A STUDY OF THE IMPORTANCE OF NON-TECHNICAL SKILLS FOR ACCOUNTING FRESH GRADUATES IN MALAYSIA

LAURENCE ONG CHOONG YUAN

MASTER OF BUSINESS ADMINISTRATION

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT

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Laurence Ong Choong Yuan

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By

Laurence Ong Choong Yuan

This research project is supervised by:

Mr. Low Chin Kian
Lecturer
Department of International Business
Faculty of Accountancy and Management

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DECLARATION

I hereby declare that:

(1) This MKMA25106 Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutions of learning.

(3) The word count of this research report is 18,875 .

Name of Student : Laurence Ong Choong Yuan

Student ID : 08UKM08070

Signature : _____

Date : _____

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Abstract

Non-technical skills have been significantly influence on accounting education as a effect of the changing business environment. Recently, most of the employers have stated that fresh graduates nowadays do not meet their expectations in today's volatile economic environment. Eventually, most employers from accounting industry have also highlighted the importance of non-technical skills as a required skill for entry level graduates, in order for them to seriously compete and contribute to the current job market. Therefore, this study examines the expectation gap between employer's expectation and student's perception on the importance of non-technical skills in an accounting profession and the competency of these skills being developed in their degree program. Thus, this study attempted to minimize the expectation gap between various stakeholders in an accounting profession.

In this study, the targeted participants for this survey were 200 students from a local university and 50 managerial personnel from accounting and audit industry concerning the importance of non-technical skills in an accounting profession. The questionnaire survey was design with a 7-point Likert-type scale for survey participants to rank the level of importance of the 23 non-technical skills. Findings shown there is a statistically significant difference between the employers expectation and students perception on the importance of non-technical skills required for an accounting fresh. The top six skills which employers place a higher importance on these skills than students are research skills, appreciate ethical dimension, listening, present and discuss, negotiation skills and understanding group dynamic.

Another statistical finding shown there is a significant difference takes place between student's perception on the importance of these skills and students perceived level of priority given by the university on developing non-technical skills in their degree program. The result from this study indicates that students have placed a higher importance for all the 23 non-technical skills as compared to students perceived level of priority of university develop these skills in their degree program. Therefore, this conclude that employers are more concerned with non-technical skills needed in their organization, while students perceived these non-technical skills are not being developed sufficiently in university accounting programs.

CHAPTER 1

INTRODUCTION

1.0 Background of Study

Referring to a highly competitive job market in today's world, most employers are looking for graduates who posses more than a paper degree. Hence, graduates who are jobless are no longer a surprising sight. It has been one of our nation's major concerns that many graduates are lacking of the personal attributes and right combination of skills which required by the employers, even if these fresh graduates were possess with excellent academic qualifications. Eventually, they were incapable to secure their employment and consequently a distressing number of 30.7% of graduates has remained unemployed six months after their graduation (Khaled, 2009).

Many would have been pointing fingers at the current shape of our educational system. Moreover, universities and colleges somehow have stopped producing students equipped with quality support (Ismail, 2002). However, shall the blame solely lie on the shoulders of the education systems? Will revamping the system help improve the marketability of our graduates? Are current education systems the main reasons affecting graduates employability today and what else are graduates lacking these days?

Changes in technology, the increase in globalisation and the growth of the knowledge economy have caused changes in the business environment (Candy et al., 1994) and a commensurate need to focus on skills development (Bailey, 1997). Albrecht and Sack (2000) identified a number of changes which are of significance to the accounting profession. These include an increased pace of change; shorter product life-cycles and shorter competitive advantage; the requirement for more decisive actions by management; the emergence of new industries and new professional services; increased uncertainty and complex business transactions; changes in financial reporting and relationships with financial markets; increased regulatory activity and an increased focus on customer satisfaction.

From the employer's point of view, graduates are simply lack of non-technical skills required for being outstanding in the workplace (Birrell, 2006). Whatever reasons are there, employers are just looking for a well rounded employee, instead of the traditional graduate with only technical knowledge. Modern employers want new graduates to posses the correct combination of non- technical skills to complement job specific skills, such as accounting skills (Busse, 1992). Employers are therefore seeking a diverse range of skills in new accounting graduates as to maintain a competitive advantage in this industry (Birrell, 2006).

Many researches has challenge to differentiate between the basic skills as opposed to non-technical skills and practical skills (Ashbaugh and Johnstone, 2000) and the meaning of an attribute or skills as defined in an educational context and the accounting employment context (Holmes, 2001). Many researches had suggested some curriculum changes are in need as to close up the gap between education and practice (Bowden and Masters, 1993; Wiggin, 1997; Albert and Sack, 2000). In Spain and the UK, the higher education systems are being enhanced to improve the quality of education and to reduce the expectation gap concerning to employer demands (Hassall et al., 2005). Therefore, accounting educators are being recommended to alter course as to produce accounting graduates with a broader set of

skills and attributes surrounding more than purely technical accounting expertise (Braun, 2004).

The entire research here is to find out what is needed; whether it's an overhaul in the education system or simply an attitude change among students, and to pinpoint the skills needed to make it in the competitive working world.

Therefore, the objective of this research is to find out the requirement of employers in term of hiring, as what skills are employers actually looking for; how certain accounting graduates have been performing are so outstanding in climbing the corporate ladder and what qualities have they possess in the real world; how do employers justify? These questions are very relevant to us as young Malaysian, and therefore the results of this research will benefit not only us, but to every single student wanting to secure a better future (Bradshaw, 1989).

With the proliferation of universities and colleges, subsequently the entry level barriers have been lower, and it is not surprising that the graduates will face even lower employment prospects in the future. With this in mind, discovering the non technical skills that will give the student an edge is essential to the future of us as students.

It is my expectation that this research would bring some light into the gloom of unemployment. It is also anticipated that the research would provide some information on the non-technical skills for students to learn and equipped.

1.1 Scope of the Research

This research covers most employers' expectations on fresh graduates, and the non-technical skills that they expect from a graduate especially that of an accounting graduate required. As such, the research will concentrate on data from audit and accounting firms, which includes some of the employer's feedback. There are many industries that also hire accounting graduates; however, the focus here will only be on the accounting and auditing firms.

The research has successfully collected a total of 50 audit and accounting firm and 200 accounting students for the purpose of this study, and they would be a good representation of the industry in general. This is due to the fact that at the core, an employer's requirements and expectations of graduates do not differ much from company to company. We believe that the amount of companies selected would provide a clear enough representation while at the same time being able to cover any variable factors.

This study was confined to an investigation of non-technical skills required by accounting fresh graduates in performing their tasks. The nontechnical skills were divided into few nominated categories as most important to their career are related to personal and communication skills (including self-motivation, professional attitude, oral and written communication, teamwork and values); analytic/design skills (including analytical and problem solving); appreciative skills (including decision-making and critical thinking); and personal skills and interpersonal skills. Of interest is the perception by students that non-technical skills in work place are a skill necessary for their future careers.

It has always been the researcher interest in exploring on the importance of non-technical skills for accounting fresh graduates. This is because the researcher is an accounting graduate who had personal experience on the un-employability of accounting fresh graduate without

the necessary non-technical skills. Therefore, the scope of this research is to study the essential non-technical skills required for an accounting fresh graduate.

1.2 Problem Statement

The problem statement here refers to an increase of current unemployment rate in the country and what are the major factors affecting these unemployed graduates. It is often said from the point of view from the employers that graduates simply lack the non-technical skills required for being outstanding in the workplace (Cruez, 2009). Whatever the reason, the point of the matter is, employers are looking for a well rounded employee, instead of the traditional graduate with only basic technical knowledge.

Employability of graduates is a key performance indicator for Higher Education Institutions (HEIs) (Morley, 2001). In order to compete in the employment market, HEIs are urged to ensure that they are able to produce employable graduates that meet the needs of the industry (Moreau and Leathwood, 2006; Harvey, 2000). Therefore, many HEIs have attempted to embed skills into the curriculum (Atlay and Harris, 2000). Meanwhile, Hillage and Pollard (1998) stated that employability of the graduates depended on the graduates' knowledge, skills and aptitudes.

Recently, non-technical skills have been one of the employer's main concerned in the recruitment process than student's academic performance (Harvey, 2000). Basically, these skills such as interactive, personal skills and etc are also supported by Purcell et al. 2002 who have revealed that for some employers require more than just technical knowledge. Most of the professional reports express concern that accounting education had over-emphasizes on the technical abilities of graduates rather than other competencies such as non-technical skills (Holmes, 2002).

1.3 Research Question

In today's highly competitive job market, non-technical skills have been a huge influence on the educational environments and exercise new approaches to applications of learning-teaching attitudes. Eventually, a more comprehensive educational process is required in between of lecturers-students. Students have to learn more than technical knowledge, while lecturer has to lead and guide students to relevant non-technical skills development. This led to the development of research question 1:

1. What are the non-technical skills do accounting students perceive as having the highest priority for their career success in the industry?

According to Athiyaman (2001), most of the students felt that non-technical skills were not the main focus in their studies and universities have not develop this skills well for students future career. Therefore, this led to the development of research questions 2:

2. How accounting graduates perceive on the level of importance on these non-technical skills has been developed in their degree program?

Many researches has indicates that employer often demand for students which are able deliver with a more extensive skills instead of just knowing the necessary technical accounting skills. However, employers had been quite disappointed that most universities has fail to deliver on these great demands. This led to research question 3:

3. What are the non-technical skills do employers expect for an accounting fresh graduates in the industry?

As according to many researches, there may be an expectation gap between employers and accounting graduates in a workplace. Employers may require skills which they consider

important and able to fit into their organization environment when comes to recruitment of fresh graduates. This led to the final research question:

4. What are the differences among student perceptions and employers expectations in terms of these non-technical skills that are consider important for a profession in accounting?

1.4 Research Objectives

In general, the purpose of this study is to gain a clearer picture and understanding of the non-technical skills required in a competent accountant. This research measures the importance of non-technical skills for accounting fresh graduates which highly demanded by employers in the accounting industry. The main objectives of this research include:

1. Identify the non-technical skills most required by accounting fresh graduates in their profession.
2. Determine the level of importance of these non-technical skills for accounting fresh graduates in their profession.
3. Provide a basis to develop guideline of non-technical skills required by accounting fresh graduates in their accounting profession.

1.5 Hypothesis

Refer to the above research objectives, the researcher developed the following hypotheses:

Hypothesis 1 aims to test whether there are any difference between students' perception and university education.

H_0: There is no difference in the level of importance of non-technical skills between students' perception and university education

H_1: There is a significant difference in the level of importance of non-technical skills between Students' perception and university education

Hypothesis 2 aims to test whether there are any difference between students' perception and employers' requirement.

H_0: There is no difference in the level of importance of non-technical skills perceived by employers and students

H1: There is a significant difference in the level of importance of non-technical skills perceived by employers and students

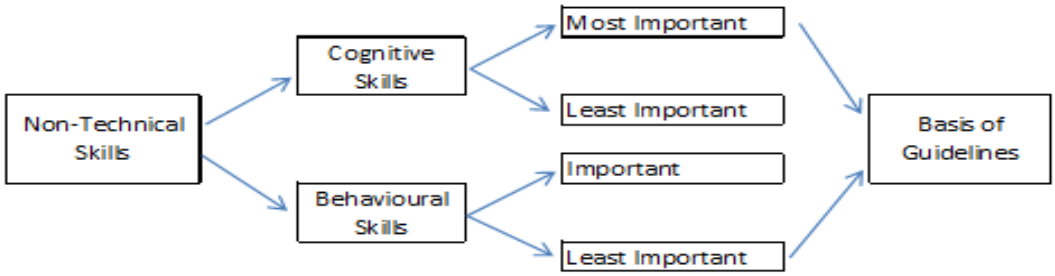
1.6 Significance of the Study

Marketability of graduates is an issue extremely important toward students. Therefore, it is important that we understand what is expected and needed by future employers. In the past, a degree would ensure the security of a student's future. Right now, it is more than just that. This research aims help accounting students, or students in general to gain a clearer picture of the non-technical skills they need to acquire or learn before stepping into the working world.

Meantime, employers will have an increase awareness of the need for them to play a more active role in providing input to institutions of higher learning towards producing human capital to the industry and to address the mismatched between their needs and what the education system produces.

Therefore, results of this research could be used by government or universities to improve current education system, incorporating and focus more on educating these non-technical skills. This in turn would increase the job prospects and marketability of their accounting students. Besides, it will also contribute to the body of literatures which focus on the study of the importance of non-technical skills of undergraduate students.

1.7 Conceptual Framework



The framework depicts the types of information gathered and the flow of analysis of the study. The study identified the most and the least important items in the above skills listed fall into four categories, or 'skills areas', grouped under two main headings:

(i) Cognitive skills

- Analytic and design skills
- Appreciative skills

(ii) Behavioural skills

- Personal skills
- Interpersonal skills

This information formed the basis for formulating a guideline on non-technical skills required by accounting fresh graduates in the accounting industry.

1.8 Limitations of the Study

This study covers, as stated earlier, only accounting graduates. Even though we believe general non technical skills apply to all graduates, some specific skills required by another profession may differ from those of the accounting line, and vice versa.
While our scope is narrowed to only accounting graduates, we are also unable to do a comprehensive research by interviewing every audit and accounting firm in Malaysia due to the time limitation of 9 months. However, we will select samples that will give a clear representation of companies and employers in general.

Most of our research would be carried out by filling up survey questionnaires. Therefore, the accuracy of our results will depend a lot on the truthfulness and completeness of answers given by the respondents.

We had focused our research in Klang Valley as the employability is much higher here. With that in mind, we believe that these firms who participated in our research were sufficient as a representation of most employers' expectations. This is because the skills required by employees of any companies in Malaysia do not differ much for fresh graduates.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter illustrates on the various studies done by researches for the topic of the importance of non-technical skills in accounting. The purpose of this chapter is to provide a better understanding towards this topic as well to draw a complete structure of theoretical framework in this research project.

The level of importance of non-technical skills for an accounting has recently drawn into the attention of various stakeholders (Holmes, 2002). Non-technical skills are considered as life skills which tend to be one of the key to success in terms of job performance. Therefore, employers have categories these skills as the essential skills for their employees besides just knowing only the technical skills (Brown, 2002). Eventually, the expectations for these non-technical skills have arisen are due to the increase of competitive pressure and technology within the accounting profession. These skills are important because for students, they are the future accountant to provide professional advice and services to the public and only with good personal characteristic enable a better career success (Lange, 2000).

Therefore, the literature in this chapter discussed the issues of the importance of non-technical skills in workplace that will lead to a better understanding for readers. This chapter illustrates to needs and importance of non-technical skills in workplace, employers

expectations, the existence of expectation gap, narrowing the expectation gap and the accounting education program.

2.1 Academic Accounting Program

When speaking about education quality, the focuses are mainly on the didactic process. Undoubtedly, Jerzy (2006) believe that qualifications and engagement of the academic staff as well as university infrastructure considerably influence the university's teaching level evaluation.

Universities have now been facing difficulties in meeting the demands for accounting services as according to their academic accounting program to the society. Dr. Merritt (2005) states that various professional organizations and accounting firms have concluded that accountants need more than technical training to fully utilize the vast amount of information they have available to them and advise clients, such as apply general business concepts to specific data, communicate with a wide variety of individuals, and diagnose complex situations and offer solutions.

