005), customer service, sales and marketing (Barnes *et al.*, 2013; Pryor *et al.*, 2013), information system (Mumford *et al.*, 2007; Hawk *et al.*, 2012), hospitality and tourism management (Suh *et al.*, 2012; Testa and Sipe, 2012). Empirical studies are also extended to examining skill profiles at different industries like insurance, banking and financial services (Goby and Lewis, 2000; Jaiswal and Srivastava, 2013), manufacturing (Smith *et al.*, 2009; Rasul *et al.*, 2013), franchising and retailing (Solomon, 1995; Hashim, 2013), and telecommunication and information system (Noll and Wilkins, 2002; Grugulis and Vincent, 2009).

While the empirical studies on skill profiles required at the workplace has identified varying skills and personality traits needed in occupations of different business functions and industries, they have, however, focused specifically on individual function and industry *per se*. These studies may have ignored the potential heterogeneity of skill requirement across job functions and industries. The importance of skills, personal attributes and knowledge may be different by jobs and industries depending on the characteristics and nature of each. Some of them may be occupation-specific, industry-specific or even generically applicable across occupations and industries. However, previous studies examining the importance of skills, attributes and knowledge have placed less focus on identifying these aspects by its nature – whether generic or specific to job functions and industries.

It is crucial to identify the skill profile by its nature as a means to effectively designing proper training programs to be tailored to a particular job function or industry. In the event where a group of skill competency is generic in nature, general training programs can be designed to suit the need of all job functions of workers within an organization or even across the industries for training programs initiated by independent training agencies or the government. If the skills are specific to a particular job or firm, or even industry, specific training programs can be designed accordingly. This practice of human resource management facilitates efficient resource allocation for training and development purposes within an organization in particular, and in a government in general. As observed by Reiter *et al.* (2006), occupationally-specific skill information can be used in multiple human resources functions, such as training needs analysis, facilitating placement decisions, evaluation of pay and bonus structure, development of performance evaluation instruments and performance standards, personnel selection and promotion, and designing better career management system.

In addition, identifying the skill profile by its nature may enable both employers and workers to capitalize on the types of training chosen. For example, workers may want more generic training since it may put a lower bound on their post-training wage, while employers may want the generic component of the training to be as low as possible since it may decrease their expected returns to industry-specific training (Smits, 2007). In fact, workers invest more in generic training to face with the potential risk on their firm-specific skills that is due to changing business and transaction style or technology used (Maki *et al.*, 2005). However, firm-specific skills may generate higher returns to workers than skills that are more common to a broader set of firms

(Cingano, 2003). In a nutshell, regardless of the types of training preferred and chosen by employers and workers and the party to whom the monetary advantage works, it is useful for both employers and workers to identify the skill profile by its nature so that they will be able to know the group of skill competency to which their investment should be channeled.

It is, therefore, the aim of the present study to identify the generic and specific nature of the skill profile in occupations of different business functions and industries. The next section discusses the skill profile of business graduates holding jobs of different business functions in different industries. Research methodology employed in the present study is explained subsequently, followed by the interpretation of the research findings. The last section concludes with the discussion on the implication to policy makers on the skills to be developed among workers.

### 1.1. Skill Requirement for Occupations of Different Business Functions

Literature on soft skills requirement for job performance and career development extends to occupations of different business functions, such as accounting, customer service, sales and marketing, information system, and hospitality management. For instance, almost 90 and 96 percent of the academics express the need of emphasizing communication skills in accounting curriculum, and prioritize the capability of solving unstructured problems requiring varying information sources, respectively, for public accountants (May *et al.*, 1995). Meanwhile, noting the changing role of management accountant in US, Siegel and Sorenson (1999) identify the following skills and abilities for career success: teamwork, analytical, solid understanding of accounting and how a business functions. Besides that, Hassall *et al.* (2005) found that UK employers of management accountant prioritize oral and written communication as well as effective listening skills, while Spanish employers assign higher importance scores for commitment to life-long learning and having globalvision for the organization.

