

Generic skills in accounting education in Saudi Arabia: students' perceptions

Accounting
generic skills in
Saudi Arabia

Mohammed Ali Al Mallak, Lin Mei Tan and Fawzi Laswad
School of Accountancy, Massey University, Palmerston North, New Zealand

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Abstract

Purpose – The purpose of this exploratory study is to examine the perceptions of Saudi university accounting students of the importance of developing generic skills in their accounting education, the levels of competence they should acquire and expect to achieve during the academic study, and the constraints that may hinder the development of generic skills in accounting education.

Design/methodology/approach – The study uses the skills outlined in the IFAC's International Education Standards (IES) 3 (intellectual, personal, organizational and business management, and interpersonal and communication) and IES 4 (ethics in accounting/business). A survey questionnaire was used to collect the data.

Findings – The findings show that students perceived all five generic skill categories to be important, with ethical skills rated as the most important. However, the students expected that they would achieve a somewhat lower level of generic skill by the end of their studies in all areas, and they perceived a number of constraints that impede their skill development. The results indicate the importance of developing generic skills in accounting education and suggest that the Saudi accounting education system could do more to provide students with opportunities to develop generic skills to enable them to succeed in their future careers.

Originality/value – As little of the current literature has focused on generic skills in accounting education in a non-Western country, this research contributes to the literature on generic skills in a developing nation.

Keywords Accounting education, Constraints, Constraints gap, Final year students, Generic skills, Saudi Arabia

Paper type Research paper

1. Introduction

Generic skills are personal attributes that help to improve a person's social interactions, job performance and career prospects. Good examples of generic skills include communication skills, interpersonal skills, problem-solving skills and critical thinking skills (Carr *et al.*, 2006). With the changing economic environment and the rapid development of new technologies, generic skills are becoming increasingly crucial, as employers seek recruits who possess skills required in the workplace.

However, in the accounting profession, employers have continuously expressed concerns over the skills that accounting graduates possess. Numerous studies in countries such as the USA, Australia, the UK and New Zealand show that accounting programs are failing to meet the needs of employers and graduates in the development of generic skills (Accounting Education Change Commission (AECC), 1990; American Institute of Certified Public Accountants (AICPA), 1999; Albrecht and Sack, 2000; Bui and Porter, 2010). By drawing from the perspectives of various stakeholders (e.g., employers, educators, students, graduates and accounting practitioners), a common view is that students are not graduating with an adequate level of the necessary generic skills alongside the traditional technical accounting skills (e.g., Hassall *et al.*, 2005; Jackling and Keneley, 2009; Kavanagh and Drennan, 2008; Tan *et al.*, 2004). As a result, numerous calls have been made for accounting education providers to address the "skills gap" issue (Hancock *et al.*, 2009; Bui and Porter, 2010).

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It is interesting to note that the majority of studies on the importance of generic skills in the accounting profession have been carried out in Western and/or developed nations such as the UK, Australia, New Zealand, the USA and Canada (Bui and Porter, 2010; De Lange *et al.*, 2006; Jackling and Keneley, 2009; Kavanagh *et al.*, 2009; Milner and Hill, 2008). In contrast, relatively few studies on the generic skills of accounting graduates have been carried out in non-Western countries.

This study addresses in part the gap in the literature on the generic skills of graduates, by exploring the skills gap issue as perceived by accounting students in Saudi Arabia: a non-Western nation in the Arabian continent. Similar to Western countries, graduates' lack of generic skills has become an increasingly important issue in Saudi Arabia. Many employers, especially those in the private sector, have been unwilling to hire young Saudi graduates. They often believe, possibly through negative experiences, that Saudi university graduates do not have sufficient workplace skills (Mahdi, 2000). The implication is that Saudi Arabian universities could do more to help graduates develop the necessary generic skills.

In spite of these concerns, very few comprehensive studies on generic skills have been carried out in Saudi Arabia. This study focuses on final year students' perceptions of the important generic skills and the level of competence required of accounting graduates. In order to explore the extent of the skills gap issue, a comparison is made between the level of competence that graduates should acquire and the level of competence they have acquired in a range of generic skills. Contributing factors are also explored. The views of final year students are valuable, as they are one of the important stakeholders in education. The study will provide some insights into the "constraints gap" and on factors that may contribute to the skills gap issue in Saudi Arabia.

The framework used for this study is drawn from Bui and Porter's (2010) expectation-performance gap framework. The focus is on the "constraints gap," i.e., the difference between the level of competence that should be acquired versus the level that students expect to acquire. The skills that are examined here are drawn primarily from the International Accounting Education Standards Board (IAESB)'s 2015 revised *International Education Standard (IES) 3 (2014), Initial Professional Development – Professional Skills* and *IES 4, Professional Development – Professional Values, Ethics and Attitudes*.

The findings of this study contribute to the literature on generic skills, as they consider the perspectives of a non-Western nation. The findings will also provide some useful insights, particularly for accounting educators in Saudi Arabia, enabling them to reflect on their accounting curriculum and address the skills gap issue.

This paper is structured as follows. In section 2, we briefly discuss the literature relating to generic skills as perceived by students, with a view to identifying the concerns, expectations and constraints gaps. This leads to the development of the research questions. Section 3 provides the study objectives and framework. The research design is then described in Section 4, with a brief discussion on the list of generic skills used in the study. The results and discussion are presented in Section 5. This is followed by a conclusion, the research limitations and future research in Section 6.

2. Literature review

2.1 Overview

Over the past 30 years, professional accounting bodies, employers of accounting graduates and academics have criticized tertiary-level accounting courses for not equipping graduates with the skills required by employers in today's business world, particularly with its rapid changes and increased use of technology (e.g., Albrecht and Sack, 2000; De Lange *et al.*, 2006). With the growing concern over the adequacy of the necessary generic skills that tertiary education providers help students to develop, numerous studies have been conducted on the generic skills gap. Most of these examine what is provided by universities, what is needed in

the workplace and the problems that contribute to the gap. Some studies explore the gap by eliciting the perceptions of different stakeholders: students, graduates, educators and employers; regarding desirable skills and the extent to which these skills are emphasized within the curriculum (Carr *et al.*, 2006; De Lange *et al.*, 2006; Hassall *et al.*, 2005; Jackling and Keneley, 2009; Kavanagh and Drennan, 2008; Kavanagh *et al.*, 2009; Tan *et al.*, 2004).