Leveson (2000) states that non-technical skills developed by universities have created an expectation gap between educators and employers in accounting. The degree of ambiguity in developing these non-technical skills in accounting program has arisen while employers may have a different expectation from employers hiring requirements.

There are some research been done on non-technical skills taught in accounting studies (Boyce et al., 2001; Hill and Milner 2006). The result of this research shows that there is a different approach in perceptions of non-technical skills between the demands from employers and universities and there are fears for lecturing these skills from educators (Jones, 2007). As according to Barrie (2002), non-technical skills, is one of the most important learning courses for accounting students. However, he stated there still many

impediments in understanding the development and teaching of these skills in universities. Barrie (2002) suggested accounting educators must soon identify and develop a thorough theoretical and empirical understanding of these skills. Moreover, it is essential for educators to understand the conceptual underpinning of these non-technical skills in order to develop and lecture in their academic accounting program.

According to Barrie (2002), non-technical skills have become part of disciplinary practice in both universities and workplace as a process of learning and a process of apprenticeship into the accounting profession. Therefore he had indentified the four main categories in developing these non-technical skills in universities academic accounting program. First, identify and understand the importance of non-technical which are necessary into developing in accounting program and to be taught. Second, create a complement understanding of these skills together with other accounting disciplines. Third, views these skills as enabling the translation of universities learning into other settings. Fourth, a more specific and detail understanding of these skills, by setting them as at the heart of scholarly knowledge which can support the creation of new knowledge in accounting program for students learning purposes.

2.2 Non-technical Skills for Accountants

The evolving nature of accounting services has changed the complexion of the technical and academic skills required of accountants. As businesses become more complex and technology advances, accountants must continue to increase their technical knowledge as well as their non-technical knowledge. So, they must work more creatively and apply their technical knowledge to a broader set of abstract academic concepts.

According to Straub (1990) non-technical skills applies to all common jobs, such as communication, cooperating, teamwork and following instructions. Munce (1981) states that the first group consists of behaviours such as displaying social skills, arriving for work on time,

following instructions and effective communication. The second group consists of attitude-related characteristics such as self-confidence, adaptability, ambition, persistence and helpfulness.

There are also some literatures in accounting which recognize the significance of the non-technical skills (Carr, 2006; Lange, 2000; Lucas et al., 2004; Tempone and Martin, 2003; Watty, 2007; Watty et al., 1998). While the importance of broad-based or 'generic' skills such as problem solving, critical thinking and communication are essential, there is a concern to investigate the ways in which these operate in a disciplinary context and this has resulted in more specific accounting-focused competencies. For example, Sin and Jones' (2003) research of the discourse of accountants provides a detailed description of the communication strategies, interactions and thinking skills that enable accountants to solve problems successfully, based on that published by CPA Australia and the Institute of Chartered Accountants in Australia (ICAA). A small selection of this literature has been summarised in below to illustrate the generic attributes required in accounting.

Carr et al. (2006)	Lange (2000)	Sin and Jones (2003)
Functional Competencies ➢ Decision-making ➢ Risk analysis ➢ Measurement ➢ Reporting ➢ Research	***Communication*** ➢ Oral expression ➢ Listening ➢ Writing	***Analytic and Design Skills*** ➢ Identify, find, evaluate, organise and manage information and evidence ➢ Research skills ➢ Analyse, reason and logic, conceptualise ➢ Solve problems ➢ Construct arguments ➢ Interpret data ➢ Ethical reasoning
Personal Competencies ➢ Professional demeanour ➢ Problem-solving ➢ Decision-making ➢ Interaction ➢ Leadership ➢ Communication ➢ Project management	***Analytical Skills*** ➢ Software skills ➢ Problem-solving experience with business information systems ➢ Information system design skills	***Appreciative Skills*** ➢ Evaluate and react to new ideas ➢ Make judgements ➢ Think and act critically ➢ Know what questions to ask ➢ Recognise one's own strengths and limitations ➢ Appreciate ethical dimensions ➢ Appreciate professional behaviour
Business Competencies ➢ Strategic/critical thinking ➢ Industry perspective ➢ Global perspective ➢ Legal perspective ➢ Client focus.	***Ethical Decision-Making*** ➢ Solving ethical ➢ Social problems.	***Personal and Interpersonal Skills*** ➢ Ethical behaviour ➢ Thinking and acting independently ➢ Toleration of ambiguity ➢ Creative thinking
		Interpersonal Skills ➢ Listening ➢ Present and discuss ➢ Negation skills (with people from different backgrounds) ➢ Understanding group dynamics

		➢ Collaboration skills

In summary, the skills such as critical thinking, problem-solving and communication in accounting require a connection between theory and practice, an understanding of the business environment both global and local, and the ability to transfer skills across business contexts. Critical thinking requires an ability to analyse and evaluate, construct an argument and able to think independently with ethical dimension. Problem-solving requires a good conceptual understanding in order to understand the nature of a problem by identifying and analysing its components. Communication requires the ability to communicate via letters memos and reports the interpretation of both financial and non-financial data within a professional and business context. Furthermore, there is an important ethical dimension which requires the ability to apply ethical reasoning and behaviour to all aspects of one's professional life.

A demand for non-technical skills has been the main aspect in the era of globalization, emancipation and technological change. According to Busse (1992), these skills are essential to help employees perform their work more effectively; among these skills are public relations, negotiation and cognitive skills and etc.

Noor Azizi Ismail (2008) identifies that non-technical skills comprise the ability to carry out specific tasks such as computerization, initiative, reading, group work, problem solving, ethical, personal attitudes, communication skills, leadership, accounting and financial skills, analytical, decision-making skill, statistical, project management interpretation, knowledge from other relevant disciplines and awareness on global issues.

Some other researchers such as Clagett (1997), Murnae and Levy, (1996) and Mc Nabb, (1977) state that non-technical skills which needed by employees are reading and counting, learning preparation, writing ability, listening effectively, good self-management, oral

communication, problem-solving, creative thinking, initiative, interpersonal skills, effective leadership, ability to work in group, and technological skills. According to Roger (1996), non-technical skills play a very important role in supporting technical skills because tasks could be carried out better if those skills are mastered.

2.3 The Need for Non-Technical Skills in Accounting Career

Employers have more increase their expectation in terms of the nature of work which made non technical skills important for accounting graduates. According to Cheung and Lewis (1998), employers expect technical workers clutch more work knowledge and positive attitudes during their occupancy, such as perseverance. This view can be extended to include technical, supervision, organizational, and other general requirements which essential for the industry. Generally, organizational programs would be positively assessed if there is an improvement in fields related to skills, attitude and knowledge (Torrington and Tan, 1994).

Many studies has cast a broad net in terms of competitive pressures and technology which have led to expectations that accounting graduates demonstrate additional competencies with non accounting capabilities and skills. These capabilities and skills are important because they enable professional accountant make successful use of knowledge gained through education (Bennett et al., 2000; Leggett et al., 2004).

Professional experts has express concern that accounting education has overstate the technical abilities of graduates to the disadvantage of other competencies, and recommend the need for alternative curriculum strategies, such as seminars, case-based methods, role-plays, and imitation to engage students in developing skills such as critical thinking and creativity (Adler and Milne, 1997).

Hunton (2002) argues that many traditional accounting tasks can be reliably automated, thus, skills such as critical-thinking, problem-solving and analytical skills has increasingly affected an accountant's profession.

An Australian survey states that most employer feedback for fresh graduates were perceived in lacking of non-technical skills, such as problem solving, creativity and business communications (ACNielsen , 2000). Furthermore, Lee and Blaszczynski (1999) reports that although employers felt that accounting knowledge and the ability to use accounting information was no doubt a very important skill for an accountant, nevertheless, they also anticipate this graduates to learn the way of communication, working in a group with good teamwork, solving problems which occur unexpectedly, and utilizing of computer and Internet tools.

A major study of management accounting by Siegel (2000) resulted in employers identifying communication (oral, written and presentation) skills, ability to work on a team, analytical skills, solid understanding of accounting, and understanding of how a business functions as being important for success.

2.4 Importance of specific non-technical skills

Here are some of non-technical skills as stated in Chapter 1.2, scope of research. The following segment involved more specific details regarding the importance of each category.

2.4.1 The Importance of Communication Skills

Communication engages in verbal and nonverbal elements as well as the capability to use language either oral or written to get a message across. Organizational develop customer

relations, employee relations, strategic planning, public relations, etc. and all the above requires effective communication.

According to Roy (2009), the findings of a certified public accountant's service to a client regardless on any service to any client, communication are extremely important. Upon occasion he may communicate orally, or he may present data, or communicate graphically, mathematically, or even pictorially, or by some combination of all of these. But nearly always the mode of communication will be written English. Moreover, Roy agrees to CPA in which the ability to express himself well in terms of communication is more than the hallmark of a graduate, it is a professional necessity. Inability to express his findings in unambiguous, understandable, explicit, intelligible English can be potentially misleading, self-defeating and possibly disastrous to creditors, clients and investors.

Ameen et al. (2010) further states that communication skills were rated as first and second most important factor at the first two promotion levels for both audit and tax. Ameen et al. (2010) also believe that communications skills are vital for success in the accounting profession. Over the past few decades, accounting college curriculum have been highlighted to improve students' communication skills, and many schools have undertaken efforts to address the lacking of oral or written skills, with varying results. The major issue here in the academic circumstances may initially tend to attract students who only believe that mathematical or technical skills are most important, and believe a lack of communication skills will not hinder their progress in the profession (Ameen et al., 2010).

However, Hellinghausen (1998) had emphasize on the importance of language and communication and Myers (1998) study that 70 percent of employers favor the abilities such as to follow instructions, speak fluently and clearly as well as attentiveness (listening skills) during discussions and presentations as very important in the workplace. Eventually, there

are 41 percent of the employers has mention the importance of accountants having the ability to speak and write in other languages when dealing with clients.

2.4.2 The Importance of Analytical and Design Skills

A study by Siegel (2000) found that the majority employees who have skills in solving problems are key issue to succeed in management success. They should be able to view the bigger picture when solving problems. This is achieved by observing at a range of perspectives in order to understand and aware of the present situation. Advanced decision making enables the management development of an organization to function efficiently.

Carnavale (1991) further states that every employees need to be equipped with the skills of identifying problems and making proper decision in order to convene the mission and vision of the organization. This could be achieved through creative thinking and problem solving skills. Problem solving skill is important if employees want to ensure a smooth operation of the company and to avoid conflicts.

2.4.3 The Importance of Appreciative Skills

Siegel (2000) states that technology competency is the key factor to develop effectiveness in performing tasks. Eventually, gathering and assessing information could be done through surfing the internet which able to provide a fast and efficient way of assessing data or information.

Bryant (1997) had stated an effective strategic plan does require accuracy in data collection, plus adequate analysis and development of the specific subject. Eventually, a detailed analysis allows us to better understand on our present situation as well to identify trends and needs of the community in which we operate. Thus, we are able to be more aware of changes in the social

characteristics of the population. For instance, gathering primary data for the purpose of assessment through surveys, interviews, etc. Secondary data gathering is data that was created for other purposes but can be used in the assessment to gain valuable information in decision-making.

According to Davis (1997), most employers have a very high expectation towards graduates' computer literacy level in which 83.3% believed that computer literacy is therefore important in deciding whether fresh graduates are being offered the job.

2.4.4 Importance of Personal Skills

Critical thinking skills are important because they enable students to deal effectively with scientific, social, and practical problems (Shakirova, 2007). By just having knowledge or information is not enough. To be effective in the workplace, students must be able to solve problems, think critically and make effective decisions for their superiors.

Critical thinking is not an innate ability. Although some students may be naturally inquisitive, they require training to become systematically analytical, fair, and open-minded in their pursuit of knowledge. With these skills, students can become confident in their reasoning and apply their critical thinking ability to any content area or discipline (Lundquist, 1999).

Flin R. et al. (1998) defined effective leadership as managerial skills used as a resource to achieve joint task completion within a fully functioning and motivated team through coordination and persuasion. Leadership responsibilities specify the goal-directed coordination of work activities within the organization.

Leadership behavior is less effective if there is no complementary behavior from respective employees. All employees are expected to dedicate their efforts in order to achieve the organization's goals.

Flin R. et al. (1998) indicate that leadership is an aspect of teamwork and the success of a leader directly relates on the quality of his relationship in the team. Employees should feel that they are an important part of a well-organized operation in which their inputs are imperative in achieving overall success in all respective operations.

In distinction to the category cooperation, leadership and managerial skills focuses more on the goal-directed initiative in which the employee under consideration is devoted into management and coordination functions. This includes also positive influences on the motivation and morale towards the employees.

2.4.5 The Importance of Interpersonal Skills

Welfle (2000) found that a personal skill is an individual trait which is part of the communication skills, problem solving and decision making. An excellent personal skill is difficult to tell because the ability to communicate varies from different places.

A study by Centko (1995) revealed that positive interpersonal interaction is the key to success while working or otherwise. He further stated that a lack of interpersonal skills would affect our work efficiencies. It is very important when we are able to increase awareness on our interpersonal relationship with colleagues because this will affect our daily work productivity.

According to Cuevas (1998), having great potentials in non-technical such as interpersonal relationship, project management, consultation, presentation, understanding business

situations and networking should have extra advantage in an organization. Those employees who show a good combination of both the technical and non-technical skills are prime candidates for promotions.

Spoon and Schell (1998) identified a career with better maturity required a combined development of cognitive ability and academic ability. Recognition will be given to employees who are able to solve problems and make complex decision in a difficult situation.

According to Fullan (1990), if any changes are to be made, thus group cooperation is not an important factor if it is not accompanied by suitable management practices that are proper for the specific time, place and situation. Group cooperation can be formed if all the resistance could be avoided.

Teamwork plays a very important role in the relationships with others at all workplace. There are very few tasks and roles which occur in isolation, however, at least some degree of relationship requires with customers and supervisors or an understanding of how the work being completed perfectly. The increased requirements of teamwork happened in every organizational structural change, such as factors indicating the growing complexity and diversity of services and products. All of these changes require workers to be able to function well as part of a team (Kozlowski & Bell, 2003).

Katzenbach (1993) states that team and group work can be formed and behavior of group members could be observed through team and group work. Teams should be the basic unit of performance for most organizations which requires real-time combination of multiple skills and experiences. A team gets better results than an individual which operates and confined job roles and responsibilities.

Katzenbach (1993) also states that organization with good teamwork establishes perfect communications that support initiative and immediate problem solving. Teams must react into more flexible and responsive to changing events and demands. Moreover, a good teamwork is shall often provide a unique social dimension that enhances the economic and administrative aspect of work.

As organizations increasingly rely on teams to generate the solutions required for sustained business success, there has been a surge in research on how these teams should be composed to foster high levels of performance (Kozlowski & Bell, 2003).Self managing work teams are also called independent work groups, semi-independent work groups, self-regulating work teams, or simply work teams (Levine and Moreland, 1991). In co-acting groups, individuals may report to the same supervisor and work close to one another, but they have individually defined tasks (Hackman and Oldham, 1980).