Soft skills required of such frontline operation employees as the customer service officers and sales and marketing representatives are largely related to communication and listening skills as a means of winning favor from customers and upholding company's reputation for enhancing buyer-seller relationship and customer satisfaction (Barnes *et al.*, 2013). This requires competent customer service skills like reputation building, non-verbal communication, and customer service culture, which have positive impact on customer service satisfaction that in turn serves as mediating factor between customer service skills and customer loyalty (Abu-ELSamen *et al.*, 2011). This finding is echoed by Pryor *et al.* (2013) that customer loyalty shown through extended sales relationship is a result of salesperson's listening skills that contain of both cognitive and affective characteristics. In Taiwan, Wu *et al.* (2004) found that an information system manager of all management levels (i.e. supervisory, middle and top) is required to be equipped with such skills as analysis and judgment, creativity (innovation), planning and organizing, leadership, monitoring and controlling, and communication and coordination. This

differs from a U.S. study of junior, midlevel and senior managers in that the requirement of different categories of leadership skill (i.e. cognitive skills, interpersonal skills, business skills, and strategic skills) increases as one moves up the job-ladder of different organizational level (Mumford *et al.*, 2007). While these skills requirements are “softer” in nature, a study by Hawk *et al.* (2012) pointed to the greater need of hiring new workers with much “harder” technical skills in the client’s company than do the information system service providers themselves. In a nutshell, both soft and hard skills are relevant to job tasks involving information system management.

Besides that, empirical research examining the skill set required of employees in the hospitality industry in the U.S. and Australia highlights several dimensions of core competencies, which are hospitality skills, supervisory skills, leadership, food and beverage management skills, communication skills (Suh *et al.*, 2012), interpersonal skills (Raybould and Wilkins, 2006; Suh *et al.*, 2012), problem-solving, and self-management skill (Raybould and Wilkins, 2006). In fact, communication skills and product development competencies are exceptionally desired in the food industry in European countries, of which the extent of importance varies by geographical region, employment area and employees’ level of responsibility (Flynn *et al.*, 2013).

## 1.2. Industry-Specific Skill Requirement

Empirical studies on industry-specific soft skills requirement explore its applicability in such industries as insurance, banking and financial services, manufacturing, franchising and retailing, and telecommunication and information system. For instance, Goby and Lewis (2000) argued that good listening skills are perceived to be more crucial by insurance managers, insurance agents, policy-holders, and non-policy-holders in the Singapore insurance industry than speaking skills, which is believed to be important among students majoring in insurance. Meanwhile, empirical studies on the banking and financial service industries underscore the need for both technical skills and personality traits, both explicitly and implicitly. As observed by Thomson (2007), there has been increasing demand for IT skills in the financial services sector, such as banking, to improve the capacity of back-office systems in handling unexpected trading activities. However, personality traits like loan managers’ level of motivation is found to have lower influence on bad loans in banks (Sanjeev, 2007).

Employers in manufacturing industries, as observed by Rasul *et al.* (2013), place great importance on interpersonal skills (e.g. customer service and leadership), thinking skills (e.g. creative/innovative thinking and problem-solving), and personal qualities (e.g. integrity). Besides that, oral communication skill in English is seen as a useful tool for Asian engineers. In Malaysia (Kassim and Ali, 2010) and Taiwan (Spence and Liu, 2013), English communicative events deemed to be important for career advancement among engineers are teleconferencing, customer visits, relationship building, networking for contacts and advice, and presenting new ideas and alternative strategies. In addition, as observed by Smith *et al.* (2009), some of the skills also encompass the exercise of effective political skill among plant managers to achieve both affective

and substantive organizational outcomes, such as arrangement of dispositional traits, utilization of interpersonal behaviors, and focusing on managerial processes. Meanwhile, employers in the retailing industries require their sales persons to possess a list of industry-specific generic skills and personal qualities when it comes to hiring, training and evaluation (Solomon, 1995). The list includes the following skills: reading for information, applied mathematics, listening, writing, locating information, applied technology, teamwork, positive demeanor, courtesy, reliability, initiative, and confidence. As retailing sales largely involves interaction with customers, some of these skills are seen as critical to interactive service work. For instance, Thompson *et al.* (2001) argued that aesthetic and social skills are more important than technical skills in interactive service work. Only by understanding themselves, can the interactive service workers use their emotions consciously to improve the quality of the service. Meanwhile, Hashim (2013) viewed leadership development as a need for producing successful leaders in the entrepreneurial franchising industry. He highlighted the importance of *education*, which is pertinent to knowledge work as a franchisee, and *exposure* and *experience*, which is crucial for interaction with franchiser and clients, in developing leadership skills in franchising industry.

To succeed in the telecommunication and information system industries, soft skills like teamwork and collaboration, planning and leading projects, presentation delivery, and writing skills are deemed important (Noll and Wilkins, 2002) and they are directly linked to the use of flexible technologies and work organization practices (Gale *et al.*, 2002). However, the role of soft skills proficiency may not be the same across all levels of IT workers, thus polarizing the workforce by level of technical skills competency (Grugulis and Vincent, 2009).