Most studies generate a list of key generic skills for stakeholders in order to indicate how important they perceive those listed skills to be for accountants' career success (e.g., Jones and Sin, 2003). Some studies further group the skills into different categories, but some do not. The term "generic skills" is also used interchangeably with terms like "employability skills," "meta-skills" or "transferable skills." In spite of different terms or skill categories being used, most studies suggest that there is indeed a gap between what is taught at universities and what is required in the workplace, as the accounting curriculum tends to focus more on technical skills than on non-technical (generic) skills (Accounting Education Change Commission, 1990; Birkett, 1989).

2.2 Important generic skills and level of competencies

Accounting students who are still at university are one of the key stakeholders in the accounting education process, as they are the direct consumers of accounting degree courses. It is reasonable to assume that a student enrolls in an accounting degree course because he/she wants to secure an accounting job, and believes that the degree course will provide him/her with the skills necessary to gain employment. The views of accounting students regarding generic skills are, therefore, important.

Several studies that look at accounting students' perceptions of the relative importance of generic skills, often contrast the students' views with those of other groups. Earlier studies show that accounting students rank technical accounting competencies and oral communication skills more highly than other skills (Rebele *et al.*, 1998). Usoff and Feldmann (1998) note that there is a possibility that undergraduate accounting students might not have understood the importance of generic skills, and thus, consider that the degree program should instead focus on technical accounting skills. Recent studies supported the contention that students believed that technical skills are not sufficient for job success in accounting (Birkett, 1993; Usoff and Feldmann, 1998) and that students gained a better understanding of important generic skills as they progressed through their courses (Reed and Kratchman, 1989).

The study by Weil *et al.* (2001), for example, indicates that students ranked real-world decision-making skills and the ability to find several solutions to business problems (i.e. problem-solving skills) as the most important generic skills. Another study carried out by Gabric and McFadden (2001) shows that students rank verbal communication, problem-solving and listening skills as the three most important skills. Morgan (1997) and Jones and Sin (2003) found that skills nominated by students as being the most important to their career, related to personal and communication skills (including self-motivation, professional attitude, oral and written communication, teamwork and values), analytic/design skills, appreciative skills (including decision-making and critical thinking) and leadership and interpersonal skills. Consistent with the findings of most prior studies, Kavanagh and Drennan's (2008) study indicates that accounting students agree that problem-solving skills and teamwork skills are important for securing a job in the accounting marketplace. A recent study by Abayadeera and Watty (2016) in Sri Lanka suggests that the generic skills that accounting students believe to be important are intellectual skills and personal skills, followed by management skills, communication skills and analytical skills. Overall, accounting students commonly believe that it is important to acquire a high level of generic skills during tertiary studies (see Hassall *et al.*, 2003; Kavanagh and Drennan, 2008).

2.3 Constraints gap

The constraints gap is a concept that is defined and developed most fully by Bui and Porter (2010). Based on their expectation-performance gap framework (see Figure 1), a constraint gap arises where there is a difference between the competencies reasonably expected by educators and the competencies desired by educators. The constraints gap, therefore, acknowledges that there may be barriers preventing educators from developing a sufficient level of generic skill in accounting students, either because of the nature of university education or because of factors related to the students themselves.

The constraints gap is evident in prior studies, which indicate students' frustration and disappointment with the level of skills that they were able to achieve at university (e.g., Abayadeera and Watty, 2011; Jackling and De Lange, 2009; Kavanagh and Drennan, 2008). However, the results are mixed when different skill categories are analyzed further. For example, some research revealed that communication skills have the widest gap (e.g., Borzi and Mills, 2001; Keneley and Jackling, 2011), whereas other studies found smaller gaps or no gap (e.g., Bui and Porter, 2010; Farrell and Farrell, 2008). A "negative" gap is shown in Sawyer *et al.*, (2000) study, suggesting that students thought too much emphasis was placed on teamwork, research and oral communication skills. Some studies found a constraint gap for intellectual skills (e.g., AlMotaury, 2016; Kavanagh and Drennan, 2008), but others indicated no gap (e.g., Paisey and Paisey, 2010; Sawyer *et al.*, 2000). Interestingly, there are also studies, which show a discrepancy between the level to which generic skills have been acquired and the importance given to those same skills by accounting students (De Lange *et al.*, 2006; Hassall *et al.*, 2003; Jackling and Keneley, 2009).

2.4 Constraints factors

Constraints are defined as those factors that contribute to or create the constraints gaps. A number of constraints that hinder students' acquisition of generic skills have been identified in the literature (e.g., Bui and Porter, 2010; Hassall *et al.*, 2005; Milner and Hill, 2008; Parvaiz, 2014). For instance, Bui and Porter (2010) identified constraints as student-related or institutional-related. Student-related constraints relate to students' innate ability or aptitude, as well as their attitudes, motivation and level of interest in an area like generic skills. Some studies suggest that students' attitudes are strongly related to their performance and their level of competence upon graduation (Bui and Porter, 2010; Marriott and Marriott, 2003). Other studies have shown student-related constraints to also include a lack of maturity (Ha *et al.*, 2012), failure to make the most of opportunities provided or laziness (Bui and Porter,

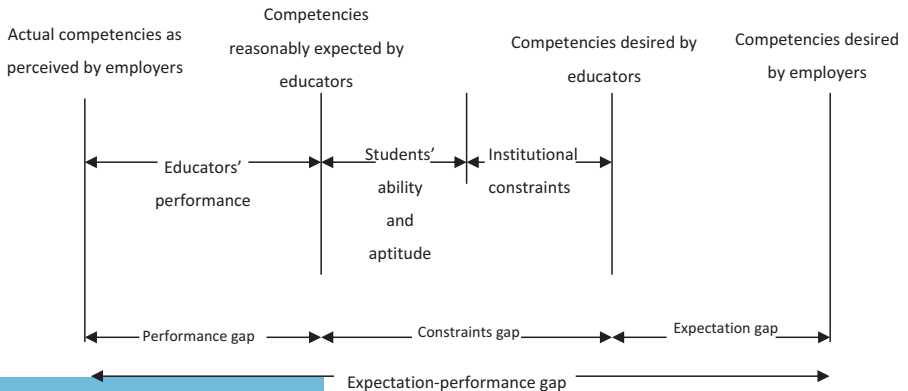


Figure 1. Expectation-performance gap (Bui and Porter, 2010)

2010), not considering generic skills to be important (Bui and Porter, 2010), and deficiencies in pre-university education (Ha *et al.*, 2012).