Career success has attracted a substantial amount of empirical work, which has social capital (e.g. Seibert, Kraimer, & Liden, 2001) and structural antecedents (e.g. Melamed, 1996b). The importance of dispositional factors, especially personality, in career progression has been stressed (e.g. Bell & Staw, 1989). The impact of dispositional traits on career success is most likely to be revealed in situations that are of important (*Bell & Staw, 1989*). The majority of situations that individuals encounter in their work careers, including the various job roles they undertake and work environments they become embedded in, fall into this category (Bell & Staw, 1989). Therefore, dispositional characteristics must play a role in career progression, and thus career success must relate to dispositional traits.

Judge *et al*. (1999) made an important contribution towards the establishment of a link between dispositional characteristics and career success when they investigated the relationship of general mental ability and personality with career success by utilizing US cohort data that covered a period of 60 years.

Work related disposition and attitudes includes the traits of neuroticism, extraversion, openness, agreeableness and conscientiousness. Characteristics of neuroticism can be defined as anxiety, suspiciousness, hostility, low confidence and the tendency to experience negative effect. Characteristics of extraversion can be defined as sociability, activity, assertiveness, ambition and the tendency to experience positive affect. Characteristic of openness encompasses imagination, receptivity of new ideas and adventure seeking; Characteristic of agreeableness encompasses altruism, friendliness, sensitivity to the needs of others and modesty; and the last is the characteristic of conscientiousness refers to industriousness, organization, achievement striving and dutifulness (e.g. Digman, 1990).

Somehow rather, some arguments have take place on the importance of skills in the dispositions and attitudes when needed to succeed on the specific job. Some studies highlighted the employers had place more attention on attitudes than academic or technical skills in the workplace, and therefore expectation gap may arise further if there a distinction. (Cappelli, 1992; Ianozzi, 1995). While survey data indicate that employers value "attitudes" (Natriello, 1989; NCEQW, 1995), indeed, some employers may seek workers who have initiative, whereas others might want workers who follow orders.

2.5 Perception from Employers

Eventually, graduates in Malaysia have been in demand for better skills as expected from the employers. Most of the employers will expect graduates which possess different nature of skills, ability to think critically and also be independent. Moreover, it is more preferably for a graduate to have the ability to pick up the necessary skills required when the needs arise, rather than instill them with a fixed set of knowledge skills *(Ong, 2004).*

According to Kevin walker (2005), accountancy firms tend to look for accounting graduates who can be describe as rounded individuals and who have the ability to build trusty

relationship with both client and colleagues which is at the heart of rounded professional personal.

For the past three decades, specific skills required to enter and succeed in the working environment has been highly emphasize by employers. Employers have converse about the importance of necessary skills for employees to perform more effectively. Along with the skills that employers looking for are: communication skills and ability to use common skills in the workplace (Clagett, 1997). These include the ability to calculate, communicate, listen and the ability to work in group effectively. According to Clagett (1997), employers are also hunting for employees who are flexible, comprise good work ethics, adaptive, initiative and posses good leadership. These are some of the necessary non-technical skills that lead employees to have the ability in handling jobs from a broader perspective.

Stasz et al. (1996) believe that most workplace has changed dramatically in response to a new competitive environment which required more flexibility, technological innovations and fast response time. These new workplaces deem to have required workers with more varied skills such as problem solving. Unfortunately, universities are not perceived to produce students who carry such skills, and this has been argued as skills gap between fresh graduates and employers.

According to Carr (2006), employers would expect new graduates employed to be able to enhance the company's good image locally and aboard, while safeguarding the company's trade secret. Most important is the ability to generate profit for the company. The selection criteria that employers base on in recruiting fresh graduates are relevant academic qualifications to the job applied, experience so that less supervision is needed, multiple knowledge and skills which consist of technical skills and non-technical skill.

The growing needs for skilled and knowledgeable employees is highlighted in the job classification in United States. During 1959, jobs were classified as 20 percent professional,

20 percent skilled and 60 percent unskilled. Nevertheless, in 1997, the situation changed where 60 percent of jobs were classified as skilled jobs and only 20 percent unskilled (Ahmad, 1999). Busse (1992), points out the workplace need workers with a broad set of skills, which include, problem solving, listening, negotiating and communication. Busse (1992) further emphasize that employers refer to these competencies as non-technical skills. Modern employers want entry-level employees to possess the correct combination of non-technical skills to complement job specific skills, such as accounting skills (Busse, 1992 and Young, 1986).

2.6 Expectation gaps

Technical skill alone may be meaningless without knowing how to dress and smile." They may end up being just as hard to employ as those who learned no skills at all *(*Anonymous, 2009).

On the qualities of new graduates now-a-day, employers are starting to have predicament toward the overwhelming of fresh graduates who don't meet the demands of the public or private sector. Local graduates with high qualifications unable to speak proper English and refused to start with lower position or lower pay.

The quantity of graduates continues on an upward trend. Expectation gaps of soft skills available among accounting graduates and what employers expect graduates to have are derived from problems such as curriculum revision. Fresh graduates are not yet sufficient for today's job market for accounting professionals.

The educators and Certified Public Accountants (CPAs) are not as satisfied with the effectiveness of curriculum in developing these business skills. According to Ong (2004), the shift from teaching students how to think, to teaching them what to think, coupled with

inadequate teaching staff leads to the conclusion of producing graduates of insufficient quality. The quality of design is satisfactory but the quality of conformance needs improvement.

2.7 Existence of Expectation Gaps

Various studies confirm the existence of the expectation gaps between employers and accounting graduates.

The gap exists where most of the accounting graduates lack non-technical skills. Conflicting views have been expressed regarding the role of accounting education in narrowing this gap.

The phrase "Expectation Gap" was defined as the difference between the levels of expected performance or skills required by the employers and that possessed by the accounting graduates. The findings on different perceptions among these employers whether is from accounting company or other business company were consistent and all showed the existence of expectation gap.

Nowadays, big organizations or corporate companies look for employees who give priority to co-curricular achievements and community service as they can gauge commitment and responsibility from involvement in such activities. Henry (2005) founds that employers want those who have non-technical skills rather than just academic qualifications.

Nearly 60,000 graduates in general are unemployed in today's market environment. There are three main reasons graduates cite for not getting the jobs. According to Cruez (2006), these are no job experience, poor command of English language and lacking in communication skills and universities major not relevant to job available. Professor Datuk

Dr. Hassan (2005) said, "We want 'human accountants', not just graduates who are technically competent."

2.8 Narrowing Expectation Gap (Basis of Guidelines)

Accounting has been seen as a highly respected profession throughout the past few decades. Eventually, it is now no longer sufficient for an accountant just knowing the performance of technical skills such as narrowly defined tasks and routine methods or procedures. To be effective in the workplace tone must satisfy customer and organizational needs.

Most of the literature had reported that employers and students always have different expectation or perception on having to be successful in an accounting career. According to Kim et al. (1993), when comes to recruitment, employers are very selective, they will look into the four very important criteria which are personal qualities, communication skills, graduates motivation and their interest in accounting job. However, there were some misunderstandings recently when graduates only thought of examination results is the most important criterion for employers in interviews rather than having good personal qualities and communication skills. In another study, Radhakrishna and Bruening (1994) had study between employers and graduates perceptions in the importance of skills focusing on interpersonal, communication, technical, computer and business-economic skills, and results shows that students have rank all above mention skills higher employers.

However, Gabric and MacFadden (2000) found out that the only top three non-technical skills have ranked highly by both employers and students, which are verbal communications, listening skills and problem solving skills, but for other non-technical skills have different expectation gap in between. Leveson (2000) suggested oral communication has been the key communication skills especially in accounting and business industry, whereas written

communication is the only focus by local universities. Hence, this may be the reason causing an expectation gap between employers and accounting graduates in the industry.

According to Merrit (2005), accountants must be able to apply their technical skills to handle an increasingly changing, non-routine set of situations and events. Accountants who are occupied in a high complexity and competitive work environments must commit themselves to uphold their skills through continuous learning. They must have more concerned on issues such as ethics, professionalism, effective communication, and a positive collaboration within all stakeholders.

Furthermore, the education institution should maintain close relationship with industry to get latest input of business development and requirement, emphasize and train students with non-technical skills in addition to technical skills. Hence they must incorporate more case studies and lengthen the period of practical training to give more exposure to student of the real business world (Noor Azizi Ismail, 2008).

For many employers, they prefer students to undergo an internship programmed. Although interns are paid less, focusing just on supplementary work in the office, but they can be trained with more basic skills which they may not able to experience in their universities. According to Carr (2006), a graduate's faults can be easily discovered during an internship and be guided appropriately. Thus, we can have a win-win situation here; the intern gains employability, another side, the employer gains low-cost labor and future employers gain graduates that have already been road-tested.

2.9 Conclusion

This chapter has discussed previous work on the changing requirements of employers, the challenges faced by institutions of higher learning in response to the changing requirements

and the need for non-technical skills in the accounting career. It also presented the importance of specific non-technical skills discussed by various researchers and how those skills enhanced employability and equipped accounting graduates for their career.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

Various research methodologies were to be discusses in this chapter and the purpose of this study was to examine the perceptions of students and employers regarding the importance of non-technical skills for accounting fresh graduates in workplace. This study investigated the perceptions of students from a local university in Malaysia and employers located in Klang Valley. This section provides a description of the methods and materials that were used in data collection and analysis for this study. The scopes of discussion in this chapter are research design, research methods, sampling, pilot study, questionnaires designs and data analysis technique will be presented at the end of this chapter.

3.1 Research Design

According to Zikmund (2003), research data and information are required to be collected and arrange into a master plan in order for further analyzing purpose. Two types of research which normally researches uses are descriptive research and explanatory research. De Vaus (2001) describe that descriptive research is focused on what is going on while explanatory research is concern why is it going on.

Before this research study can be carried out, we need to understand how its design is developed and how the research is to be carried out. What we would do is to set out a systematic design to be followed throughout the research. This means a proper paradigm has to be in place.

An initial survey was developed based on the literature view and the drafted survey was pre-tested with several employers in accounting firm as to confirm the questionnaires are suitable for the survey in Klang Valley. After confirmation on the questionnaires from the pre-test survey, two survey methods have been used in this research and there are mailing surveys and web based survey. This survey has been send during March 2012 till September 2012. Upon completion of the survey, an appreciation massage will be send to the participants.

This research is design based on quantitative method. Meantime, primary data are to be collected through mail survey and field survey as to identify the importance of non-technical skills for entry-level accountants employed in audit firms located at Klang Valley. Thus, descriptive method has been used in this research to describe the characteristics of a population or phenomena (Zikmund, 2003). T-test and Paired test used to describe the relationship between employers expectation and students perception.

Primary and secondary data has been used in this research. For primary data, questionnaire has been used for survey purpose. Eventually, questionnaire was the main research methods used which are all closed ended question. In additional, interview which the open ended question also used to provide more detail information to support information gain from the questionnaires. For secondary data, books, newspaper, published electronic sources, government records and journals has been used for survey purpose. The uses of secondary data have helped the researcher to better focus and clarify the research question.

3.2 Data Collection

This survey was e-mailed during March 2012 till September 2012 to employers associated with accounting and audit firm in Klang Valley and students from a local university. Duplicate e-mailing survey and field survey were removed from employers and students listing. The survey was completed on an anonymous basis. Seventy three surveys was mail to employers and a reminder sent weekly after the initial mailing. A total of 50 responses were obtained from accounting and audit employers, yielding a response rate of 68%. Meantime, two hundred and twenty surveys were distributed to accounting students from a local university to answer the questionnaire on the spot. Thus, a higher response rate were obtained with a total of 200 responses survey collected, yielding a response rate of 90%

Eventually, a web-based survey is another alternative method instead of just relying on mailing survey used in this research. The reason of using web-based survey is because these surveys are easier to complete than paper surveys, more time and place flexibility for respondents to respond, and there is a greater level of confidentiality because there are no handwritten comments.

However, there are also some minor disadvantages such as potential participants will easily overlook on the invitation respond and there may be technology problems occur from either side (Ballantyne, 2000). Muffo, Sinclair, and Robson (2003) reported that those disadvantages stated above would be easily overcome by sending more reminders to potential respondents and send by mail if there has a technology failure happen from the participants. In addition, more advantages favor towards online surveys as they generally have faster response rate and cost effective as compare to mail surveys. Data input errors can be further reduces through web based survey.

3.3 Population and Sampling

Sampling is the process of taking parts from defined population in order to examine this part. The sampling technique used is the quota sampling; a total of 50 employers or recruiting managers from 50 accounting and audit firms in Klang Valley were selected, as they have been employing accounting graduates for the past five years. Employers or recruiting managers from each of this organization were invited to participate in this research. Participants were approach and asked to participate voluntarily.

In order to obtain students perception on the importance of non-technical skills, the sample was therefore drawn from a local university in Klang Valley, Malaysia. A total sampling of 200 accounting students from a local university was selected for this survey and participants were approach and asked to participate voluntarily.

This survey was carry out in this respective university as they are producing the most accounting graduates in Malaysia as compared to all individual universities here. Since this research is interested in understanding the perception of accounting students regarding the importance of non-technical skills and the relationship between their university studies on non-technical skills, therefore, all accounting students which participate in this survey must be year two and above as they have attended soft skills subject and especially accounting students from year three and year four have experience an internship program.

3.4 Primary Data

Primary data is basically data collected by the researcher specifically for the research. They are obtained as a result of specially conducted field research, for solving a specific problem; the collection is performed by surveying on experience personnel, and experimental research

conducted for a part of the total population under consideration. For the purpose of this research, we will base on questionnaires to obtain data through the survey.

3.4.1 Questionnaires

Questionnaire methods of data collection can possible guarantee relative confidentiality and provide more truthful and objective responses (Ary et al., 1990). Furthermore, the questionnaire was used because the lower cost if compared other method. This view is shared by Linda & Eve (1995) who noted that the single greatest advantage of self- administrated questionnaire is their lower cost compared other method. In additional, selecting questionnaires as one of our methods can allows us to reach a wider number of respondents and the data can be statistically analyzed to obtain findings and one of the cheapest and quickest methods of data collection and may provide the most accurate results as the recipient may choose to be anonymous. It also allows reasonable time to think and go through the questions thoroughly before answering.

The questionnaire retained the non-technical skills used in Jones and Sin (2003), instead of Car (2006), Lange (2000) in this study. Researcher has decided to select the non-technical skills adopted by Jones and Sin (2003) as the non-technical skills in this journal provides a detailed description of interactions in terms of skills. There are four main categories which mark as Analytical and design skills, appreciative skills, personal and interpersonal skills. With this detailed and comprehensive skills listed by Jones and Sin (2003), researcher are able to investigate into a more specific accounting focused competencies for entry-level accountants.

The questionnaire consisted 6 parts:

- Section A, B, C & D: Non technical skills categories.

  Non-technical skills category: Likert Scale was used to indicate their level of agreement with statements that express a favorable or unfavorable attitude toward a concept being measured, where 1 = "Not important at all" to 7= "Very Important." Respondents are given the option of choosing their pre-determined answers. Although close-ended question may be difficult to design but the data are easier to capture and transform into statistic method for future analyze with statistical packages (Zikmund, 2003). Employers or hiring superiors of a company and students are required to rank the importance of the specific non-technical skills based on their experience and understandings.