### 1.3. Hypotheses Formation

While the empirical studies on the job requirement for skills, personal qualities and content knowledge in different business functions and industries highlight the practicality of different skill profiles in a particular business function or industry, their variability across occupations of different business functions and industries is less accounted for. The importance of certain skill profiles may not be of equal extent for a particular business function or industry compared to the others. On the contrary, some skill profiles could be generally applicable among all functions and industries to render generic nature to them. As such, it warrants a further research on identifying the generic and specific nature of these skill profiles in occupations of different business functions and industries. It is this objective that the present study is trying to achieve. Therefore, the present study aims at testing the following hypotheses:

*H<sub>0</sub>*: Skills and abilities, personal attributes, and content knowledge can be generically applicable across all industries and jobs.

*H<sub>1</sub>*: Skills and abilities, personal attributes, and content knowledge can either be industry-specific or job-specific.

#### 1.4. Data Collection and Methodologies

This study is conducted through questionnaire survey on 45 managers of five different job functions from six industries in Malaysia. The job functions are customer service, administrative, marketing, finance and accounting, and human resource, while the industries contain of hypermarket, insurance, telecommunication, banking, manufacturing, and accounting. All respondents have been involved in recruitment for job candidates in their respective job functions and industries, with an average of 3.84 years of recruitment experience. At least 90 percent of the managers have been involved in setting the job requirement and job description for a particular position, conducting job interview and pre-employment tests, and deciding on selection and hiring. Given their relentless recruitment experience and managerial position at their respective organization, the managers' perception on what is required of job candidates nowadays is one that best reflects that of their organization in particular, and of their job functions and industries in general. As such, these 45 managers, albeit relatively small in size, are representative of 45 organizations hiring job candidates into different job functions and industries. Table 1 shows the summary statistics for the composition of managers by job functions and industries.

In terms of questionnaire design, managers are asked to list down as many skills and abilities, personal attributes, and job knowledge as required when hiring a university graduate into the five job functions and six industries, respectively. Besides that, managers are also required to state the determinants of their hiring decision, and pick the most influential one for them to reach the word of final. They are subsequently requested to express the area at which university fresh graduates are lacking, and to provide suggestions to universities on the measures to be taken in enhancing employability among university graduates. All of the above questions are structured in an open-ended form requiring the managers to express their opinions qualitatively. As such, their answers are re-grouped into quantitatively analyzable categories based on proximity to each other.

In this study, cross-tabulation method is used to identify if there are statistical differences of managers' criteria on graduate employability by job functions and industries. A statistically significant Pearson  $\chi^2$  test implies that a particular criterion is either job-specific, industry-specific, or both, whereas a statistically insignificant test implies that the criterion is generic in nature and can be generally applicable across job functions and industries. To the best of our knowledge, this methodology has yet been employed in previous studies. As such, it warrants us to develop a graduate employability model for Malaysia, taking into considerations both specific and generic criteria.

## 2. RESEARCH FINDINGS

Referring to Table 2 in Appendix, overall, it is observed that communication skills, computer knowledge, and multi languages proficiency are most highly required by employers. Around 78, 51, and 40 percent of the employers interviewed expressed the importance of these skills in carrying out the tasks within their job scope. In addition, Pearson Chi-square test shows that the

requirement of these skills is statistically varied by employer's job positions, but not industries. This indicates that these skills could be equally important in all industries, while their applicability might differ by jobs.

Meanwhile, the importance of such skills as data analysis, teamwork, negotiation, persuasion, counseling, and customer service is statistically associated to types of industry. In fact, the requirement for data analysis skill differs by both job position and industry. This skill is highly valued in accountancy profession as opposed to hypermarket and telecommunication industries, while it is crucial for handling financial and accounting jobs as compared to customer service, administrative and human resource jobs. Overall, there are a number of skills which are not statistically differed by both industries and job positions, such as interpersonal, problem solving, data organization, literacy, oral presentation, leadership, decision making, and listening. These skills are relatively generic in nature and should be applicable across industries and jobs.

The importance of personal attributes as regarded by employers is shown in Table 3. It is observed that, overall, being responsible (60%) and adaptable (40%) as well as having decent attitude (40%) are among the most important personal attributes sought by employers. Pearson Chi-square tests demonstrate that the applicability of these attributes is not statistically associated to both industry and job position, indicating that these attributes might be generic, and thus generally required in any industries and jobs.