Institutional factors are quite broad, and they include university culture that focuses on and rewards research rather than good teaching, class sizes, time and the curriculum. Another constraint can be linked to teachers, who may lack the motivation or the time to think of ways to help with skills development, owing to the university's reward system and large class sizes. They may also lack the expertise or real-world experience to help students develop certain generic skills. All the constraints identified in the literature are, in a way, interrelated and affect one another.

2.5 The Saudi Arabia scene

The skills gap issue is not unique to Western countries; it is a concern in non-Western countries as well. In Saudi Arabia, generic skills are an important issue that needs serious attention, given that the country has been undertaking a program of widespread educational reform in response to government initiatives. Saudi universities, therefore, play an important role in helping to provide the country with the human capital required to reduce dependence on immigrant workers (Al-Yahya, 2008). Employers, particularly in the private sector, have expressed dissatisfaction with the level of competence in generic skills acquired by young Saudi accounting graduates, and they generally prefer to hire foreign workers (Mahdi, 2000). The skills gap is considered to be one of the major barriers hindering the national goal of "Saudization" (Ghaban *et al.*, 2002).

Despite the concerns over the contribution of the skills gap toward the human capital problem in Saudi Arabia, very few studies have been carried out to examine the gap issue in accounting (AlMotairy, 2016). Since the late 1990s, Usoff and Feldmann (1998) have pointed out that accounting faculties in Saudi should educate students about the need for generic skills, as well as improving students' levels of competencies in these skills. Similar insights about the generic skills gap have also been gained from other studies carried out within Saudi Arabia (e.g., Al-Mallak, 2012; AlMotairy, 2016; Zureigat, 2015), although many did not explore constraints factors.

3. Study objectives and framework

3.1 Objectives

The Bui and Porter's (2010) framework examines the constraints gap by comparing the competencies reasonably expected by educators and those desired by educators. They also gathered the perspectives of accounting students regarding the barriers and constraints to the development of generic skills.

This study draws on their framework to explore the constraints gap and the factors that may hinder the development of generic skills in accounting education in a Saudi Arabian context. Students' perspectives are important, as they are the most affected directly by the process, and they have legitimate expectations of the outcomes of education (Jackling and De Lange, 2009). Students often feel frustrated if universities are not helping them to develop an adequate level of the generic skills they believe to be important for the workplace (Kavanagh and Drennan, 2008). However, students' personal characteristics, such as motivation and diligence, many also play a part in their development of various skills (Marriott and Marriott, 2003; Bui and Porter, 2010), but very few studies have explored the constraints factors in the accounting discipline.

Therefore, the research questions raised in this study are as follows:

- (1) Which generic skills do students perceive as important or needed for successful employment?

- (2) What level of competence in generic skills do students perceive that they should acquire on completion of academic study?
- (3) What level of competence in generic skills do students perceive they should acquire on completion of academic study?
- (4) Are there any significant gaps (constraints gaps) between the levels of competence that they should acquire and the level of competence students perceive they should acquire by the end of their degree?
- (5) What factors (constraining factors) might possibly hinder the development of students' generic skills in accounting education at university?

3.2 Skills classification framework

A number of suggested generic skill frameworks have been provided by governments, business communities, professional bodies and academics (e.g., [American Institute of Certified Public Accountants \(AICPA\), 1999](#); [Jones and Sin, 2003](#); [IES 3, 2014](#)). For example, the AICPA core competency framework ([American Institute of Certified Public Accountants \(AICPA\), 1999](#)) sets out three broad categories of skills: functional, broad business and personal. Jones and Sin's classification (2003) is based on [Birkett's \(1993\)](#) competency framework, which identified skills as cognitive (routine skills, analytic skills, appreciative skills) and behavioral (personal skills and interpersonal skills).

The IES standards, IES 3 (Initial Professional Skills) and IES 4 (Initial Professional Values, Ethics and Attitudes) which were adopted on July 1, 2015, identify four skills a professional accountant must have (i.e.: intellectual; interpersonal and communication; personal; organization and business management), along with ethics in accounting/ business, respectively. This framework is adopted for the present study as the Saudi Arabian accounting body is a member of IFAC. Although Saudi Arabia is an IFAC member, the Saudi Arabian accounting education providers have not been complying fully with the standards outlined in IES 3–8 ([Ahern et al., 2007](#)). However, the Saudi Organization for Certified Public Accountants (SOCPA) has recently indicated its commitment to adopt the IES standards by 2017 ([Saudi Organization for Certified Public Accountants \(SOCPA\), 2012](#)). Therefore, it is considered appropriate to draw on the IES 3-4 framework for categorizing generic skills for this study.

The five selected skill categories used in this study and how they fit within the IES 3-4 framework are illustrated in [Figure 2](#).

4. Research design

4.1 Sample

The population chosen for this study was final year accounting students in Saudi Arabia, defined as those who will graduate soon (i.e., within the next 12 months, assuming that they meet all the course requirements), from tertiary-level professional accounting courses provided by an educational institute. At present, 34 universities in Saudi Arabia offer accounting degrees. Ten of these are private universities, and the remaining 24 are government-sponsored. All universities offer a BA (Accounting) degree program, and two universities offer both undergraduate and postgraduate (MA) level degrees ([AlMotairy and Stainbank, 2014](#)).

Each university is free to develop its own approach to teaching accounting, with the college council at each university deciding on the curriculum to be offered in the accounting degree course. Nevertheless, most accounting degree courses in Saudi universities are very similar and cover more or less the same fundamental topics ([AlMotairy and Stainbank, 2014](#)).