- Section E : Students are required to rank the perceived level of priority given by the universities on developing the following non-technical skills in their degree program.
- Section F : Demographic information of employers or hiring superiors of a company and students

3.4.2 Measurement Scales

According to Zikmund (2003), measurement scale in this research refers to a series of categories which represent in quantitative value such as people, age, gender and these items are able to reflect the quantification of the characteristics as being measured.

There are few types of measurement scales being used by researchers such as interval scale, nominal scale, ordinal scale and ratio scale. Eventually, nominal scale, ordinal scale and Likert scale is being used in this research to measure the questionnaires.

Zikmund (2003) has stated that nominal scale only uses numbers as labels to indentify and categories objects, individual sex or age and events on a scale. Thus, nominal scale is considered as the simplest type of scale as compare to other scales. In this research, nominal scale is used to measure the demographic information given by the participants such as gender, races, working experience, course attained and year of study.

Zikmund (2003) also stated that an ordinal scale is scale for the purpose of ranking an object according to their magnitudes such as different group of age, preference and hierarchy positioning.

According to Burns et al. (2008), Likert scale provides more options for respondent to select their level of preference from the questionnaires. Eventually, Likert scale is also consider an ordinal scale. In this research, seven point Likert scale is being used in the research questionnaires for participants to rank. The participants are required to rank the importance of non-technical skills for accounting fresh graduates from 1=most important till 7=least important for each skills.

3.5 Secondary Data

Secondary data are existing data, documents, records, or specimens that have been collected, or will be collected solely for non-research purposes (such as manufacturing industry or diagnosis) and are in existence prior to the beginning of the study. Although, the secondary data is limited compare to the primary data which can get more detail and updated information, but it very important for us to collect for information other than the current research problem and many evidence to support this research. The secondary data utilized in this research were mainly in the form of document such as business articles, periodicals

journals, and others. In additional, the researcher also utilized some statistic or data obtain from newspaper to support the current research.

3.6 Data Management

Data were analyzed using the Statistical Package for the Social Sciences were the usage of this program to simplify the computation of data analysis in the form of statistic and quantitative.

Frequencies procedure provides statistic and graphical displays that are useful for describing type of variables. The frequencies report can be suppressed when a variable has distinct values. Therefore the results can be display in the form of percentages.

The cross tabulations or 'crosstabs' procedure relates to two ways and multi ways tables and provide a variety of test and measures of associations for two ways tables. Then, Crosstabs' statistics and measures of two different groups of respondents are computed for two ways tables which are to specify a row and a column and a layer factors, the crosstabs procedure forms one panel of two different groups of respondent statistic measures for each values of the layer factors.

Finally, the purpose of the table is to identify the expectation gap of the non-technical skills perceived by employers and students. As well as, positive and negative results which consequently disclose their relationships of expectation.

3.7 Data Analysis Technique

The data that is collected through the questionnaire will elaborate on the various statistical tests using the Statistical Package for the Social Sciences (SPSS) Version 17.0. A range of

analysis in the SPSS program was used to confirm the consistency of the information and establish the reliability of the information received.

For questionnaire, descriptive statistical measurement, T-test and Paired test was used such as mean and frequency were used to analyze data in Section A, B, C, D, E and F of the questionnaire.

3.7.1 Descriptive Statistic

The Descriptive Statistic was used to analyze the demographical characteristics in the Section F, which consists of the gender, age and working experience of the respondents. The demographical factors were analyzed by this statistical method in the form of percentages (%) and frequencies (n). The descriptive statistics is in the form of summarizing data in calculating the distribution of respondent profiles (Zikmund, 2000, p.436). The Descriptive Statistic was used because transformed a set of number or observation into indices that describe or characterize the data (Schumacher & McMillan, p.192).

Besides, mean is "an average that all of us have been exposed to" (Zikmund, 2000, p.369). The value of mean will be calculated on Section A, B, C, D and E of the questionnaire. The questionnaires that are collect will key in into SPSS according to the certain variables. This is to measure the level of importance in which skills employers and students perceived the most.

3.7.2 Reliability Analysis

In statistical term, reliability analysis reflects on the ideas that individual items should produce results consistently with overall questionnaires (Zikmund, 2003). However, Zikmund (2003) also stated, imperfection occurs in the measuring process when there is a low reliability index shown from the reliability test, thus this results may negatively influence other measurement test as well in the overall research project.

According to Sekeran (2003), the reliability also indicated the stability and consistency with which the survey measured the concept and facilitated to access the "goodness" of measures. Eventually, the reliability test is to ensure the questions asked are valid and variables able to be measure.

Hair et al. (2003) stated that reliability tested the correlation among the variables in the survey and reflected in the table indicated by Cronbach's Alpha or Coefficient Alpha. A stronger correlation between the variables reflected a higher coefficient range and reliability on the research result. The rules of thumb for Cronbach's Alpha coefficient shall a researcher decide for acceptance or rejection is based on the minimum value of reliability. In order to have a valid research, researchers will only accept a reliability of 0.70 and above of alpha coefficient, in other words, the scores should be more than 70% consistencies.

3.7.3 Independent T-test for the Level of Importance of Non-Technical Skills

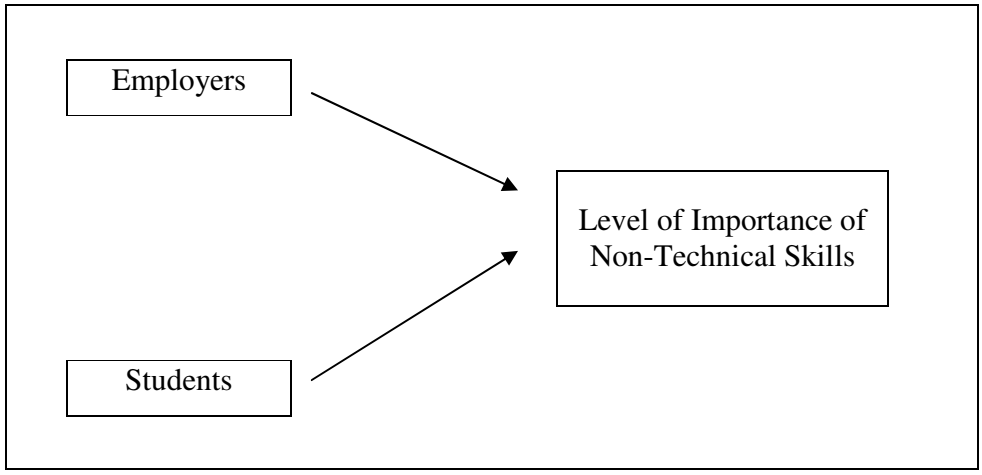


Figure 1: Independent T-test

Independent sample t-test has been used in this research to identify whether there is a significant difference in terms of the level of importance of non-technical skills between the two groups, employers and students respectively. Means of all the non-technical skills will be used to measure in the independent sample t-test. Finally, the outcome will have the indication shown whether the expectation of employers and students are significant different or vice versa. In order to run the sample t-test, it is assumed that the population is normally distributed. However, the population is unobservable, so central limit theorem will apply.

3.7.4 Paired Sample Test on the Level of Importance

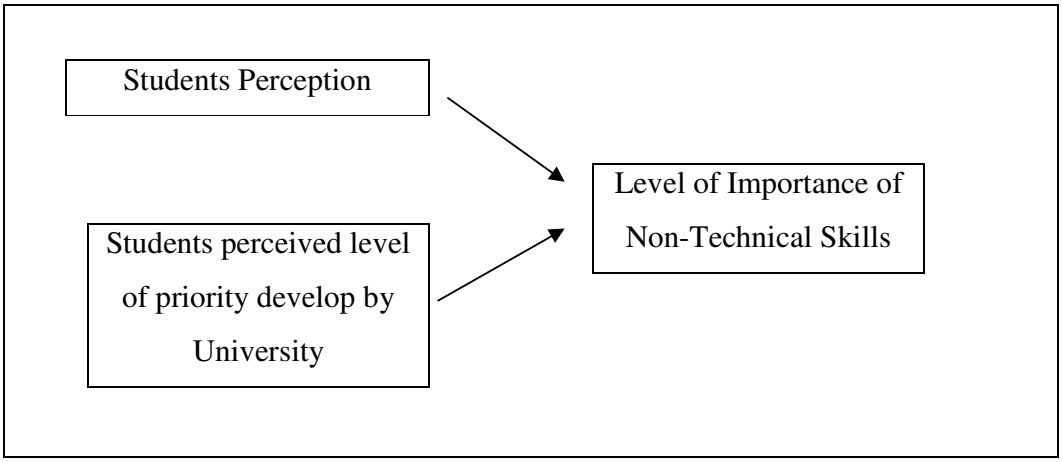


Figure 2: Paired Sample Test

Paired sample test has been used in this research to identify whether there is a significant difference in terms of the level of importance of non-technical skills as perceived by the students. Paired sample test shows the Pearson correlation between students perceptions and students perceived level of priority given by the university on the development of non-technical skills in their degree program. Means of all the non-technical skills will be used to measure in the paired sample test. Finally, the outcome will have the indication shown whether students perception and students perceived level of priority given by the university of the development of non-technical skills are significant different or vice versa.

3.8 Conclusion

The purpose of this study was to collect and analyze data concerning the importance of non-technical skills for accounting fresh graduates. Therefore, this chapter discussed all the relevant methods and instruments being used for in this research. The method of research analysis was presented from the structure of this research being design until the various type

analysis method used to analyze the collected survey data. Thus, the results of all the survey data will be compiled, analyze, discussed and presented in chapter 4.

CHAPTER 4

RESEARCH RESULTS AND FINDINGS

4.0 Introduction

The purpose of quantitative comparative research methods was to compare the findings of the importance of non-technical skills for accounting fresh graduates. The population in this study consisted of employers, managers and hiring superiors in accounting and audit firms, accounting students in year 2, year 3 and final year students. The comparisons between these groups allowed an examination of the differences in the level of importance for the 23 non-technical skills rank between employers and students expectation.

This chapter presents the study's quantitative results in narrative and summary tables. This analysis is presented in four parts. First, a demographic profile of the study's participants is presented. Second, t-tests of means were used to test the expectation gap between accounting and audit firms and accounting students in Klang Valley. Third, an analysis of Paired-test was used to test on students expectations on the importance of non-technical skills and students perceived level of priority given by the university on developing the following non-technical skills in their degree program.

4.1 Descriptive Analysis

All the return survey questionnaires amount of 250 sets have been filtered, while there is no invalid answers, irrelevant participation or incompleteness. Following sections overview the several respondents' demographic information, including gender, age, race, and student's education qualification as well as accounting and audit personnel's working experience.

4.1.1 Frequency of Respondents Based on Accounting and Audit sector and Accounting Students

Both web-based and mailing survey instruments on importance of non-technical skills for accounting fresh graduates was administered to a random sample of 85 accounting and audit firms and a distribution of survey questionnaires to 238 accounting students. Surveys were returned by 50 of 85 accounting and audit respondents (59%) and 200 of 238 accounting students (84%). The response rate is shown in table 1 below.

Table1: Frequency of Respondents

Sample group	Survey sent	Survey Returned	Response rate
Employer (Accounting and audit firm)	85	50	59%
Accounting students	238	200	84%
Total	323	250	77%

(Source: Developed for research)

4.1.2 Frequency of Accounting and Audit Respondents Based on Gender Group

Accounting and audit respondents provides data on gender, race/ethnicity, age and working experience. Same goes to accounting students provides their gender and race/ethnicity, age and year of study throughout the survey.

Accounting and audit respondents supplied information on their own expectation in terms of hiring requirements. There are 70% of the 50 respondents are male, whereas 30% are females. The summary of gender for respondent is shown in table 2.

Table 2: Accounting and Audit Respondent Gender Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	35	70.0	70.0	70.0
	Female	15	30.0	30.0	100.0
	Total	50	100.0	100.0	

(Source: Developed for research)

4.1.3 Frequency of Accounting and Audit Respondents Based on Ethnic

Among the 50 respondents who listed their racial and ethnic backgrounds, 8% are Malay, 84% are Chinese and 8% are Indian. Most of the accounting and audit firms in Klang Valley had more Chinese as compared to other races. The summary of the Ethnic for respondent is shown in table 3.

Table 3: Accounting and Audit Respondents Ethnic Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	4	8.0	8.0	8.0
	Chinese	42	84.0	84.0	92.0
	Indian	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

(Source: Developed for research)

4.1.4 Frequency of Accounting and Audit Respondents Based on Age Group

Age and working experience does carry a very influencer role in the reliability of the survey obtained. Of the 50 respondents, 32% of the respondent's age range between 21-30, 58% age range between 31-50 and 10% age range between 51-60 as shown in table 4.

Table 4: Accounting and Audit Respondents Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	16	32.0	32.0	32.0
	31-40	18	36.0	36.0	68.0
	41-50	11	22.0	22.0	90.0
	51-60	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

(Source: Developed for research)

4.1.5 Frequency of Accounting and Audit Respondents Based on Working Experience

In terms of working experience, 36% of the respondent had 10 years or less of working experience and 64% of the respondent had more than 10 years in accounting and audit industry. The more working experience they had, the more they encounter in hiring and the requirement of the most suitable graduates for their company.

Table 5: Accounting and Audit Respondents Working Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-4 years	9	18.0	18.0	18.0
	5-10 years	9	18.0	18.0	36.0
	>10 years	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

(Source: Developed for research)

4.1.6 Frequency of Accounting Students Based on Gender

Accounting students shared information on themselves, their institutions, and their degree program. Among 200 students, 29% were male and 71% were female as shown in table 6.

Table 6: Accounting Students Gender Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	58	29.0	29.0	29.0
	Female	142	71.0	71.0	100.0
	Total	200	100.0	100.0	

(Source: Developed for research)

4.1.7 Frequency of Accounting Students Based on Ethnic and Age

In addition, 5% of the students from the survey were Malay, 92.5% were Chinese and 7% were Indians. Most of the students studying in this university were Chinese and that the reason the survey result indicates most of them are Chinese as shown in table 7. All accounting students participate in this survey were age between 21-30 as shown in table 8.

Table 7: Accounting Students Ethnic Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	1	.5	.5	.5
	Chinese	185	92.5	92.5	93.0
	Indian	14	7.0	7.0	100.0
	Total	200	100.0	100.0	

(Source: Developed for research)

Table 8: Accounting Students Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	200	100.0	100.0	100.0

(Source: Developed for research)

4.1.8 Frequency of Students Based on Course and Year of Study

As this research is to study the importance of non-technical skills for accounting fresh graduates, therefore, all students selected for this survey were all accounting students all shown in table 9. Furthermore, of these 200 accounting students, 38% of the students were in their year two accounting degree program, 39% were in their year three and 23% were in their final year of their degree program. Students who have a better picture on their degree program has been selected to participate in this survey as they have attended soft skills course especially final year students which had went for internship program.

Table 9: Accounting Students Course

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor of Accounting	200	100.0	100.0	100.0

(Source: Developed for research)

Table 10: Accounting Students Year of Study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 2	76	38.0	38.0	38.0
	Year 3	78	39.0	39.0	77.0
	Year 4	46	23.0	23.0	100.0
	Total	200	100.0	100.0	

(Source: Developed for research)

4.2 Reliability Analysis

Reliability analysis allows researchers to identify the properties of measurement scales on the variables of all the non-technical skills which they correlate. Thus, the reliability analysis procedure evaluates the reliability of the measurable scale commonly used as to provide information about the relationships between variables in the scale.