There are a few personal attributes which are statistically varied by industries only, such as confidence, respectful, efficiency and independence. For instance, around 83 percent and 50 percent of managers in telecommunication and insurance industries, respectively, expressed the importance of being confident working in this line of business. The common nature of business in telecommunication and insurance industries which deals with innovative product concept delivery to potential customers might render rationale for the applicability of confidence in handling job tasks in these industries.

Based on Table 3, it is also observed that a number of personal attributes are specific to job positions – cooperative among co-workers, self-awareness of own appearance, being patient, adventurous, and taking initiative. Around 67 percent of human resource managers emphasized on the importance of being cooperative among co-workers, which ran counter with customer service and marketing managers. The administrative nature of job functions in human resource department requires teamwork and cooperation among co-workers within the same department and across different departments within the same organization. This nature of job tasks might, to certain extent, be different from that of the individual-based customer service and marketing positions. As customer service and marketing staffs might often deal with one customer at a time at a specific point of time, they have to be independent while resourceful in rendering assistance to and convincing their customers, who prefer to follow up with the same staff whom they had initially dealt with. In addition, as a marketer, he or she is also expected to be aware of his or her

appearance and being adventurous, with about 56 percent and 33 percent of marketing managers emphasizing on these attributes, respectively.

When employers from different industries and job positions were asked to indicate the job knowledge required of university fresh graduates, about 40 percent, 33 percent and 31 percent of them expressed the importance of information technology (IT), accounting and industry knowledge, respectively (Table 4). While both IT and industry knowledge are relatively generic as evidenced from the insignificant Pearson Chi-square tests, accounting knowledge is relatively specific to industries and job positions. Undoubtedly, all managers in accountancy industry and 50 percent of managers in banking industry emphasized on the importance of accounting knowledge. Similarly, all financial and accounting managers and about 56 percent of administrative managers valued accounting knowledge higher than human resource and customer service managers.

Referring to Table 4, it is also evidenced from the statistically significant Pearson Chi-square tests that the rest of job knowledge are all specific to different job positions, despite they are generically applicable to all industries. For instance, all human resource managers emphasized on labor market related legal knowledge, while around 67 percent of administrative managers claimed that fresh graduates must be equipped with management knowledge. Approximately 78 percent of customer service managers valued product knowledge to a greater extent, knowing that this frontline position serves as a major channel from which existing and potential customers receive information on newly launched and existing products manufactured.

When employers were asked to comment on the determinants of selecting a university graduate for employment, Table 5 shows that majority of them (60%) highlighted the significance of job candidates' personal attribute, which, as evidenced from the Pearson Chi-square, is generically required across industries but specifically differed by job positions. For instance, personal attributes were more highly valued by all administrative managers and about 67 percent of marketing managers than the approximately 33 percent of finance and accounting managers. As indicated in Table 3 previously, the most sought after personal attributes for holding administrative positions are being responsible, having good attitude, being able to self-control and punctual, while what is required of good marketers is their awareness towards their appearance and quality of being confident. Since finance and accounting are jobs that require professional qualifications, such as ACCA, CIMA, CFP, etc., approximately 78 percent and 67 percent of the finance and accounting managers emphasized on the importance of academic performance and job knowledge as determinants for hiring graduates into these jobs, respectively (see Table 5).

Besides personal attributes, job determinants like skills, abilities, and work experience were also viewed as crucial by employers (around 53%), regardless of industries and job positions. On average, these factors are given more priority when making hiring decision than professional knowledge and qualifications as well as academic performance. Surprisingly, employers were

generally not particular to fresh graduates' appearance and the university from which they had completed their studies. Perhaps, these characteristics are too superficial for employers to assess job candidates' real performance.

However, what causes university fresh graduates to be unsuccessfully employed could be traced to what they are lacking of. Generally, as shown in Table 6, approximately 56 percent of managers perceived that attitude is the main aspect that fresh graduates are lacking of, followed by English communication skill (about 36%) and work experience (about 31%). This claim was unanimously agreed among managers from different industries and job positions, underscoring the inadequacy facing graduates nowadays. Lacking in work experience could probably be due to the fact that they have just graduated and are still new to the job market. Meanwhile, lacking in English communication skill could probably be the consequence of the graduates' choice of medium of communication when socializing among their course mates. Since Malaysia is made up of three major ethnic communities – Malay, Chinese, and Indian, it is a norm that students of the same ethnic group communicate with each other in their own mother tongue during informal conversation. Despite one of the official medium of communication in Malaysian university is English, the English-speaking environment is still not conducive to picking up this international language.