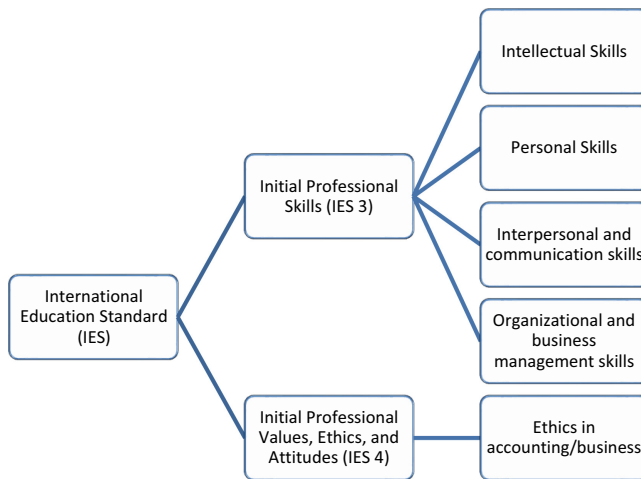


Figure 2.
Study framework

The primary method of instruction is via traditional lectures using whiteboard demonstrations and textbooks. During the lectures, the student/lecturer ratio can be as high as 80 to 1, especially in compulsory courses. The course content chiefly focuses on accounting theory, and very little time is given to developing practical techniques. According to [Al-Rehaily \(1992\)](#), very little emphasis is given to generic skills like critical analysis, reflective thinking and decision-making skills; even basic research skills such as library or Internet research are not required in most undergraduate programs.

For the purpose of this study, 14 universities were initially contacted for permission to collect data from their accounting final year students. These universities were chosen because they are large institutions in Saudi Arabia with a high number of students. However, only four of the 14 universities gave permission to survey their students. The survey was carried out between March and June 2016, and a total of 350 questionnaires were distributed. Students were invited to participate in the survey and were asked to read the instructions and consider the response options carefully. They were also informed that it would take about 15 min to complete the questionnaire, there would be no right or wrong answers, and they could provide some comments or feedback using the open-ended questions. They were further assured of the confidentiality of the responses and that no individuals would be identified in any material published from the survey.

A total of 256 final year students responded to the questionnaire on-line [1]. [Table 1](#) shows the demographic details of the final year students, all of whom were enrolled in the four main Saudi universities: 64% from King Faisal University (KFU), 13% from Imam Muhammad ibn Saud Islamic University (IMAMU), 9% from King Saud University (KSU), 6% from King Fahd University of Petroleum and Minerals (KFUPM) and about 7% did not indicate which university they were from. The majority of the students were female (60%), aged under 25 years (76%) and had no prior work experience (59%).

4.2 Questionnaire

The first part of the questionnaire focuses on the five skills categories: intellectual, personal, interpersonal and communication, organizational and business management (OBM) and accounting or business ethics. Each category, in turn, identifies a set of skills that falls under the umbrella of that category (see questionnaire in [Appendix 1](#)). Students were asked to

Table 1.
Demographics of final
year accounting
students

Demographic	Category	Code	No	Response rate
Universities	King Saud University	KSU	23	9.0%
	King Faisal University	KFU	165	64.5%
	Imam Muhammad ibn Saud Islamic University	IMAMU	34	13.2%
	King Fahd University of Petroleum and Minerals	KFUPM	15	5.9%
	Not stated	Missing	19	7.4%
		Total	256	100%
Gender	Male	1	91	35.5%
	Female	2	154	60.2%
		Missing	11	4.3%
		Total	256	100%
Age	21–29	Under 25	195	76.2%
		25 or over	43	16.8%
		Missing	18	7.0%
		Total	256	100%
Work experience	No Yes (part or full time)	1	152	59.4%
		2	83	32.4%
		Missing	21	8.2%
		Total	256	100%

indicate how important each skill is for accounting graduates (1 = not important; 5 = very important). The second question asked students to indicate their perceptions of the level of competence that they should acquire on completion of academic study and their perceptions of the level of competence they expect to achieve. A five-point Likert-type scale was used, where 1 indicated “not competent” and 5 indicated “very competent.” The third question provided a list of possible factors that might have constrained the development of generic skills in accounting education at university. These factors have been drawn from prior literature, principally from the work of [Bui and Porter \(2010\)](#) and [Hassall *et al.* \(2005\)](#). Students were asked to indicate their agreement using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The last section elicited demographic information from the students. As this is an exploratory study, open-ended questions were also provided for students who might wish to provide additional information or comments. Statistical Package for Social Sciences (SPSS) software was used to analyze the results. The data on importance and competence were analyzed for normality and were found to be normally distributed for the majority of items under consideration [2].

5. Results and discussions

5.1 Importance of generic skills

The importance of generic skills, as perceived by the students, is shown in [Table 2](#). The results show that the mean scores for all skills were above 3, suggesting that students recognized the importance of the various generic skills.

[Table 3](#) presents the Cronbach alpha coefficients (α) for all five skill categories. A Cronbach's α reliability coefficient of 0.6 is usually considered to be acceptable, and a score of over 0.80 is considered to indicate good reliability ([Coakes *et al.*, 2009](#)). As the Cronbach's α coefficients for all the variables in this dataset were more than 0.80, the results suggest that all the different skill items in each of the categories provided a good measure or indication of the category.

The most important category of generic skills was that of ethical skills. This finding is in sharp contrast to prior studies carried out in Western countries, which indicate that ethical