4.2.1 Reliability Analysis on Employer's Expectation

Now, a total of 50 surveys obtained are to be test on the reliability of the employer's expectation on the importance of non-technical skills. Meantime, table 13 indicates the SPSS output on the reliability analysis results for the fear of computing subscale. The values in the column labeled Corrected Item-Total Correlation are the correlations between each item and the total score from the questionnaire. As according to table 12, all data have item-total correlations above 0.35, therefore, all non-technical skills for the survey obtained are overall scale perfectly. None of the skills are with low correlations, and none of the skills shall be dropped. The values in the column labeled Cronbach's Alpha if Item Deleted is the values of the overall if that item isn't included in the calculation. As such, they reflect the change in Cronbach's that would be seen if a particular item were deleted. The overall is 0.912 as shown in table 11, and so all values in this column should be around that same value.

Nevertheless this indicates a good degree value of reliability. As a final point, none of the skills required to be removed at this stage.

Table 11: Employer's Expectation Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.912	.913	23

(Source: Developed for research)

Table 12: Employer's Expectation on Non-technical Skills Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Identify, evaluate, organize and manage information and evidence	125.10	153.969	.498	.607	.909
Research Skills	125.36	153.419	.481	.586	.909
Analyze reasons and logic conceptualize	125.42	153.147	.467	.667	.910
Solve problems	125.24	154.145	.451	.795	.910
Construct arguments	125.50	153.071	.450	.613	.910
Interpret data	125.14	152.735	.487	.708	.909
Ethical reasoning	125.22	148.951	.619	.676	.907
Evaluate and react to new ideas	125.30	148.908	.550	.712	.908
Make judgments	125.28	147.349	.703	.771	.905
Think and act critically	125.26	152.604	.468	.718	.910
Know what question to ask	125.18	151.865	.482	.591	.910
Recognize one own strengths and limitation	125.06	153.445	.390	.492	.912
Appreciate ethical dimensions	125.34	149.086	.501	.687	.909
Appreciate professional behavior	125.08	149.585	.583	.844	.907
Ethical behavior	125.10	151.235	.496	.810	.909
Thinking and act independently	125.18	149.293	.625	.758	.907
Toleration of ambiguity	125.14	151.266	.541	.801	.908
Creative thinking	125.14	149.674	.532	.666	.909
Listening	124.86	150.245	.545	.664	.908
Present and discuss	124.96	148.325	.673	.715	.906
Negotiation skills	125.00	150.857	.592	.730	.907
Understanding group dynamic	124.98	150.102	.570	.749	.908
Collaboration_skills	125.08	151.136	.574	.760	.908

(Source: Developed for research)

4.2.2 Reliability Analysis on Student's Perception

A total of 200 surveys obtained from the students to be test on the reliability on their perception on the importance of non-technical skills. Meantime, table 14 indicates the SPSS output by showing all data have item-total correlations above 0.50; therefore, all non-technical skills for the survey obtained are overall scale perfectly. The overall of Cronbranch's Alpha is 0.935 as shown in table 13, and so all values in this column should be around that same value. Nevertheless this indicates a good degree value of reliability. As a final point, none of the skills required to be removed at this stage.

Table 13: Student's Perception Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.935	.936	23

(Source: Developed for research)

Table 14: Student's Perception on Non-technical Skills Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Identify, evaluate, organize and manage information and evidence	121.33	266.142	.524	.498	.934
Research Skills	121.85	265.760	.502	.404	.934
Analyze reasons and logic conceptualize	121.24	264.394	.637	.577	.932
Solve problems	121.00	262.497	.689	.611	.931
Construct arguments	121.60	261.488	.613	.508	.932
Interpret data	121.17	264.272	.585	.530	.933
Ethical reasoning	121.33	259.939	.613	.594	.932
Evaluate and react to new ideas	121.44	263.323	.636	.538	.932
Make judgments	121.16	264.865	.616	.547	.932
Think and act critically	121.03	262.949	.660	.581	.932
Know what question to ask	121.27	266.146	.558	.447	.933
Recognize one own strengths and limitation	121.26	265.882	.585	.475	.933
Appreciate ethical dimensions	121.61	264.832	.553	.535	.933
Appreciate professional behavior	121.33	265.398	.563	.493	.933
Ethical behavior	121.23	263.193	.533	.515	.934
Thinking and act independently	121.13	261.048	.627	.549	.932
Toleration of ambiguity	121.30	264.121	.584	.531	.933
Creative thinking	121.36	262.552	.585	.490	.933
Listening	121.23	263.213	.616	.592	.932
Present and discuss	121.21	263.772	.621	.585	.932
Negotiation skills	121.33	262.313	.619	.633	.932
Understanding group dynamic	121.28	261.459	.698	.703	.931
Collaboration skills	121.18	264.457	.645	.562	.932

(Source: Developed for research)

4.2.3 Reliability Analysis on Student's Perceived Level of Importance given by the University on Developing Non-technical Skills in their Degree Program

A total of 200 surveys obtained from the students to be test on the reliability on their perceived level of importance given by the university on developing non-technical skills in their degree program. Meantime, table 16 indicates the SPSS output by showing all data have item-total correlations above 0.50; therefore, all non-technical skills for the survey obtained are overall scale perfectly. The overall of Cronbranch's Alpha is 0.955 as shown in table 15, and so all values in this column should be around that same value. Nevertheless this indicates a good degree value of reliability. As a final point, none of the skills required to be removed at this stage.

As conclusion, all the 3 dimensions achieved a Cronbach's Alpha Coefficient of at least 0.90. Therefore, it can be said that this research gave a highly reliable result of survey.

Table 15:Reliability Statistics (University's Education)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.955	.955	23

(Source: Developed for research)

Table 16: University's Education on Non-technical Skills Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
E1	115.63	345.487	.678	.614	.953
E2	115.96	340.640	.715	.635	.953
E3	115.66	340.275	.727	.694	.953
E4	115.48	343.523	.734	.641	.953
E5	115.91	342.992	.664	.545	.954
E6	115.58	349.659	.596	.473	.954
E7	115.73	344.499	.656	.648	.954
E8	115.68	343.935	.695	.600	.953
E9	115.57	344.014	.722	.632	.953
E10	115.44	338.833	.731	.678	.953
E11	115.78	340.877	.698	.585	.953
E12	115.68	342.026	.713	.585	.953
E13	115.87	343.498	.668	.642	.953
E14	115.61	343.289	.672	.571	.953
E15	115.59	343.031	.649	.692	.954
E16	115.51	342.423	.695	.640	.953
E17	115.75	346.075	.640	.554	.954
E18	115.75	341.139	.637	.564	.954
E19	115.56	348.278	.616	.535	.954
E20	115.53	349.412	.585	.540	.954
E21	115.76	341.363	.712	.681	.953
E22	115.64	344.202	.700	.643	.953
E23	115.54	343.260	.701	.660	.953

(Source: Developed for research)

4.3 Summary of the Importance of Non-technical skills based on Accounting Students of a local University

Accounting students of a local university were asked to rank the level of importance of the twenty three non-technical skills that they perceived to be most important for their career in accounting industry. They were asked to indicate their perceptions of emphasis on a 7 point Likert scale, anchored from 1 ‘not important at all’ to 7 ‘very important’. The items were based on the ‘skills set’ devised by Sin and Jones (2003). Data from the questionnaires were analysed further using SPSS version 17.

These skills were subsequently rank by respondent as most, second most, third most, fourth most, neutral, least important and not important at all. Response frequencies are presented as percentages. Eventually, as shown in table 17 and figure 3, there are three non-technical skills which accounting students from a local university rank 30% and above as most important as they perceived in the working environment. This skills are solve problems, think and act critically and ethical behavior.

Table 17: Most Important Qualities (Students Response Frequency Percentage)

	Level of Importance(percentage)						
	7	6	5	4	3	2	1
Identify evaluate organize and manage information and evidence	21	33	28	16	4	1	0
Research Skills	11	26	29	23	10	3	0
Analyze reasons and logic conceptualize	20	40	25	14	3	0	0
Solve problems	31	35	22	10	3	0	0
Construct arguments	15	30	31	19	4	2	1
Interpret data	25	37	23	12	4	1	0
Ethical reasoning	27	25	29	13	5	1	1
Evaluate and react to new ideas	17	33	29	19	2	1	0
Make judgments	23	40	24	12	2	1	0
Think and act critically	33	31	25	10	3	0	0
Know what question to ask	22	32	32	12	2	1	0
Recognize one own strengths and limitation	21	32	33	12	3	1	0
Appreciate ethical dimensions	14	27	35	19	5	1	1
Appreciate professional behavior	19	36	27	12	5	1	0
Ethical behavior	30	26	28	12	3	2	1
Thinking and act independently	29	37	20	11	3	1	1
Toleration of ambiguity	19	38	24	16	2	2	1
Creative thinking	23	31	25	17	4	2	0
Listening	27	27	30	13	3	1	0
Present and discuss	25	34	24	15	3	1	1
Negotiation skills	22	34	25	14	4	2	0
Understanding group dynamic	21	33	31	12	4	1	0
Collaboration	22	38	27	12	3	0	0

Note:

7 = Most Important

6 = Second Most Important

5 = Third Most Important

4 = Fourth Most Important

3 = Neutral

2 = Least Important

1 = Not Important at all

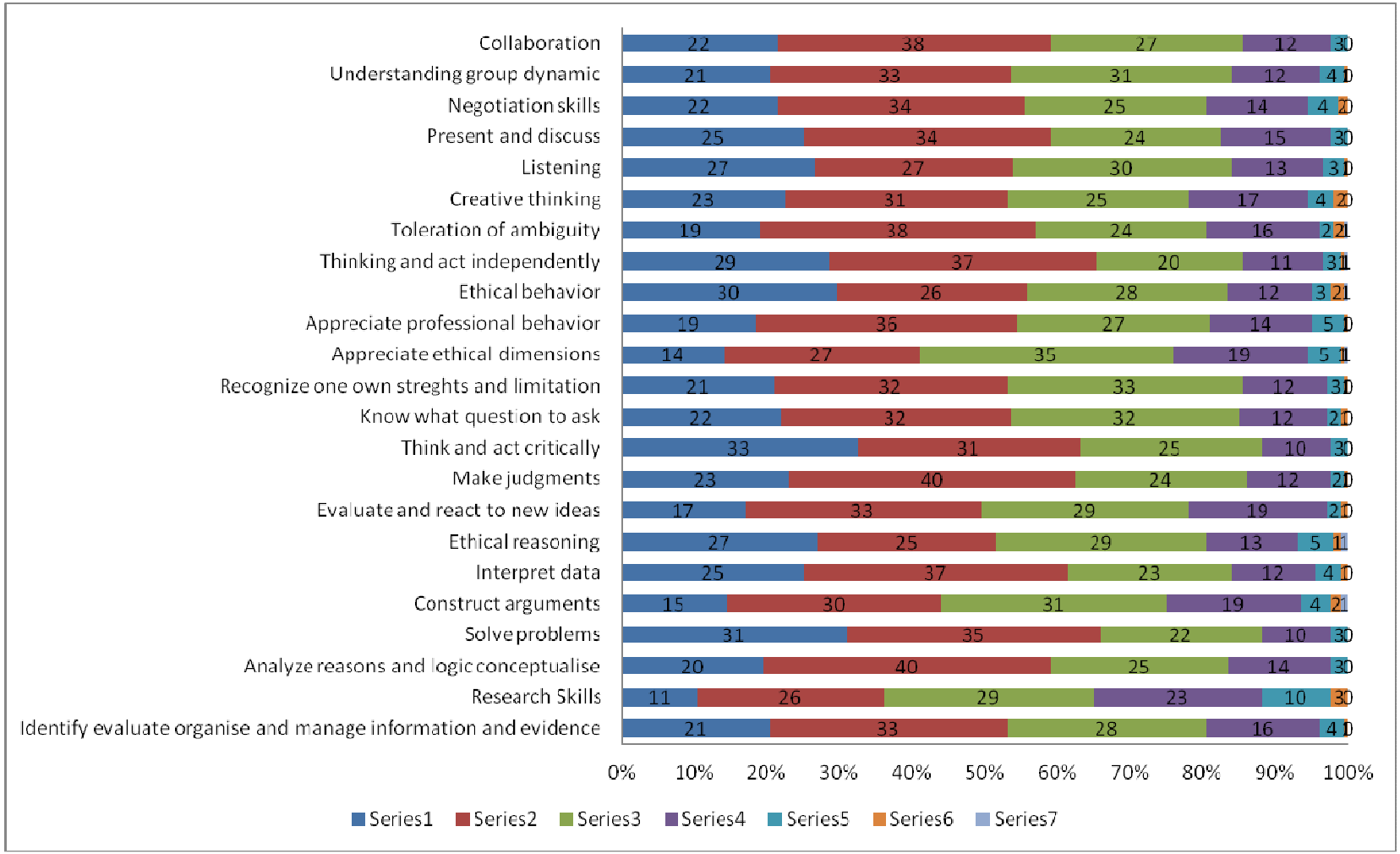


Figure 3: Percentage of Non-technical Skills which Students Perceived the Most Important in their Career

4.4 Summary of the Importance of Non-technical skills based on Accounting and Audit Industry

Accounting and audit firms were asked to rank the level of importance of the twenty three skills that they deemed to be most important for job success in accounting industry. They were asked to indicate their expectations of emphasis on a 7 point Likert scale, anchored from 1 'not important at all' to 7 'very important'. The items were based on the 'skills set' devised by Sin and Jones (2003). Data from the questionnaires were analysed further using SPSS version 17.

These skills were subsequently rank by respondent as most, second most, third most, fourth most, neutral, least important and not important at all. Response frequencies are presented as percentages. Eventually, as shown in table 18, there are three non-technical skills which accounting and audit hiring personnel rank over 30 percent as most important as they perceived in the working environment. This skills are listening, present and discuss and recognize one own strengths and limitation.

Table 18: Most Important Qualities (Accounting and Audit Firm's Response Frequency Percentages)

Non-Technical Skills	Level of Importance(response by percentage)						
	7	6	5	4	3	2	1
Identify evaluate organise and manage information and evidence	16	50	28	6	0	0	0
Research Skills	10	44	32	14	0	0	0
Analyze reasons and logic conceptualise	14	30	42	14	0	0	0
Solve problems	20	26	50	4	0	0	0
Construct arguments	8	40	36	12	4	0	0
Interpret data	18	46	28	6	2	0	0
Ethical reasoning	18	42	28	10	2	0	0
Evaluate and react to new ideas	20	34	34	6	6	0	0
Make judgments	18	34	38	8	2	0	0
Think and act critically	16	42	30	10	2	0	0
Know what question to ask	24	32	32	12	0	0	0
Recognize one own strengths and limitation	30	32	28	8	2	0	0
Appreciate ethical dimensions	20	36	28	8	8	0	0
Appreciate professional behavior	24	44	18	14	0	0	0
Ethical behavior	26	36	28	8	2	0	0
Thinking and act independently	24	28	40	8	0	0	0
Toleration of ambiguity	18	48	24	8	2	0	0
Creative thinking	24	42	18	14	2	0	0
Listening	36	38	18	6	2	0	0
Present and discuss	32	32	30	6	0	0	0
Negotiation skills	26	40	28	6	0	0	0
Understanding group dynamic	28	42	22	6	2	0	0
Collaboration	24	36	34	6	0	0	0

4.5 Expectation Gap between Students Perception and their Perceived Level of Priority given by the University on Developing the Non-Technical Skills in their Degree Program

Students were also asked to indicate how much important of this skills as in their opinion, therefore making it possible to assess any gaps with Students perception and their perceived level of priority given by the university on developing the non-technical skills in their degree program. The items were based on the 'skills set' devised by Sin and Jones (2003).