The managers subsequently suggested a few measures to be taken by universities to enhance graduates' employability before they enter the workplace. Table 7 demonstrates that almost 50 percent of the managers suggested industrial training program to be made compulsory in higher learning institutions, followed by introducing courses that strengthen graduates' communication skills (around 24%) and organizing seminars related to preparing graduates for job market practically (20%). The statistically insignificant Pearson Chi-square tests indicate that the managers' suggestions are generically applicable to all industries and job positions.

Meanwhile, there are also a few other suggestions made by the managers to enhance graduates' employability, such as nurturing graduates' attitude, updating course syllabus to meet industries' requirement, improving graduates' soft skills and using teaching approach that emphasizes more on case studies. These suggestions do not differ by industries and job positions, and thus requiring collaboration between university and all relevant industries as a way to eliminate the extent of mismatching between what is produced by universities and what is required in the job market.

### **2.1. Concluding Remarks and Policy Implications**

This study examines the extent to which skills and abilities, personal attributes, and content knowledge are varied by industries and job positions, a research area which is less attempted in the realm of human resource development planning. Based on a Malaysian case study on 45 managers of five different job positions who had experience in job recruitment in six different industries, this study provides empirical evidence to support our hypotheses. Not only are skills

and abilities, personal attributes, and content knowledge statistically specific to industry and job, some of the characteristics in these three aspects can be categorized as generically applicable to all industries and jobs. Figure 1 presents the graduate employability model to summarize our major findings.

Our findings suggest that personal quality is the most important hiring determinant which is found lacking among business graduates, followed by skills and abilities. Employers view personality traits like responsibility, attitude and adaptability as the top three qualities that are important regardless of the industry attached and job chosen. Meanwhile, skills like interpersonal, problem solving and data organization are more generic in nature. In addition, working in numerical-based accounting industry as finance and accounting personnel should be equipped with data analysis skill. Besides that, employers also expect workers in all industries holding different job functions to be equipped with information technology knowledge while accounting knowledge is specifically required of workers in accounting and banking industries holding finance, accounting and administrative positions.

In a nutshell, as a measure of enhancing business graduates' employability, business-related academic programs should put higher weight on industrial training besides polishing communication skills among them and conducting more career development seminars in preparing for job readiness among them. Also, program syllabus update should be performed periodically to keep abreast with the job market requirement. For human resource management practitioners, they can benefit from the present study by designing general and specific training programs on skills, personality and job knowledge required according to the graduate employability model formulated in Figure 1. However, these strategies may differ by countries due to cultural diversity. Since the findings of the present study are solely based on the perspective of employers in a developing country like Malaysia, it is therefore the avenue for future research to extend the present study to account for cultural differences between developed and developing countries to facilitate cross-cultural human resource development planning.

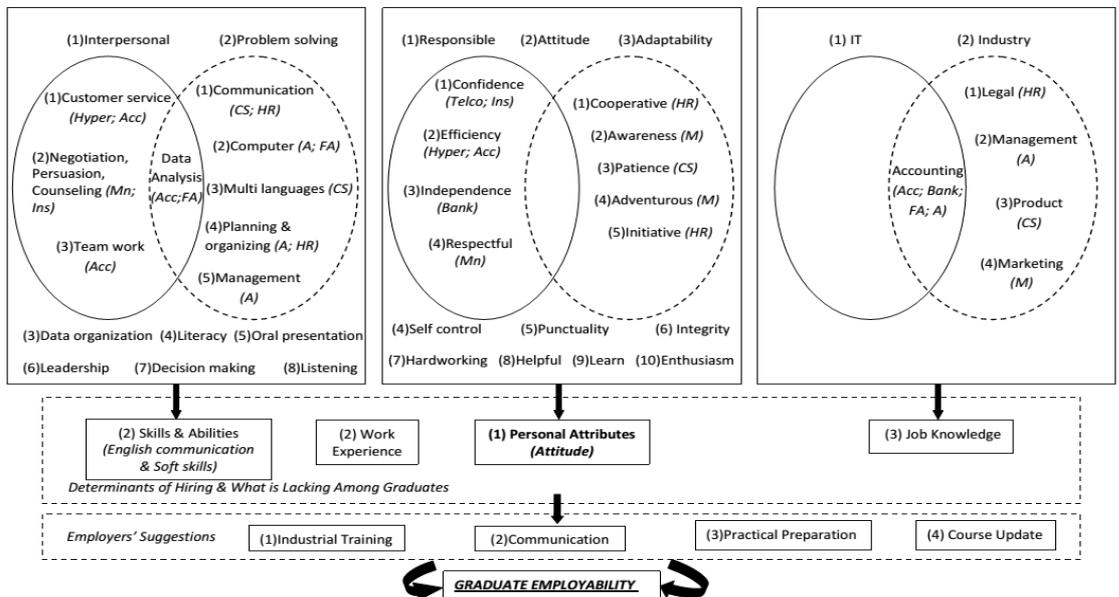
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Figure-1. Graduate Employability Model