	<i>N</i>	<i>M</i>	Median	SD
<i>Panel A: intellectual</i>				
(1) Apply professional judgement to reach well-reasoned conclusions	250	4.000	4.000	1.025
(2) Apply logical and analytical thinking	254	3.976	4.000	1.074
(3) Use innovative thinking to solve problems	253	3.854	4.000	1.090
(4) Identify when it is appropriate to consult with specialists to solve problems and reach conclusions	253	3.794	4.000	1.064
(5) Identify and evaluate alternatives	255	3.776	4.000	1.032
(6) Able to locate, obtain, analyse and integrate information from various sources and perspectives	254	3.772	4.000	1.068
(7) Identify and solve multi-faceted problems	252	3.758	4.000	1.068
(8) Identify and solve unstructured problems	253	3.688	4.000	1.084
(9) Reason logically and critically analyse the problem	255	3.663	4.000	1.063
<i>Panel B: personal</i>				
(1) Open to new ideas and opportunities	254	4.024	4.000	1.067
(2) Manage time to acquire professional commitments	252	4.024	4.000	1.063
(3) Have enthusiasm for ongoing learning	254	3.913	4.000	1.190
(4) Be flexible in new or different situations/opportunities	255	3.898	4.000	1.089
(5) Manage resources to acquire professional commitments	255	3.890	4.000	1.106
(6) Take responsibility for own work with minimum direction	253	3.814	4.000	1.055
(7) Anticipate challenges and plan potential solutions	254	3.791	4.000	1.067
(8) Manage own learning using available resources	255	3.788	4.000	1.024
(9) Set high work standards	251	3.725	4.000	1.058
(10) Identify opportunities not obvious to others	253	3.636	4.000	1.135
(11) Evaluate and monitor own performance from feedback and reflection	254	3.602	4.000	1.130
(12) Apply professional scepticism through questioning	254	3.307	3.000	1.085
(13) Critically assess all information	255	3.267	3.000	1.167
<i>Panel C: interpersonal and communication</i>				
(1) Work effectively with others	255	4.071	4.000	1.141
(2) Work in harmony with others contributing towards common goals	254	4.047	4.000	1.138
(3) Engage effectively in discussion in a professional manner	255	3.910	4.000	1.033
(4) Interact effectively with others in a professional manner	245	3.894	4.000	1.085
(5) Negotiate with people from different backgrounds	254	3.894	4.000	1.067
(6) Communicate effectively in writing and orally appropriate to the situation	255	3.886	4.000	1.030
(7) Apply active listening and understanding	253	3.877	4.000	1.068
(8) Present ideas clearly and influence others to provide support and commitment	245	3.873	4.000	1.111
(9) Aware of cultural and language differences in all communication	252	3.742	4.000	1.185
(10) Fluency in English language	253	3.739	4.000	1.301
(11) Apply effective interviewing techniques	254	3.681	4.000	1.116
(12) Communicate effectively information, ideas, problems and solutions to specialist and non-specialist audiences	253	3.648	4.000	1.065
(13) Evaluate and present outcomes using oral presentations	254	3.484	4.000	1.106
(14) Negotiate and manage conflicts	247	3.364	3.000	1.178
<i>Panel D: organizational and business management</i>				
(1) Apply tools and technology to increase efficiency and effectiveness, e.g. use of Internet, spreadsheet, word processing	245	4.057	4.000	1.162
(2) Organise work to meet deadlines	245	4.033	4.000	1.090
(3) Apply information technology as a management tool, e.g. computerised accounting systems	244	4.020	4.000	1.156
(4) Able to review own work to determine whether it complies with quality standards	245	3.890	4.000	1.075

(continued)

Table 2.
Descriptive statistics of
the importance of
generic skills: number
of responses (*N*), mean
(*M*), median and
standard
deviation (SD)

		<i>N</i>	<i>M</i>	Median	SD
(5)	Able to motivate and to develop others	245	3.771	4.000	1.100
(6)	Able to review the work of others to determine whether it complies with quality standards	244	3.713	4.000	1.062
(7)	Apply leadership skills to influence others to work towards common goals	245	3.706	4.000	1.143
(8)	Able to organise and delegate tasks	244	3.680	4.000	1.150
(9)	Able to select and assign priorities within restricted resources	245	3.665	4.000	1.125
<i>Panel E: ethics in accounting/business</i>					
(1)	Apply the fundamental ethical principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior to ethical dilemmas and determine an appropriate approach	245	4.171	5.000	1.140
(2)	Understand the nature of ethics in accounting/business	244	4.139	5.000	1.099
(3)	Identify ethical issues and determine when ethical principles apply	244	4.098	4.000	1.099
(4)	Analyse alternative courses of action and determine the ethical consequences of these	245	3.980	4.000	1.065

Table 2.

Table 3.
Number of items, number of response (*N*), Cronbach α , means and standard deviation for importance for the five skills groups

Generic skills	No. of items (skills)	<i>N</i>	Cronbach's α	Mean	SD
Intellectual	9	255	0.87	3.805	0.747
Personal	13	244	0.88	3.761	0.707
Interpersonal/communication	14	239	0.89	3.799	0.725
OBM	9	242	0.90	3.848	0.830
Ethics	4	244	0.91	4.100	0.976

Note(s): 1 = "not important" to 5 = "very important"

skills were not the most important skills. The emphasis placed on ethics is very much particular to Saudi religious culture (*Shari'ah* law), which shapes and controls its society, including accounting practices. As a result, ethics and ethical behavior are considered very important in all aspects of life, including the workplace.

OBM skills were considered to be the second most important skills, indicating that Saudi students regarded the ability to apply technological skills and organizational and management skills as crucial in the workplace. This finding is also in contrast to prior studies, which tended to rate interpersonal and communication, personal, and intellectual skills higher than OBM skills. Students perhaps felt that employers would prefer those who have the ability to apply tools (such as the use of the Internet, spreadsheet and word processing), information technology, and organizing their work to meet datelines, as these are very important in increasing workplace efficiency and effectiveness. As a consequence, other skills, although considered important, were rated lower – for example, interpersonal and communication skills, and personal skills and intellectual skills.

5.2 Constraints gap and factors

5.2.1 Constraints gap.

Just as for the importance of generic skills, the Cronbach α coefficients for the 49 items included in the five skills categories were also checked. As all skills categories had alpha scores over 0.80, indicating good reliability, these five categories were used for the analyses of the level of competence as perceived by the students. The paired sample *t*-test was

carried out on 211 students who completed both the “should acquire” and “expect to acquire” questions.

These results, as shown in Table 4, indicate that the students believed they should acquire a high level of competence in all skill categories [3]. However, they expected that they should have acquired a lower level of competence in all skill categories when they graduated. These findings are consistent with previous studies, which show that accounting students value generic skills, and feel it is important to acquire a high level of competency in these skills as part of their education (see Hassall *et al.*, 2003; Kavanagh and Drennan, 2008); nevertheless, students consistently fail to reach a desirable level of competency in this regard (see Abayadeera and Watty, 2011; Kavanagh and Drennan, 2008).

To examine whether there were significant differences between the students’ views of the level of competence they should acquire and the level of competence they expected to acquire, paired sample *t*-tests were carried out. As shown in Table 4, all generic skill categories showed significant differences, suggesting the existence of a constraints gap in all generic skill categories.