According to table 19, there are eleven non-technical skills which carry the larger expectation gap as perceived by the students. These skills are analyze reasons and logic conceptualize, solve problems, ethical reasoning, make judgments, think and act critically, know what question to ask, recognize one own strengths and limitation, thinking and act independently and toleration of ambiguity. In other words, students have rated the above mention skills as being highly important and however, the local university have failed to deliver these skills of knowledge towards their degree program. Moreover, students have perceived a lack of focus on the level of importance on developing students with all the twenty three non-technical skills the as compared.

Table 19: Students and University Academic Program Mean Emphasis Rating for Skills

Non-Technical Skills	Perceptions		Difference
	Student	University	
Identify evaluate organize and manage information and evidence	5.48	5.29	-0.19
Research Skills	4.97	4.96	-0.01
Analyze reasons and logic conceptualize	5.57	5.26	-0.32
Solve problems	5.82	5.44	-0.38
Construct arguments	5.22	5.01	-0.21
Interpret data	5.64	5.34	-0.30
Ethical reasoning	5.49	5.19	-0.31
Evaluate and react to new ideas	5.37	5.21	-0.16
Make judgments	5.66	5.35	-0.32
Think and act critically	5.79	5.48	-0.31
Know what question to ask	5.55	5.16	-0.39
Recognize one own strengths and limitation	5.55	5.24	-0.32
Appreciate ethical dimensions	5.20	5.05	-0.15
Appreciate professional behavior	5.48	5.31	-0.18
Ethical behavior	5.58	5.33	-0.26
Thinking and act independently	5.72	5.41	-0.32
Toleration of ambiguity	5.51	5.17	-0.35
Creative thinking	5.46	5.17	-0.30
Listening	5.58	5.35	-0.23
Present and discuss	5.61	5.38	-0.23
Negotiation skills	5.48	5.16	-0.33
Understanding group dynamic	5.53	5.38	-0.15
Collaboration	5.64	5.25	-0.39
Total	126.90	120.84	-6.06

(Source: Developed for research)

4.6 Paired Sample Test on the Level of Importance of Non-technical Skills between Student's Perception and University Education

H_0: There is no difference in the level of importance of non-technical skills between students' perception and university education

H_1: There is a significant difference in the level of importance of non-technical skills between Students' perception and university education

Paired sample test between student's perception and university education on the level of importance of non-technical skills produce an output which we can see in table 20, 21, and 22. Table 20 shows a summary statistics for the two experimental conditions. For the two hundred students perceived level of importance in the twenty three non-technical skills indicates a mean of 5.5542, a standard deviation of 0.79029 and standard error (sample standard deviation divided by the square root of the sample size) is 0.05588.

Paired sample test shows the Pearson correlation between students perceptions and students perceived level of priority given by the university on developing the non-technical skills in their degree program. Eventually, when data in both situations were given by the same people, no doubt there must have some correlation in their response. Based on the results shown in table 21, SPSS provides the value of Pearson's r = 0.626, indicating a huge correlation coefficient, in other words, both situation are not significantly correlated because p is larger than 0.05.

Table 22 indicates the most important output in Paired sample test which show us whether the differentiation of the two situation's mean was large or less in the chance result. Eventually, the table stated the mean difference between scores as (5.5542 - 5.2532 = 0.301). In addition, standard deviation of the differences between the means is also shown in table 22 as well as standard error for the two experimental situations. The important of t statistic is to compared against the value. The test statistics calculated as t = 0.301/0.04996 = 6.013(dividing the mean of differences by the standard error of differences. Then, the size of

't' is compared against known values base on the degrees of freedom. Since the 200 students are the same participants in this survey for both situation, the degrees of freedom here are calculated as df = 200 – 1 = 199. Next, the probability value will be calculated by using the degrees of freedom in the column labeled as Sig. The two-tailed probability for the level of importance of non-technical skills is very low (p = 0.00). In other words, when p is smaller than 0.05, as a boundary at which to assume we have evidence to reject the null hypothesis and accept there is a significant difference in the level of importance of non-technical skills between students' perception and university education.

When t value is a positive as stated in table 22, it indicates that the student perception mean was larger than the mean on students perceived level of priority given by the university on developing the non-technical skills in their degree program, thus, students perception on the level of importance for non-technical skills has led to a greater anxiety as compared. Therefore, we can conclude that the students had perceived that non-technical skills are more important than their university has develop in their degree program, $t(199) = 6.013$, $p < .05$.

The result from the output of paired sample test was predicted at the 95% confidence interval for the mean difference of 200 students. Based on the results shown in table 22, the mean difference is shown in between 0.20188 and 0.39892, and this reflects that the mean difference from the pair samples from the students is unlikely to be zero. Therefore, we can confidently indicate that the student's perceptions on the level of importance on the non-technical skills are different from the students perceived level of importance given by the university on developing the non-technical skills in their degree program.

Table 20: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Student	5.5542	200	.79029	.05588
	University	5.2538	200	.84095	.05946

(Source: Developed for research)

Table 21: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Student & University	200	.626	.000

(Source: Developed for research)

Table 22: Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Student - University	.30040	.70655	.04996	.20188	.39892	6.013	199	.000

(Source: Developed for research)

4.7 Expectation Gap between Employers Expectation and Students Perception

Students were also asked to indicate how much important of this skills as in their opinion, therefore making it possible to assess any gaps with accounting and audit industry in this skills emphasis perceived by both parties. The items were based on the 'skills set' devised by Sin and Jones (2003).

Based on the result shown in table 23, there are six non-technical skills which carry the larger expectation gap between accounting and audit hiring personnel and students. These skills are research skills, appreciate ethical dimensions, listening, present and discuss, negotiation skills and understand group dynamic. Out of all the twenty three skills, there are nineteen skills which overall students have perceived a lower level of importance as compared to accounting and audit hiring personnel. Eventually, most of the skills gap does vary quite a distance between employers expectation and students perception. Only three skills are resulted positively, there are analyze reasons and logic conceptualize, solve problems and make judgements.

Table 23: Employers and students mean emphasis rating for skills

Non-Technical Skills	Perceptions(Mean)		Difference
	Employer	Student	
Identify evaluate organize and manage information and evidence	5.76	5.48	-0.28
Research Skills	5.54	4.97	-0.58
Analyze reasons and logic conceptualize	5.50	5.57	0.07
Solve problems	5.76	5.82	0.06
Construct arguments	5.46	5.22	-0.25
Interpret data	5.80	5.64	-0.16
Ethical reasoning	5.72	5.49	-0.23
Evaluate and react to new ideas	5.60	5.37	-0.23
Make judgments	5.64	5.66	0.02
Think and act critically	5.72	5.79	0.07
Know what question to ask	5.82	5.55	-0.28
Recognize one own strengths and limitation	5.82	5.55	-0.27
Appreciate ethical dimensions	5.60	5.20	-0.40
Appreciate professional behavior	5.80	5.48	-0.32
Ethical behavior	5.88	5.58	-0.30
Thinking and act independently	5.76	5.72	-0.04
Toleration of ambiguity	5.82	5.51	-0.31
Creative thinking	5.76	5.46	-0.31
Listening	6.10	5.58	-0.52
Present and discuss	6.00	5.61	-0.40
Negotiation skills	5.94	5.48	-0.46
Understanding group dynamic	5.94	5.53	-0.41
Collaboration	5.86	5.64	-0.23
Total	132.60	126.85	-5.75

(Source: Developed for research)

4.8 Independent T-Test for the Level of Importance of Non-technical Skills Perceived by Employers (Accounting and Audit firms) and Students

H_0: There is no difference in the level of importance of non-technical skills perceived by employers and students

H1: There is a significant difference in the level of importance of non-technical skills perceived by employers and students

The independent t-test is used to test the level of importance of non-technical skills perceived by two different groups which are employers (accounting and audit firms) and students, and the purpose is to identify the differences between the two different groups of scores. Now, when different participants participate in different conditions and pairs of scores will differ not only by the experimental manipulation, but also with other sources of variance such as individual differences between participants motivation, IQ, etc.

The output from the independent t-test is shown in table 24 and 25. Table 24 shows a statistics summary for the two experimental conditions. From this table, we can see that employers had 50 participants and students had 200 participants. The employers had perceived a mean of 5.7654 on the level of importance for the twenty three non-technical skills and with a standard deviation of 0.53503. Students had perceived a mean of 5.5137 on level of importance for the twenty three non-technical skills and with a standard deviation of 0.73689. However, the standard error of that group (employers) is 0.7566 and group (students) is 0.5211.

The table which contains the main test statistics can be seen in table 25. At the very first moment that we should be aware of are two rows containing values for the test statistics in which the first row is labeled as Equal variances assumed, while the second row is labeled as Equal variances not assumed. Now, we can use Levene's test to see whether all the variances are different in different groups, and SPSS produces this test for us. Therefore, if Levene's

test is significant at p less than 0.05, we can gain confidence that the variances are significantly different. However, if Levene's test is non-significant where p is larger than 0.05, then we shall assume that the variances are not significantly different. As according to the survey data collected, Levene's test indicates that is a significantly different on expectation on the variances between the two groups (because p = 0.023, which is lesser than 0.05). Therefore, we should also accept the test statistics in the row of Equal variances not assumed and ignore the test statistics from the row of Equal variances assumed.

In other words, when p is smaller than 0.05, as as a boundary at which to assume we have evidence to reject the null hypothesis and accept there is a significant difference in the level of importance of non-technical skills perceived by employers and students.

Table 24: Independent T-test Group Statistics

	Employers_vs_students	N	Mean	Std. Deviation	Std. Error Mean
Non_technical_skills	Employer	50	5.7654	.53503	.07566
	Student	200	5.5137	.73689	.05211

(Source: Developed for research)

Table 25: 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
Non_technical_skills	Equal variances assumed	5.257	.023	2.269	248	.024	.25170	.11094	.03320	.47020
	Equal variances not assumed			2.740	100.908	.007	.25170	.09187	.06945	.43395

(Source: Developed for research)

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0 Introduction

Chapter 5 draws the final discussion and conclusion given from the findings with the survey statistic results. Eventually, all research outcomes are to be discussed under section 5.1 and section 5.2 provides a few recommendations that would help to rectify the problems with the students lacking of non-technical skills. Most of the recommendations are adapted from the inputs are drawn from the literature and some are given by the interviewees during the course of the research. Meantime, section 5.3 states all the limitations that have encountered throughout the entire process of this research. Section 5.4 will be some recommendations on the improvements for future research. Finally, a conclusion on the understanding in the importance of necessary non-technical skills has been drawn to the end of this research.

5.1 Discussion on Major Findings

The purpose of this research project is to identify the level of importance of non-technical skills for current accounting fresh graduates, with the intention to reduce unemployment rate, an influence to the education qualities for local universities as well as the attitude of accounting students in learning and priorities more towards the knowledge of non-technical skills.

Based on the research finding in chapter 4, an in-depth on the research questions and objective will be further discussed in this chapter. Eventually, the purpose of this discussion here is to explain the phenomenon of this research and to provide a clear understanding and awareness to the society on the importance of non-technical skills in the recent job market.

5.1.1 To identify the non-technical skills in which accounting graduates perceived as having the highest priority in their career.

Research question 1 was designed to identify the non-technical skills that students perceived the level of importance as having the highest priority in their. As refer to table 17, students have rated think and act critically (33%), solve problem (31%) and ethical behavior (30%) as the top three most skills in their future career. Next in line as the students rated the top four second most important skills were make judgment (40%), analyze reasons and logic conceptualize (40%) and toleration of ambiguity (38%) and collaboration (38%) . This result indicates the interest of students felt the above mention skills are the most important as having the highest priority for their career in future.

5.1.2 To examine the significance level of importance on these non-technical skills between accounting students perception and their perceived level of priority given by their university on developing these non-technical skills in their degree program.

Research question 1 and 2 was designed to evaluate the perceptions of students concerning the level of priority they perceived had been given to the development of the non-technical skills during their degree program. Thus, the mean rating for both the level of importance perceived by students was therefore evaluated by Paired sample tests and the result shows that there was a significant difference.

Interestingly, results in table 19 indicates that students has rank a higher level of importance for all twenty three non-technical skills as compared to their perceived level of priority given

by their university on developing these non-technical skills in their degree program. The most significant gap in which the top 10 skills students rated as being highly important were in terms of analyze reasons and logic conceptualize, solve problems, ethical reasoning, make judgments, think and act critically, know what question to ask, recognize own strengths and limitation, think and act independently, toleration of ambiguity and collaboration. The largest gaps (-0.39) on these skills occurred were know what question to ask (importance 5.55, delivered 5.16) and collaboration (5.64 importance, 5.25 delivered).

In other words, students from this local university felt that there was a lack of focus on developing students with these non-technical skills in which they perceived as being necessary to their career in their degree program. An assumption can be concluded here whereby the teaching of the university has varied from the highly required employability skills by today's employer in the work environment.

5.1.3 To identify the non-technical skills in which employers expect for an accounting fresh graduate in the industry

Research question 3 was designed to identify the non-technical skills that an employer expects from a fresh graduate as well the level of importance of each skills shall the students equipped. Here are the results shown in the survey obtained from employers (accounting and audit firms), ranking the level of importance on which non-technical skills they felt more important and necessary when they hired a fresh graduate from a university.

Based on the results shown in table 18, the top three most important skills in terms of the level of importance which the employers from accounting and audit firm rated were listening (36%), present and discuss (32%) and recognize one own strengths and limitation (30%). Moreover, the top three skills which they rated as second most important skills were identify, evaluate, organize and manage information and evidence (50%), toleration of ambiguity and interpret data (46%). According to the findings, employers has the most concern on interpersonal skills when hiring fresh graduates which were well equipped with excellent

listening and present and discuss skills. Unfortunately, some employers felt that fresh graduates nowadays have rarely understood and knowing how to communicate and market themselves through interviews as well as completing and presenting their work in a proper manner.

5.1.4 To examine the significance level of importance on these non-technical skills between employers expectation and students perception

Research question 4 was designed to indentify whether there is a significant difference between employer's expectation and student perceptions exist in terms of these non-technical skills that are important for a career in accounting. Based on the results shown in table 25, the independent t-test indicates that there is a significant difference on the mean rating by both employers and students and therefore, the results conclude that the expectation does exist between employer's expectation and student's perceptions.