**Note:** Items in the solid circle and dashed circle refer to ones that are industry-specific and job-specific, respectively. Item in the overlapping area of the circles refers to one that is both industry- and job-specific. Items outside of both circles refer to ones that are generically applicable to all industries and job positions. Items in the non-overlapping solid circle are also generically applicable to all jobs, while items in the non-overlapping dashed circle are also generically applicable to all industries. The importance of each item, be it industry-specific, job-specific, or generically applicable, follows the sequence from left to right and top to bottom. Bracketed and italicized abbreviations refer to the industries or job positions to which an item is specific. The most important determinant of hiring and the aspect in which fresh graduates are lacking is highlighted in bold.

**Table Appendices**

**Table-1.** Summary Statistics of Respondents

Industry	Hypermarket	Insurance	Telecommuni- cation	Banking	Manufacturing	Accounting	Total
<b>Job Position</b>							
Customer Service Manager	3	3	3	0	0	0	9
Administrative Manager	0	3	0	3	3	0	9
Marketing Manager	0	0	3	3	3	0	9
Finance & Accounting Manager	0	3	0	3	0	3	9
Human Resource Manager	0	3	0	3	3	0	9
Total	3	12	6	12	9	3	45

**Table-2.** Importance of Skills and Abilities Required by Employers: Overall, by Industries and by Job Positions (percentages)

Skills & Abilities	Overall	Industries							Job Positions					
		Hyper	Ins	Telco	Bank	Mn	Acc	Pearson $\chi^2$ test	CS	A	M	FA	HR	Pearson $\chi^2$ test
Multi languages	40.0	66.7	50.0	66.7	33.3	22.2	0	6.574	88.9	22.2	55.6	0	33.3	17.222***
Communication	77.8	100.0	83.3	83.3	50.0	88.9	100.0	8.036	100.0	55.6	66.7	66.7	100.0	9.000*
Customer service	15.6	66.7	0	0	16.7	22.2	33.3	10.320*	22.2	0	33.3	11.1	11.1	4.398
Computer	51.1	33.3	66.7	33.3	58.3	33.3	66.7	3.980	33.3	88.9	22.2	66.7	44.4	10.316***
Interpersonal	35.6	66.7	33.3	50.0	25.0	33.3	33.3	2.449	22.2	33.3	44.4	44.4	33.3	1.358
Problem solving	35.6	33.3	58.3	16.7	33.3	22.2	33.3	4.388	44.4	33.3	33.3	22.2	44.4	1.358
Negotiation, Persuasion, Counseling	11.1	0	8.3	0	0	44.4	0	13.219**	11.1	22.2	11.1	0	11.1	2.250
Oral presentation	8.9	0	25.0	0	0	11.1	0	6.242	11.1	11.1	11.1	0	11.1	1.098
Literacy	17.8	0	25.0	16.7	25.0	0	33.3	3.983	22.2	11.1	0	44.4	11.1	6.993
Decision making	6.7	0	16.7	0	8.3	0	0	3.482	11.1	0	11.1	0	11.1	2.143
Listening	6.7	0	16.7	16.7	0	0	0	4.821	22.2	0	0	0	11.1	5.714
Data organization	22.2	0	33.3	0	16.7	22.2	66.7	7.071	0	33.3	11.1	44.4	22.2	6.429
Planning & organizing	22.2	0	25.0	0	16.7	44.4	33.3	5.625	0	44.4	11.1	11.1	44.4	9.000*
Management	4.4	0	0	0	0	22.2	0	8.372	0	22.2	0	0	0	8.372*
Leadership	8.9	0	0	0	8.3	33.3	0	8.986	0	11.1	0	11.1	22.2	3.841
Data analysis	15.6	0	16.7	0	8.3	11.1	100.0	18.567***	0	0	11.1	66.7	0	23.008***
Team work	2.2	0	0	0	0	0	33.3	14.318**	0	0	0	11.1	0	4.091
<i>n</i>	45	3	12	6	12	9	3		9	9	9	9	9	

Note: Hyper – Hypermarket; Ins – Insurance; Telco – Telecommunication; Bank – Banking; Mn – Manufacturing; Acc – Accounting; CS – Customer Service Manager; A – Administrative Manager; M – Marketing Manager; FA – Finance & Accounting Manager; HR – Human Resource Manager

\*\*\*, \*\* and \* denotes significance at 1%, 5% and 10%, respectively.