The gap in interpersonal and communication skills, as revealed here, is interesting because, as found in prior studies (e.g., Borzi and Mills, 2001; Kavanagh and Drennan, 2008; Keneley and Jackling, 2011), it is not the widest gap. The largest constraints gap appeared in intellectual skills, which is generally consistent with the findings of Kavanagh and Drennan (2008), but inconsistent with other studies (e.g. Mohamad *et al.*, 2017; Sawyer *et al.*, 2000). AlMotairy (2016) also noted that Saudi students failed to develop certain intellectual skills, especially critical thinking skills. Alwehaibi (2012) explained that Saudi students often lacked critical thinking skills because these skills are not introduced during school education. Therefore, students entering university do not know how to apply such skills, and universities have not helped much with their development.

The constraints gap in OBM skills found in this study is consistent with prior studies (e.g., Kavanagh and Drennan, 2008) and the Saudi literature (Al-Dosary *et al.*, 2005). Young Saudis tend to be up to date with modern telecommunications and devices, and thus, are probably aware of the importance of using these skills in the workplace (Al-Dosary *et al.*, 2005). It appears the students in this study consider OBM skills to be very important and they want to acquire more skills in applying tools and technology in the workplace.

Of all the five skill categories, the findings on ethical skills showed a notable difference from most prior studies, which showed no gap (e.g., Kavanagh and Drennan, 2008; Mohamad *et al.*, 2017). According to Saleem (1993), ethics falls under the umbrella of *Shari’ah* or Muslim law. This code of ethics or morality encompasses all of life, professional and private, and thus, it affects accounting practices. The Saudi Arabian culture is, therefore, much more overtly religious on a national level, in contrast with the more secular Western society, where religion and morality are matters of personal and private choice rather than ideologies imposed at an institutional level. Furthermore, strong religious beliefs can provide a high degree of

Generic skills	Should acquire	Expect to acquire	Difference between	
	Mean	Mean	Difference	<i>p</i> -value
Intellectual	3.775	3.380	0.395	0.000***
Personal	3.792	3.444	0.348	0.000***
Interpersonal/communication	3.768	3.446	0.322	0.000***
OBM	3.771	3.538	0.233	0.001***
Ethics	3.939	3.774	0.165	0.017*

Note(s): **p* < 0.05 ***p* < 0.01 ****p* < 0.001

Table 4.
Paired sample *t*-tests
for should acquire and
expect to acquire for
students

motivation to develop good ethical skills. This culture helps to explain why the students felt that ethics are a very important skill, and why they should acquire a high level of ethical skills upon completing their university studies.

5.2.2 *Constraints factors.* Table 5 shows the findings for students' perceptions of the factors that might have constrained their development of generic skills.

Two of the ten factors were not perceived by students as hindering their development. They were: Generic skills are not considered important by students, and Generic skills are not considered important by academics.

A number of students responded to the open-ended question, which asked them to list other constraining factors. A summary of the feedback is shown in Table 6, and they are grouped into three broader categories: student related, institutional related and teacher related. Some of the identified constraints overlapped with those shown in Table 5. A discussion of the constraints factors is provided next.

(1) Institutional constraints

- Curriculum

The majority of students agreed that the accounting curriculum tends to focus more on content and less on generic skills. In particular, it appeared that there was too much focus on theoretical knowledge, rather than on the application of this knowledge to solve problems practically. This constraint has also been highlighted in other studies (e.g., Hussain *et al.*, 2015; Kammer *et al.*, 2015). The emphasis on theory in accounting courses in Saudi Arabia is typically greater than in other non-Western countries because accountants in Saudi Arabia have to be familiar with the techniques and tools of Islamic finance and accounting (e.g., auditing and the requirements of reporting) as well as mainstream finance and accounting (Hussain *et al.*, 2015; Kammer *et al.*, 2015). These extra requirements mean that students have to work hard to learn the principles of accounting in both systems. As a result, lecturers or educators are often constrained by time to help students in acquiring other skills. This constraint, in fact, overlaps with the insufficient time constraint identified by the students.

Additional insights from students show that English language skill was a concern. This is because most of the accounting degree courses in Saudi Arabia are taught in Arabic. However, students are very well aware of the importance of communicating in English in the modern accounting world of Saudi Arabia with its more global and international focus, and of

Constraints factors	N	Mean	Median	SD
(1) Generic skills are not considered important by students (SR)	250	2.176	2.000	1.305
(2) Generic skills are not considered important by academics (TR)	251	2.339	2.000	1.417
(3) Large class sizes impede the development of generic skills (IR)	248	3.137	3.000	1.158
(4) Our accounting curriculum tends to focus more on content and less on generic skills (IR)	251	3.618	4.000	1.205
(5) There is insufficient time for the development of generic skills (IR)	251	3.327	3.000	1.263
(6) The development of students' generic skills is not a priority at my University (IR)	251	2.960	3.000	1.416
(7) Educators lack expertise in helping students develop generic skills (TR)	251	2.984	3.000	1.186
(8) Graduates' employability is not a priority at my University (IR)	251	3.092	3.000	1.495
(9) Students lack the ability to improve their generic skills (SR)	251	3.064	3.000	1.147
(10) Students' own motivation to develop these generic skills (SR)	251	3.371	3.000	1.174

Table 5. Constraints factors as perceived by final year students

Note(s): 1 = "Strongly disagree" to 5 = "Strongly agree"
IR = Institutional related; TR = Teacher related; SR = Student related