Although both employers and students has recognize the importance of skills such as analyze reasons and logic conceptualize, solve problems, make judgments, think critically and thinking and act independently. However, there are also other skills which both groups rank differently. The notable gaps for these skills which highly rank by employers and least from students are research skills (gap = -0.58), listening (gap = - 0.52), negotiation skills (gap = -0.46), understanding group dynamic (gap = - 0.41), present and discuss (gap = - 0.40) and appreciate ethical dimensions (gap = -0.40).

Eventually, this research indicates that nowadays employers have more concern and focus on continuous learning, ability to work across disciplines, knowledge of ethics and interpersonal skills. In summary, employers are expecting fresh graduates equipped with not just technical skills but also non-technical skills, therefore resulting in a minimal of noticeable gaps between employers and fresh graduates when they come together in work.

5.2 Limitation of the Research

During the course of completing the research, researcher faced several obstacles and difficulties which could have limit the potential outcome of the research. Some of these problems were already highlighted in chapter 1 as potential limitations.

Since the research was focus on 200 students from a single university and 50 accounting and audit firms, researcher has to be more resourceful in interpreting the findings and recommendations. Factors such as biasness, negative or apathetic attitudes of respondent have to be aware as it would affect the entire research.

The information presented in this research was concerning on the analysis of the feedbacks given from the survey from different personnel. Questionnaire survey was used in this research to provide more information on the importance of non-technical skills expected from accounting and audit firms and expectation gaps. According to Carr and Kemmis's (1986), when the survey was randomly carry out from different respondent by asking the same questions, with an attempt to be representative, however, the survey result may not claimed to be represented from all students and accounting and audit firm. Therefore, mean was use in few different quantitative methods such as reliability test to provide a more reliable and complete picture in this study.

Lastly, working experience, hierarchy position for accounting and audit firm respondents and year of study for accounting students were included in the demographic data. This information is important in determining the creditability of the respondent's perceptions for the importance of non-technical skills required.

5.2.1 Time Limitation

During the course of this research, researcher attention was diverted by working environment. However, the best effort has work through the entire research project and

certain aspects of this research could have been dwelled on further in order to provide a better explanation.

5.2.2 Availability of secondary data

While materials concerning non – technical skills were sufficient, articles and discussions focusing specifically on accounting graduates were scare. Therefore, a lot of the research material had to be obtained first handed.

5.2.3 Scope of the Research

The scope of the research is limited to accounting graduates of a local university. As such, all questionnaires were specifically intended for accounting graduates of a local university. How much of the results are relevant to other universities were not tested.

While we have done our best to ensure that the respondents to our questionnaires and interviews understand the need for a complete and honest answer, we have no way to guarantee the 100% truthfulness of each individual respondent.

Some of the respondents might have some reserved bias over certain issues, and may have caused the answers to the questions to be affected by it.

5.3 Recommendations

In order to reduce accounting fresh graduate getting unemployed and increase the quality of graduates in workplace, it is important to understand the hiring requirements of employers. This research are therefore practical and very crucial for universities and accounting students as this research studies the level of importance of non-technical skills should an accounting fresh graduate equipped. Based on the research findings, here are several implications and

suggestions for educators, students and employers as to improve the education system and produce quality graduates in the workplace.

5.3.1 Industrial Training / Internship

Industrial Training provides the very important first step for graduates. It gives them exposure, especially in the practical side of accounting, something which is limited in universities.

Non – technical skills, like other skills are something that has to be developed, trained and cultivated. Very often a student is not prepared for what is expected of them by employers. Therefore, a 3 – 6 month stint with the working world is invaluable.

When placed outside with various employers, accounting students are able to pick up non – technical skills required and be better prepared for their future jobs. It will help students realize skills which they are lacking, and giving them ample time to learn and hone them.

Universities and colleges lacking internship or industrial training should start planning of ways to integrate them into the course plan, as the benefits would far outweigh the extra cost and time.

5.3.2 Revamp the Education System

A more hands on education system are needed. At present, a student, right from the days of his/her primary school till the university level has been given the wrong idea of what education is all about. Schools rush to present answers to questions students have not asked and generalizations about experiences students have not had.

More precisely, the perceived goal of education to make the individual and the society 'better' in some qualitative sense seems to missing in its current form. Along the way, we have

started to emphasize on quantity instead. In our rush to get everybody educated, we do not consider it important to ask ourselves, why do we need education?

As a result, a student expects to be spoon fed in many areas. Their sole aim has become to pass an examination. In order to do so, many at times students are forced to memorize theories and methods that they in fact do not really understand. Changing the way a few subjects are taught will not suffice. Education at its core in Malaysia has to be changed.

Here is another possible solution of solving the current problem on non-technical skills deficiencies in graduates. The responsibility in educating accounting graduates with accounting technical skills can be partly diversified to the professional accounting bodies. If this can be successfully implemented, universities can therefore refocus their lecturing and allow a more concentrated and well develop course structure that able to enhance accounting graduates with more thorough equipped non-technical skills. Eventually, when this approach was implemented, universities will have a new primary objective as to educate and develop a range of non-technical skills for their accounting students.

Meantime, universities shall also held and arrange classes for professional bodies to train students on work life accounting technical skills applicable to their accounting profession. Students shall be more effective and efficient in learning when there are first educated and subsequently trained with real life knowledge instead of theory. As a result of the restructuring of accounting education between universities and professional bodies, this may happens to create a better opportunity for accounting graduates to be better equipped with both technical and non-technical skills. Thus, fresh accounting graduates are therefore having more potential and able to meet the demands of employers in the job market.

5.3.3 Students to be more pro-active

While fingers are quick to be pointed at various parties, a student themselves should not be exempted from responsibilities. Ultimately, they should be the ones who stand up and have an innate desire to make a difference.

Students should be made to participate in all levels of their education, trained to be more pro-active. The mentality of expecting lecturers/tutors to provide all the answers to questions should be removed.

When a student is made to be independent, they will naturally start to develop various non-technical skills. This is the conclusion we made when we studied the reasons employers perceived overseas graduates to be better employees.

Communication skills, the right attitude, teamwork, interpersonal skills, and leadership quality are examples of non – technical skills that can be developed once a student steps out from their comfort zone.

5.4 Recommendation for Future Research

Based on the experience of the conducting this research study, there are several trends that could be taken into consideration for future research studies.

Firstly, students from other courses may be interested in researching if the same non – technical skills and their level of importance are the same as those required of accounting graduates.

Secondly, further studies could be done on various non-technical skills not covered in this research such as those related more to social aspects. While we understand social skills such

as those of throwing a party or public relations are of utmost importance as well, we did have sufficient time to cover all such aspects.

Lastly, we feel that the ways to improve the level of non – technical skills in students could be research further. Indeed, the recommendations provided in Chapter 5 are but the surface of an issue with enormous depth.

5.5 Conclusion

We set out at the beginning of this research project to find out if non – technical skills were important to an accounting graduate. The result was a lop-sided one. Every interviewee, every questionnaire respondent was of the same agreement, that non-technical skills are what make a difference in an accounting graduate.

With the increasingly difficult and limited job opportunities, non – technical skills are no longer just a luxury. It has become absolutely essential. Students that find themselves ill equipped would have trouble fitting in to the expectations of their employers in the future.

Therefore, it is crucial to determine the importance in developing non-technical skills and attributes for students as they are the future key stakeholders in the accounting profession. Based on the results obtained from the survey, students have rated solve problems as the most important skills to their future following by think and act critically and think and act independently. Meantime, Jones and Sin (2003) were also indicating that students had also claim the above top three skills as one of the most important skills required in their future career. In other words, students these days has focus on developing a better analytical skills, problem solving skills and critical thinking in which they believe this skills may lead them to succeed in the accounting profession.

Thus, this study has carried a very important implication for accounting educators because student's enthusiasm to learn is always driven by perceptions on these non-technical skills to

their career in accounting industry. However, this study has appeared that non-technical skills has not been much emphasize and delivered in their degree program.

As referring to employers expectations, they are looking forward for hiring graduates with well equipped non-technical skills while the top three skills in employments are listening, present and discuss and recognize one own strengths and limitation. Employers also expects skills where students know what questions to ask, appreciate ethical dimensions, creative thinking, negotiation skills, understanding group dynamic and collaboration within the nature of business.

According to Jones and Sin (2003), employers expect students equipped with life experience in an organization and work-related skills. By all means, employers has been trying to communicate in different ways to accounting educators the needs for students to adapt the working environment, for instance, implementation of work integrated learning syllabus into their degree program.

There are some agreements between employers and students on the importance on non-technical skills required for a career success in today's accounting industry. Based on the research study, these non-technical skills are analyze reasons and logic conceptualize, solve problems, make judgment, think and act critically and think and act independently. However, there is a difference shown in the research which rank by different group. Although, employers and students had rank five skills as mentioned (analyze reasons and logic conceptualize, solve problems, make judgment, think and act critically and think and act independently) as being highly valued, students perceived only three skills such as present and discuss, understanding group dynamic and listening being priorities and develop in their degree program. As according to Leveson (2000), there are quite a number of non-technical skills which both employers and students concern the most have not been the desired level of priority in developing during accounting degree program. Therefore, this indicates that accounting graduates are still not well develop and trained extensively to work and perform effectively in an accounting profession.

Cranmer (2006) claims that employers are impractical when they expect graduates to be perfectly equipped with required non-technical skills when they enter into the job market. Perhaps, employers must understand that students may have a basic knowledge, but they still need to be developed with on the job guidance, they need to be trained on higher order skills as learning is a continuous process in everybody career path. Meantime, Leveson (2000) founds that there is a lack of communication or understanding between industry and education and in return this would reflects a different expectation and perception from employers and students respectively as which skills should be priorities. However, Gati (1998) states that employers will never gain satisfaction if they continue to demand more from entry-level graduates, instead employers are told to be responsible in guiding graduates to learn along their daily related job as graduates are generating revenues towards the organization.

In today's employment opportunities, accounting graduates has to be more alert on the importance of non-technical skills in order to survive from being unemployed, as recent employers have much higher requirement which priorities on skills rather than just excellent academic achievements. However, the importance specific skills are therefore subjective and subject to continuous study and debate. For further research study, researchers shall focus on analyzing on the perceptions of graduates being employed in the accounting industries as well as educators and professional bodies that play a huge and crucial role in determining entry-level graduates to be well develop in an accounting profession.

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Appendix A

RESEARCH QUESTIONAIRE

Research Topic: A Study of the Importance of Non-Technical Skills for Accounting Fresh Graduates

Dear Participant,

I am currently pursuing MBA at University Tunku Abdul Rahman. As part of the fulfillment of my MBA Final Year Project, I am required to conduct this research. The objective of this research project is to attempt to understand the importance of non-technical skills. Through your participation, I wish to understand how the current new accounting graduates satisfy the needs of organizations.

Enclosed with this letter is a brief questionnaire that asks a variety of questions about your expectation of non-technical skills require when performing an accounting job. You are invited to complete the questionnaires and your kind participation are truly appreciated.

Your perception in this survey will contribute significantly towards solving the issues pertaining to the importance of the non-technical skills that play a key role in organizational performance improvements. The finding of this research may provide an insight to higher learning institutions to produce employable accounting graduates.

The questionnaire requires approximately 15-20 minutes to complete.

Your participation will be treated as highly confidential and anonymous. I truly appreciate it very much if you could complete the survey form and submit to me by _____.

For further enquiry, please contact me at Laurence_favoury@hotmail.com, 012-5883918

Thank you very much for your support!

Laurence Ong Choong Yuan
Student ID : 08UKM08070
University Tunku Abdul Rahman
Master in Business Administration

Instruction: Please circle the scale accordingly to describe the level of importance of these non-technical skills in your future accounting job.

Perception of the Respondents

Section A

How important are Analytical/Design Skills equip toward an accounting graduate?

The level of importance can be graded between 1 (very important) and 7 (not important).

very important						not important
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

Survey questions

No	Skills	Scale						
1	Identify, evaluate, organize and manage information and evidence	1	2	3	4	5	6	7
2	Research skills	1	2	3	4	5	6	7
3	Analyze reason and logic, conceptualize	1	2	3	4	5	6	7
4	Solve problems	1	2	3	4	5	6	7
5	Construct arguments	1	2	3	4	5	6	7
6	Interpret data	1	2	3	4	5	6	7
7	Ethical reasoning	1	2	3	4	5	6	7

Section B

How important are Appreciative Skills for a new accounting graduate?

The level of importance can be graded between 1 (very important) and 7 (not important).

very important						not important
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

1	Evaluate and react to new ideas	1	2	3	4	5	6	7
2	Make judgments	1	2	3	4	5	6	7
3	Think and act critically	1	2	3	4	5	6	7
4	Know what question to ask	1	2	3	4	5	6	7
5	Recognize one own strengths and limitation	1	2	3	4	5	6	7
6	Appreciate ethical dimensions	1	2	3	4	5	6	7
7	Appreciate professional behavior	1	2	3	4	5	6	7

Section C

How important are Personal Skills for a new accounting graduate?

The level of importance can be graded between 1 (very important) and 7 (not important).

very important						not important
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

1	Ethical behavior	1	2	3	4	5	6	7
2	Thinking and act independently	1	2	3	4	5	6	7
3	Toleration of ambiguity	1	2	3	4	5	6	7
4	Creative thinking	1	2	3	4	5	6	7

Section D

How important are Interpersonal Skills for a new accounting graduate?

The level of importance can be graded between 1 (very important) and 7 (not important).

very important						not important
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

1	Listening	1	2	3	4	5	6	7
2	Present and discuss	1	2	3	4	5	6	7
3	Negotiation skills (with people from different background)	1	2	3	4	5	6	7
4	Understanding group dynamic	1	2	3	4	5	6	7
5	Collaboration skills	1	2	3	4	5	6	7

Section E

Rank the level of priority accounting students perceived had been given to the development of the following skills in their university.

The level of priority can be graded between 1 (very important) and 7 (not important).

very important						not important
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

No	Skills	Scale						
1	Identify, evaluate, organize and manage information and evidence	1	2	3	4	5	6	7
2	Research skills	1	2	3	4	5	6	7
3	Analyze reason and logic, conceptualize	1	2	3	4	5	6	7
4	Solve problems	1	2	3	4	5	6	7
5	Construct arguments	1	2	3	4	5	6	7
6	Interpret data	1	2	3	4	5	6	7
7	Ethical reasoning	1	2	3	4	5	6	7
8	Evaluate and react to new ideas	1	2	3	4	5	6	7
9	Make judgments	1	2	3	4	5	6	7
10	Think and act critically	1	2	3	4	5	6	7
11	Know what question to ask	1	2	3	4	5	6	7
12	Recognize one own strengths and limitation	1	2	3	4	5	6	7

13	Appreciate ethical dimensions	1	2	3	4	5	6	7
14	Appreciate professional behavior	1	2	3	4	5	6	7
15	Ethical behavior	1	2	3	4	5	6	7
16	Thinking and act independently	1	2	3	4	5	6	7
17	Toleration of ambiguity	1	2	3	4	5	6	7
18	Creative thinking	1	2	3	4	5	6	7
19	Listening	1	2	3	4	5	6	7
20	Present and discuss	1	2	3	4	5	6	7
21	Negotiation skills (with people from different background)	1	2	3	4	5	6	7
22	Understanding group dynamic	1	2	3	4	5	6	7
23	Collaboration skills	1	2	3	4	5	6	7

E. Demographic Information

Instruction: Please fill in the blanks with the specific answers.