**Table-3.** Importance of Personal Attributes Required by Employers: Overall, by Industries and by Job Positions (percentages)

Personal Attributes	Overall	Industries							Job Positions					
		Hyper	Ins	Telco	Bank	Mn	Acc	Pearson $\chi^2$ test	CS	A	M	FA	HR	Pearson $\chi^2$ test
Helpful	15.6	33.3	8.3	16.7	8.3	33.3	0	4.398	33.3	22.2	0	11.1	11.1	4.398
Hardworking	17.8	33.3	25.0	0	16.7	11.1	33.3	3.003	11.1	22.2	0	44.4	11.1	6.993
Responsible	60.0	66.7	75.0	16.7	58.3	55.6	100.0	7.963	44.4	77.8	44.4	55.6	77.8	4.259
Attitude	40.0	66.7	33.3	33.3	41.7	44.4	33.3	1.366	33.3	66.7	44.4	22.2	33.3	4.259
Adaptability	40.0	66.7	50.0	0	41.7	44.4	33.3	5.532	33.3	33.3	33.3	33.3	66.7	3.333
Integrity	24.4	33.3	33.3	16.7	8.3	33.3	33.3	3.038	22.2	11.1	11.1	44.4	33.3	4.091
Patience	17.8	0	25.0	50.0	8.3	11.1	0	6.993	55.6	0	22.2	11.1	0	13.074**
Learn	13.3	0	8.3	16.7	16.7	22.2	0	1.971	11.1	33.3	11.1	11.1	0	4.615
Self control	37.8	33.3	41.7	0	41.7	44.4	66.7	5.058	22.2	55.6	22.2	66.7	22.2	7.185
Awareness	20.0	0	16.7	16.7	16.7	33.3	33.3	2.292	11.1	22.2	55.6	11.1	0	10.278**
Confidence	33.3	0	50.0	83.3	8.3	22.2	33.3	13.625**	33.3	22.2	55.6	33.3	22.2	3.000
Punctuality	33.3	0	33.3	16.7	25.0	55.6	66.7	6.125	11.1	55.6	22.2	44.4	33.3	5.000
Enthusiasm	8.9	0	8.3	33.3	0	11.1	0	6.242	11.1	11.1	11.1	11.1	0	1.098
Cooperative	22.2	0	33.3	0	16.7	33.3	33.3	4.500	0	22.2	0	22.2	66.7	15.429***
Respectful	13.3	0	0	0	8.3	55.6	0	17.837***	0	11.1	22.2	0	33.3	6.538
Adventurous	6.7	0	0	0	16.7	11.1	0	3.929	0	0	33.3	0	0	12.857**
Efficiency	31.1	66.7	50.0	16.7	8.3	22.2	66.7	9.358*	44.4	33.3	11.1	44.4	22.2	3.525
Initiative	4.4	0	16.7	0	0	0	0	5.756	0	0	0	0	22.2	8.372*
Independence	20.0	0	16.7	16.7	50.0	0	0	10.625*	0	22.2	11.1	22.2	44.4	6.111
<i>n</i>	45	3	12	6	12	9	3		9	9	9	9	9	

**Table-4.** Importance of Job Knowledge Required by Employers: Overall, by Industries and by Job Positions (percentages)

Job Knowledge	Overall	Industries							Job Positions					
		Hyper	Ins	Telco	Bank	Mn	Acc	Pearson $\chi^2$ test	CS	A	M	FA	HR	Pearson $\chi^2$ test
Product	20.0	66.7	25.0	33.3	8.3	11.1	0	7.153	77.8	11.1	11.1	0	0	24.167***
Industry	31.1	33.3	33.3	16.7	25.0	55.6	0	4.692	33.3	44.4	55.6	0	22.2	7.673
IT	40.0	33.3	41.7	50.0	41.7	33.3	33.3	0.556	33.3	44.4	33.3	33.3	55.6	1.481
Accounting	33.3	0	33.3	0	50.0	22.2	100.0	12.500**	0	55.6	11.1	100.0	0	31.000***
Management	26.7	0	33.3	0	33.3	33.3	33.3	4.091	0	66.7	22.2	11.1	33.3	12.045**
Legal	28.9	0	33.3	0	41.7	44.4	0	7.004	0	22.2	0	22.2	100.0	29.856***
Marketing	20.0	0	0	50.0	25.0	33.3	0	9.063	0	0	100.0	0	0	45.000***
<i>n</i>	45	3	12	6	12	9	3		9	9	9	9	9	