<i>Student's code</i>	<i>Student related constraining factors</i>
S2	Lack of awareness of the importance of acquiring skills
S162	The lack of motivation for excellence and activities to develop skills
S15, S34	Unable to develop skills as we have a studying pressure
S153	The lack of personal ability to develop skills
S153	The lack of Family Guidance for how to develop skills
S13	Being unsocial, student hinders his/her development of generic skills
S188	Lack of self-reliance since childhood that reduce students' abilities to develop skills
S24	Lack of communication skills with educators
<i>Student's code</i>	<i>Institutional related constraining factors</i>
S1, S3, S8, S16, S21, S34, S96, S131, S142, S152	No renewing and developing the accounting curriculum, focus on the theoretical side and neglect the practical that hinders developing students' skills as well as focusing only on the content and not skills
S153, S155, S163, S173, S209, S236	Congested school timetable so no time for developing skills
S5	Time constraints to develop skills as there is limited time to complete the course
S14	Bad education environment for developing skills
S236	No social activities provided by university that allow to develop skills such as clubs
S190	Lack of good guidance for how to develop skills from university
S10, S94	Lack of sufficient stimulation from university to develop skills
S173	There is no skills training for female students
S252	Limited use of computers that allow the development of technical skills at undergraduate level
S158	Lack of lessons, seminars and useful tutorials for developing students' skills
S101, S173	University education do not provide any vision and clarification for graduates' employability skills for future work
S204	Choosing educators based on published research rather than ability to deliver information and help students develop skills
S221	Not enough teaching staff to teach accounting subjects and help students develop skills
S17	
<i>Student's code</i>	<i>Teacher-related constraining factors</i>
S5, S133	Lack of cooperation by some educators that no help is given to develop skills
S228, S200	Educators focus on only content knowledge rather than discussions and improvement of skills
S164, S8	Educators are from the older generation, so they are not aware of or not familiar enough with the development of labor market needs as well as not aware of the new generation of students' way of thinking
S7, S51	Some educators are incompetent to help with development of skills
S96	Some of the educators do not care for their students' success in achieving important skills
S96	Some educators have less consideration about important skills required in accounting education

Table 6.
Constraints identified
in the open-ended
question

the presence of many migrant/foreign workers in the workplace where English is the *lingua franca*. Even though English language courses were provided at universities, the students have little opportunity to apply these skills (along with others) in practice, and many courses do not include a technical accounting vocabulary in English. Therefore, it is harder for students to acquire the level of competency in English that they would like to. OBM skills were also signaled by the students as an area of concern, indicating that the accounting curriculum is not providing enough opportunity for students to develop these skills. It is possible that the curriculum has not been flexible enough, or has not changed to keep pace with recent developments in information and communication technology, which makes up an important part of OBM skills. The focus on content also means that less focus is placed on helping students develop organizational and leadership skills. As indicated by [Al-Dosary et al. \(2005\)](#), the curriculum in the Saudi university system appears to be inflexible and slow to meet the demands of the marketplace.

- Class time

Students pointed out the insufficient time for the development of generic skills as a constraint. Lack of time can also be due to the overly theoretical and technical course content. If the course tends to focus mostly on learning technical accounting skills, principles and processes, with less emphasis on the practical activities that would allow students to develop generic skills, the students' time will be taken up with memorizing, studying and learning the theoretical content, especially when it is the focus of the exams. Indeed, several students mentioned the pressure of studying for exams as being a constraint that prevented them from developing generic skills. Lack of time has also been identified as a barrier to students developing generic skills in other studies in the Western context (e.g., [Kavanagh and Drennan, 2008](#); [Milner and Hill, 2008](#)).

- Class size

Students felt that large class sizes impeded the development of generic skills. This constraint has also been identified in numerous studies (e.g., [Bui and Porter, 2010](#); [Hassall et al., 2005](#)). Most generic skills are best practiced and learned through activities such as group discussions, presentations and the like, which are difficult to carry out when class sizes are large ([Healy and McCutcheon, 2010](#)). The class size problem is not an easy one to solve, as accounting degree programs tend to be popular and to attract a large number of students when compared with many other disciplines. [Al-Rehaily \(1992\)](#) reported that the student/lecturer ratio could be as high as 80 to 1 in some accounting degree courses in Saudi Arabia, particularly in compulsory courses.

- University priorities

Students tended to the view that graduates' employability was not a priority at their university. Some students mentioned the age and traditional outlook of the lecturers as being a barrier to acquiring generic skills: the teachers did not seem to be aware of the modern labor market and its changing needs. Instead, as indicated by some students, the teachers focused on course content and teaching methods that were more suitable for accountants of the past. This factor can also be regarded as a teacher-related constraint because the educators do not have the expertise to help students develop generic skills. It is also institution-related because the universities are either not hiring educators who can help with students' development of the necessary skills, or not providing the resources for staff to do so.

(2) Student-related constraints

- Student motivation

Several students mentioned that the activities presented in class were not sufficiently stimulating or motivating and focused only on basics. Prior studies have also pointed out that boredom and less enjoyable or satisfying classes can lead to low levels of motivation in students, and thus, a low level of competence acquired at university (Bui and Porter, 2010; Marriott and Marriott, 2003). This constraint could also be teacher-related, as it is the teachers who select the activities and the methods of instruction. However, motivation could also be linked to the students' own individual personalities, expectations and differences, which may mean they perceive lessons or class activities as boring: some students have better attitudes toward learning than others (Parvaiz, 2014). It is also possible that a student may lack the motivation to develop generic skills during their university course because he or she merely wishes to get good marks in the exam.

- Aptitude and ability and pre-university teaching

Another constraint is that students lack the ability to improve their generic skills. The students recognized either that their own ability was a constraining factor or that all students, in general, lacked generic skills ability. As indicated by Stoner and Milner (2010), sometimes, it is students who may not have the innate ability to grasp certain concepts or develop some generic skills. In the open-ended questions, some students mentioned the level of skills acquired during school education as being a barrier, suggesting that the issue of student ability is closely related to their pre-university education. Prior education was also identified as a constraint for developing generic skills in accounting education by Ha *et al.* (2012) in Vietnam, where, as a result, educators had to spend time teaching basic skills at university.

- Teacher-related constraints

Most of the constraints identified by the majority of the students were student-related or institutional constraints. However, the open-ended questions also revealed some teacher-related constraints. Some students mentioned the lack of communication with the teaching staff. It appeared that the educators were unable, unwilling, or overlooked the need to communicate the importance of generic skills. It is possible the educators did not have enough time to answer students' questions after a class or tutorial (Milner and Hill, 2008). There were also some comments that related to the educators' unfamiliarity with the current trends in the accounting marketplace, educators not caring (or not seeming to care) about students' career success and poor teaching skills. In spite of these insights, it is important to note that the majority of the students did not seem to view their educators as lacking expertise, or unaware of the importance of generic skills.