Gender : ☐ Male ☐ Female

Ethnic group : ☐ Malay ☐ Chinese ☐ Indian

☐ Others please specify _____

Age : ☐ 21- 30 ☐ 31- 40 ☐ 41-50 ☐ 51- 60 ☐ 61- 70

Working experience : ☐ 1-4 years ☐ 5-10 years ☐ More than 10 years

☐ Not applicable

Course : _____

Year of study(semsester) : _____

Declaration :

I declare that the rating scales provided are to the best of my knowledge without any influence from third party.

Signature : …….

---------- END ----------

APPENDIX B

Appendix B1: **<u>Accounting and Audit firm (Employer) Mean Rating for the Importance of Relevant Non-technical Skills for Accounting Fresh Graduates</u>**

Statistics

		Identify_evaluate_organise_and_manage_information_and_evidence	Research_Skills	Analyze_reasons_and_logic_conceptualise	Solve_problems	Contruct_arguments
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Mean		5.76	5.50	5.44	5.62	5.36

Statistics

		Interpret_data	Ethical_reasoning	Evaluate_and_react_to_new_ideas	Make_judgements	Think_and_act_critically
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Mean		5.72	5.64	5.56	5.58	5.60

Statistics

		Know_what_question_to_ask	Recognize_one_own_streghts_and_limitation	Appreciate_ethical_dimensions	Appreciate_professional_behavior	Ethical_behavior
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Mean		5.68	5.80	5.52	5.78	5.76

Statistics

		Thinking_ and_act_ independentl y	Tolerarion_ of_ambiguity	Creative_ thinking	Listening	Present_ and_discuss
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Mean		5.68	5.72	5.72	6.00	5.90

Statistics

		Negotiation_ skills	Understandin g_group_ dynamic	Collaboration _skills
N	Valid	50	50	50
	Missing	0	0	0
Mean		5.86	5.88	5.78

Appendix B2: Percentage of Non-technical Skills which Students Perceived The Most Important in their Career

Identify evaluate organize and manage information and evidence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	3	6.0	6.0	6.0
	5	14	28.0	28.0	34.0
	6	25	50.0	50.0	84.0
	7	8	16.0	16.0	100.0
	Total	50	100.0	100.0	

Research Skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	7	14.0	14.0	14.0
	5	16	32.0	32.0	46.0
	6	22	44.0	44.0	90.0
	7	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

Analyze reasons and logic conceptualize

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	7	14.0	14.0	14.0
	5	21	42.0	42.0	56.0
	6	15	30.0	30.0	86.0
	7	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

Solve problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	2	4.0	4.0	4.0
	5	25	50.0	50.0	54.0
	6	13	26.0	26.0	80.0
	7	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

Construct arguments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	2	4.0	4.0	4.0
	4	6	12.0	12.0	16.0
	5	18	36.0	36.0	52.0
	6	20	40.0	40.0	92.0
	7	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

Ethical reasoning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	5	10.0	10.0	12.0
	5	14	28.0	28.0	40.0
	6	21	42.0	42.0	82.0
	7	9	18.0	18.0	100.0
	Total	50	100.0	100.0	

Evaluate and react to new ideas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	3	6.0	6.0	6.0
	4	3	6.0	6.0	12.0
	5	17	34.0	34.0	46.0
	6	17	34.0	34.0	80.0
	7	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

Interpret data

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	3	6.0	6.0	8.0
	5	14	28.0	28.0	36.0
	6	23	46.0	46.0	82.0
	7	9	18.0	18.0	100.0
	Total	50	100.0	100.0	

Make judgments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	4	8.0	8.0	10.0
	5	19	38.0	38.0	48.0
	6	17	34.0	34.0	82.0
	7	9	18.0	18.0	100.0
	Total	50	100.0	100.0	

Think and act critically

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	5	10.0	10.0	12.0
	5	15	30.0	30.0	42.0
	6	21	42.0	42.0	84.0
	7	8	16.0	16.0	100.0
	Total	50	100.0	100.0	

Known what question to ask

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	6	12.0	12.0	12.0
	5	16	32.0	32.0	44.0
	6	16	32.0	32.0	76.0
	7	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

Recognize one own strengths and limitation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	4	8.0	8.0	10.0
	5	14	28.0	28.0	38.0
	6	16	32.0	32.0	70.0
	7	15	30.0	30.0	100.0
	Total	50	100.0	100.0	

Appreciate ethical dimensions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	4	8.0	8.0	8.0
	4	4	8.0	8.0	16.0
	5	14	28.0	28.0	44.0
	6	18	36.0	36.0	80.0
	7	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

Appreciate professional behavior

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	7	14.0	14.0	14.0
	5	9	18.0	18.0	32.0
	6	22	44.0	44.0	76.0
	7	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

Ethical Behavior

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	4	8.0	8.0	10.0
	5	14	28.0	28.0	38.0
	6	18	36.0	36.0	74.0
	7	13	26.0	26.0	100.0
	Total	50	100.0	100.0	

Thinking and act independently

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	4	8.0	8.0	8.0
	5	20	40.0	40.0	48.0
	6	14	28.0	28.0	76.0
	7	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

Toleration of ambiguity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	4	8.0	8.0	10.0
	5	12	24.0	24.0	34.0
	6	24	48.0	48.0	82.0
	7	9	18.0	18.0	100.0
	Total	50	100.0	100.0	

Creative thinking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	7	14.0	14.0	16.0
	5	9	18.0	18.0	34.0
	6	21	42.0	42.0	76.0
	7	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

Listening

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	3	6.0	6.0	8.0
	5	9	18.0	18.0	26.0
	6	19	38.0	38.0	64.0
	7	18	36.0	36.0	100.0
	Total	50	100.0	100.0	

Present and discuss

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	3	6.0	6.0	6.0
	5	15	30.0	30.0	36.0
	6	16	32.0	32.0	68.0
	7	16	32.0	32.0	100.0
	Total	50	100.0	100.0	

Negotiation skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	3	6.0	6.0	6.0
	5	14	28.0	28.0	34.0
	6	20	40.0	40.0	74.0
	7	13	26.0	26.0	100.0
	Total	50	100.0	100.0	

Understanding group dynamic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	2.0	2.0	2.0
	4	3	6.0	6.0	8.0
	5	11	22.0	22.0	30.0
	6	21	42.0	42.0	72.0
	7	14	28.0	28.0	100.0
	Total	50	100.0	100.0	

Collaboration skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	3	6.0	6.0	6.0
	5	17	34.0	34.0	40.0
	6	18	36.0	36.0	76.0
	7	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

Appendix C

Appendix C1: Students Mean Rating for the Level of Importance of Non-Technical Skills which they Perceived Most Important in their Career

Statistics

		Identify_ evaluate_ organise_ and_manage_ information_ and_evidence	Research_ Skills	Analyze_ reasons_and_ logic_ conceptualise	Solve_ problems	Contruct_ arguments
N	Valid	199	200	200	200	200
	Missing	1	0	0	0	0
Mean		5.51	4.97	5.60	5.83	5.24

Statistics

		Interpret_data	Ethical_ reasoning	Evaluate_ and_react_to_ new_ideas	Make_ judgements	Think_and_ act_critically
N	Valid	200	200	200	200	200
	Missing	0	0	0	0	0
Mean		5.65	5.49	5.41	5.69	5.81

Statistics

		Know_what_question_to_ask	Recognize_one_own_streghts_and_limitation	Appreciate_ethical_dimensions	Appreciate_professional_behavior	Ethical_behavior
N	Valid	200	200	199	200	199
	Missing	0	0	1	0	1
Mean		5.57	5.56	5.59	5.49	5.61

Statistics

		Thinking_and_act_independently	Tolerarion_of_ambiguity	Creative_thinking	Listening	Present_and_discuss
N	Valid	199	200	200	200	200
	Missing	1	0	0	0	0
Mean		5.74	5.50	5.46	5.91	5.64

Statistics

		Negotiation_skills	Understanding_group_dynamic	Collaboration_skills
N	Valid	200	200	200
	Missing	0	0	0
Mean		5.51	5.54	5.64

Appendix C2: <u>Percentage of Non-technical Skills which Students Perceived The</u>

Most Important in their Career

Identify evaluate organize and manage information and evidence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	7	3.5	3.5	3.5
	4	31	15.5	15.6	19.1
	5	55	27.5	27.6	46.7
	6	65	32.5	32.7	79.4
	7	41	20.5	20.6	100.0
	Total	199	99.5	100.0	
Missing	System	1	.5		
Total		200	100.0		

Research Skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	2.5	2.5	2.5
	3	19	9.5	9.5	12.0
	4	46	23.0	23.0	35.0
	5	58	29.0	29.0	64.0
	6	51	25.5	25.5	89.5
	7	21	10.5	10.5	100.0
	Total	200	100.0	100.0	

Analyze reasons and logic conceptualize

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	2.5	2.5	2.5
	4	28	14.0	14.0	16.5
	5	49	24.5	24.5	41.0
	6	79	39.5	39.5	80.5
	7	39	19.5	19.5	100.0
	Total	200	100.0	100.0	

Solve problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	2.5	2.5	2.5
	4	19	9.5	9.5	12.0
	5	44	22.0	22.0	34.0
	6	70	35.0	35.0	69.0
	7	62	31.0	31.0	100.0
	Total	200	100.0	100.0	

Construct arguments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1.0	1.0	1.0
	2	3	1.5	1.5	2.5
	3	8	4.0	4.0	6.5
	4	37	18.5	18.5	25.0
	5	62	31.0	31.0	56.0
	6	59	29.5	29.5	85.5
	7	29	14.5	14.5	100.0
	Total	200	100.0	100.0	

Interpret data

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	1.0	1.0	1.0
	3	7	3.5	3.5	4.5
	4	23	11.5	11.5	16.0
	5	45	22.5	22.5	38.5
	6	73	36.5	36.5	75.0
	7	50	25.0	25.0	100.0
	Total	200	100.0	100.0	

Ethical reasoning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	1.0	1.0	1.0
	2	2	1.0	1.0	2.0
	3	10	5.0	5.0	7.0
	4	25	12.5	12.5	19.5
	5	58	29.0	29.0	48.5
	6	49	24.5	24.5	73.0
	7	54	27.0	27.0	100.0
	Total	200	100.0	100.0	

Evaluate and react to new ideas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	1.0	1.0	1.0
	3	4	2.0	2.0	3.0
	4	38	19.0	19.0	22.0
	5	57	28.5	28.5	50.5
	6	65	32.5	32.5	83.0
	7	34	17.0	17.0	100.0
	Total	200	100.0	100.0	

Make judgments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.5	.5	.5
	3	4	2.0	2.0	2.5
	4	23	11.5	11.5	14.0
	5	47	23.5	23.5	37.5
	6	79	39.5	39.5	77.0
	7	46	23.0	23.0	100.0
	Total	200	100.0	100.0	

Think and act critically

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	2.5	2.5	2.5
	4	19	9.5	9.5	12.0
	5	50	25.0	25.0	37.0
	6	61	30.5	30.5	67.5
	7	65	32.5	32.5	100.0
	Total	200	100.0	100.0	

Know what question to ask

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	1.0	1.0	1.0
	3	4	2.0	2.0	3.0
	4	24	12.0	12.0	15.0
	5	63	31.5	31.5	46.5
	6	63	31.5	31.5	78.0
	7	44	22.0	22.0	100.0
	Total	200	100.0	100.0	

Recognize one own strengths and limitation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.5	.5	.5
	3	5	2.5	2.5	3.0
	4	23	11.5	11.5	14.5
	5	65	32.5	32.5	47.0
	6	64	32.0	32.0	79.0
	7	42	21.0	21.0	100.0
	Total	200	100.0	100.0	

Appreciate ethical dimensions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.5	.5	.5
	2	1	.5	.5	1.0
	3	9	4.5	4.5	5.5
	4	37	18.5	18.6	24.1
	5	69	34.5	34.7	58.8
	6	53	26.5	26.6	85.4
	7	28	14.0	14.1	99.5
	76	1	.5	.5	100.0
	Total	199	99.5	100.0	
Missing	System	1	.5		
Total		200	100.0		

Appreciate professional behavior

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.5	.5	.5
	3	9	4.5	4.5	5.0
	4	28	14.0	14.0	19.0
	5	53	26.5	26.5	45.5
	6	72	36.0	36.0	81.5
	7	37	18.5	18.5	100.0
	Total	200	100.0	100.0	

Ethical behavior

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.5	.5	.5
	2	4	2.0	2.0	2.5
	3	5	2.5	2.5	5.0
	4	23	11.5	11.6	16.6
	5	55	27.5	27.6	44.2
	6	52	26.0	26.1	70.4
	7	59	29.5	29.6	100.0
	Total	199	99.5	100.0	
Missing	System	1	.5		
Total		200	100.0		

Thinking and act independently

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.5	.5	.5
	2	1	.5	.5	1.0
	3	5	2.5	2.5	3.5
	4	22	11.0	11.1	14.6
	5	40	20.0	20.1	34.7
	6	73	36.5	36.7	71.4
	7	57	28.5	28.6	100.0
	Total	199	99.5	100.0	
Missing	System	1	.5		
Total		200	100.0		

Toleration of ambiguity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.5	.5	.5
	2	3	1.5	1.5	2.0
	3	4	2.0	2.0	4.0
	4	31	15.5	15.5	19.5
	5	47	23.5	23.5	43.0
	6	76	38.0	38.0	81.0
	7	38	19.0	19.0	100.0
	Total	200	100.0	100.0	

Creative thinking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	4	2.0	2.0	2.0
	3	7	3.5	3.5	5.5
	4	33	16.5	16.5	22.0
	5	50	25.0	25.0	47.0
	6	61	30.5	30.5	77.5
	7	45	22.5	22.5	100.0
	Total	200	100.0	100.0	

Listening

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.5	.5	.5
	3	6	3.0	3.0	3.5
	4	25	12.5	12.5	16.0
	5	60	30.0	30.0	46.0
	6	54	27.0	27.0	73.0
	7	53	26.5	26.5	99.5
	66	1	.5	.5	100.0
	Total	200	100.0	100.0	

Present and discuss

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	2.5	2.5	2.5
	4	30	15.0	15.0	17.5
	5	47	23.5	23.5	41.0
	6	68	34.0	34.0	75.0
	7	50	25.0	25.0	100.0
	Total	200	100.0	100.0	

Negotiation skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	1.5	1.5	1.5
	3	8	4.0	4.0	5.5
	4	28	14.0	14.0	19.5
	5	50	25.0	25.0	44.5
	6	68	34.0	34.0	78.5
	7	43	21.5	21.5	100.0
	Total	200	100.0	100.0	

Understanding group dynamic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.5	.5	.5
	3	7	3.5	3.5	4.0
	4	24	12.0	12.0	16.0
	5	61	30.5	30.5	46.5
	6	66	33.0	33.0	79.5
	7	41	20.5	20.5	100.0
	Total	200	100.0	100.0	

Collaboration skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	5	2.5	2.5	2.5
	4	24	12.0	12.0	14.5
	5	53	26.5	26.5	41.0
	6	75	37.5	37.5	78.5
	7	43	21.5	21.5	100.0
	Total	200	100.0	100.0	