**Table-5.** Importance of Determinants of Hiring by Employers: Overall, by Industries and by Job Positions (percentages)

Determinants	Overall	Industries						Pearson $\chi^2$ test	Job Positions					Pearson $\chi^2$ test
		Hyper	Ins	Telco	Bank	Mn	Acc		CS	A	M	FA	HR	
Academic	33.3	0	50.0	16.7	41.7	0	100.0	14.625**	22.2	33.3	0	77.8	33.3	13.000**
Personal attributes	60.0	66.7	58.3	33.3	66.7	77.8	33.3	4.144	44.4	100.0	66.7	33.3	55.6	9.815**
Work attitude	33.3	0	41.7	0	33.3	55.6	33.3	6.875	11.1	55.6	33.3	33.3	33.3	4.000
Skills & abilities	53.3	33.3	83.3	50.0	41.7	44.4	33.3	6.272	77.8	44.4	44.4	44.4	55.6	3.036
Job knowledge	40.0	0	41.7	33.3	25.0	55.6	100.0	8.657	33.3	11.1	22.2	66.7	66.7	9.815**
Work experience	53.3	66.7	66.7	66.7	58.3	11.1	66.7	8.281	55.6	55.6	33.3	44.4	77.8	3.929
University	4.4	0	16.7	0	0	0	0	5.756	0	0	0	0	22.2	8.372*
Qualification	20.0	33.3	50.0	0	8.3	0	33.3	12.188**	22.2	33.3	0	22.2	22.2	3.333
Demographic	17.8	33.3	25.0	33.3	16.7	0	0	4.523	22.2	11.1	22.2	33.3	0	3.953
Appearance	4.4	0	0	0	0	22.2	0	8.372	0	11.1	11.1	0	0	3.140
<i>n</i>	45	3	12	6	12	9	3		9	9	9	9	9	

**Table-6.** Employer's Perception on What is Deemed Lacking among Graduates: Overall, by Industries and by Job Positions (percentages)

Lacking in	Overall	Industries						Pearson $\chi^2$ test	Job Positions					Pearson $\chi^2$ test
		Hyper	Ins	Telco	Bank	Mn	Acc		CS	A	M	FA	HR	
Work experience	31.1	33.3	41.7	33.3	25.0	11.1	66.7	4.303	55.6	22.2	22.2	44.4	11.1	5.599
Job knowledge	28.9	33.3	25.0	16.7	16.7	44.4	66.7	4.570	33.3	11.1	22.2	22.2	55.6	4.976
English communication	35.6	66.7	41.7	50.0	33.3	22.2	0	4.388	55.6	33.3	22.2	33.3	33.3	2.328
Soft skill	6.7	0	8.3	33.3	0	0	0	8.839	22.2	0	11.1	0	0	5.714
Attitude	55.6	66.7	50.0	83.3	50.0	55.6	33.3	2.925	66.7	66.7	44.4	44.4	55.6	1.800
<i>n</i>	45	3	12	6	12	9	3		9	9	9	9	9	

**Table-7.** Employer's Suggestions to University to Enhance Employability among Graduates: Overall, by Industries and by Job Positions (percentages)

Suggestions	Overall	Industries						Pearson $\chi^2$ test	Job Positions					Pearson $\chi^2$ test
		Hyper	Ins	Telco	Bank	Mn	Acc		CS	A	M	FA	HR	
Communication	24.4	66.7	8.3	33.3	25.0	33.3	0	6.197	44.4	22.2	22.2	22.2	11.1	2.888
Industrial training	48.9	66.7	41.7	50.0	41.7	44.4	100.0	4.091	55.6	55.6	44.4	55.6	33.3	1.423
Practical preparation	20.0	33.3	25.0	16.7	16.7	22.2	0	1.424	22.2	11.1	22.2	22.2	22.2	0.556
Attitude	11.1	0	16.7	16.7	8.3	11.1	0	1.406	22.2	11.1	0	0	22.2	4.500
Case studies	6.7	0	8.3	16.7	0	11.1	0	2.589	22.2	0	11.1	0	0	5.714
Soft skills	8.9	0	16.7	0	16.7	0	0	3.841	0	22.2	11.1	0	11.1	3.841
Course update	11.1	0	16.7	16.7	0	22.2	0	3.938	0	11.1	33.3	0	11.1	6.750
Standard	4.4	0	16.7	0	0	0	0	5.756	0	0	0	11.1	11.1	3.140
<i>n</i>	45	3	12	6	12	9	3		9	9	9	9	9	

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