Overall, the responses paint a picture of a degree involving many courses with large classes, most of which were very theoretical, allowing little time for the development of generic skills. The amount of theoretical content in the course is typical of the Saudi accounting curriculum in the main universities, as it needs to cover conventional and Islamic finance and accounting principles. Some students might also be poorly prepared by their prior education, so they had to spend a lot of time "catching up," with the teachers having to teach basic content or skills. The lack of time created by the course load and the need to learn the theoretical content means that they also cannot acquire generic skills through extracurricular activities. In addition, the lack of motivation (e.g., through boredom, a focus on getting good marks, lack of family support, or personal traits) created a further barrier towards acquiring generic skills. Students also perceived the university as not

seeming to prioritize graduate employability, and this is perhaps worsened by the lack of communication between students and educators. Because of these constraints, it is not surprising that the students viewed the achievement of their desired level of competence in generic skills as being unlikely [4].

6. Conclusion

Since the early 20th century, the development of generic skills in the accounting program has been an issue, and it is still of concern in the 21st century. Although there has been less debate about the generic skills of accounting graduates in the Saudi continent, the topic has also come to prominence in recent years (AlMotaairy, 2016).

As there is little literature on generic skills as perceived by final year accounting students in Saudi Arabia, this study is exploratory and sets out to examine Saudi students' views on the important generic skills, as well as the levels of competency they need to acquire and expect to have acquired, during their course of study. The results show that the final year Saudi students believed that ethical, intellectual, personal, interpersonal and communication and organizational and business management (OBM) skills are important and necessary for employment, with ethical skills being the most important overall. They also believed that they should acquire a reasonably high level of competence in all the generic skills while at university, especially in ethical skills. The finding of a constraints gap in all five skills categories indicates that the students expected to fall short of their desired level of competency.

Some of the constraints perceived by the students that contributed to the constraints gap include an overly theoretical or content-focused teaching style, large class sizes, lack of time and a failure by the university to prioritize employability or the development of generic skills, alongside a lack of student ability. As institutional constraints appear to be the main hindrance to the development of generic skills at universities, Saudi accounting education providers need to reflect on these areas (e.g., by having smaller class sizes, promoting teamwork and exposing students to practical and critical thinking problems and experiences). For helping students develop their abilities in learning skills, the Saudi government may need to revisit the school curriculum, which has been criticized as stressing rote learning with little emphasis on analytical and critical learning thinking skills (Mosaad, 2016). The students' indication of their lack of ability perhaps reflects that they were also not learning the necessary skills, such as questioning, problem solving and creative thinking, in schools, where the principles of education are rooted in the teachings of Islam and sharia law. The insights gained from this study suggest that there is certainly room for improvement in the development of generic skills in the Saudi accounting degree program. With a society that is currently dependent on foreign skills and expertise, and with the Saudi Organization for Certified Public Accountant's recent commitment to adopting the IFAC accounting education standards, the accounting education providers need to seriously look at ways to enhance the employability skills of their accounting graduates. For its Saudization program to be successful, more needs to be done to help graduates develop the necessary skills required by employers.

"Skills gap" is indeed a worldwide issue, owing to a combination of constraints (institutional, student or teacher related) that impede students' acquisition of skills at university. The insights gained from this study and those of prior studies suggest that students from different cultures and educational systems may regard certain skills development as more important than others, and differ in their perceptions of the need to acquire specific skills. Therefore, there is no "one size fits all" solution to solve the skills gap problem. Instead, it is necessary to consider the constraints in the context of a country's culture and its educational system to help bridge the skills gap problem.

One of the limitations of this study is that the final year students, although having completed most of the accounting degree program, were still studying. It is possible that they might further increase their development of generic skills from the time the survey was completed to when they graduate. However, given that the students surveyed were very close to finishing their accounting degree program, this study makes the assumption that the final year students' current level of competence is the same as the level they will have upon completion. Other limitations of this study include the sample, which was obtained from only four universities in Saudi, so results may not be representative of the Saudi student population as a whole. Future research could extend this study by examining the views of entry-level accountants, employers, educators and the accounting profession to provide further insights into the skills gap issue. Furthermore, this exploratory study provided some interesting insights into the issue of the constraints gap and its possible contributing factors obtained from both open- and closed-ended questions. Future empirical research could extend this study by examining in detail the contributing factors that drive the constraints gaps.

Notes

1. The data were collected for a much wider project of which this study is a part. See [Al-Mallak \(2018\)](#).
2. For the "importance of generic skills" category, only the responses for ethical skills had a skewness score of slightly lower than -1.0 . The other exceptions of the kurtosis related to the constraints factors: "generic skills is not a priority at my university" and "graduates' employability is not a priority at my university," which had kurtosis scores below -1.0 . See [Appendix 2](#).
3. In a wider project that this study is part of, it is interesting to note that the perspectives of students regarding the constraints gap matched those of educators, for all the five generic skill categories. See [Al-Mallak \(2018\)](#).
4. In a wider project that this study is part of, the perspectives of students regarding constraining factors matched those of educators for all seven out of the eight factors. See [Al-Mallak \(2018\)](#).

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Corresponding author

Lin Mei Tan can be contacted at: lm.tan@massey.ac.nz

Question 1: Importance of generic skills

For each of the skills listed below, please circle the number to indicate how important each skill is required for accounting graduates to be successful in employment after graduation
Please use the following scale 1 (Not Important) to 5 (Very Important)

Generic skills	Level of importance 1(Not Important).....5(Very Important)
Intellectual	
1. Able to locate, obtain, analyse and integrate information from various sources and perspectives	1 2 3 4 5
2. Identify and evaluate alternatives	1 2 3 4 5
3. Apply logical and analytical thinking	1 2 3 4 5
4. Apply professional judgment to reach well-reasoned conclusions	1 2 3 4 5
5. Identify when it is appropriate to consult with specialists to solve problems and reach conclusions	1 2 3 4 5
6. Reason logically and critically analyse the problem	1 2 3 4 5
7. Use innovative thinking to solve problems	1 2 3 4 5
8. Identify and solve unstructured problems	1 2 3 4 5
9. Identify and solve multi-faceted problems	1 2 3 4 5
Personal	
1. Manage own learning using available resources	1 2 3 4 5
2. Take responsibility for own work with minimum direction	1 2 3 4 5
3. Have enthusiasm for ongoing learning	1 2 3 4 5
4. Apply professional scepticism through questioning	1 2 3 4 5
5. Critically assess all information	1 2 3 4 5
6. Set high work standards	1 2 3 4 5
7. Evaluate and monitor own performance from feedback and reflection	1 2 3 4 5
8. Manage time to achieve professional commitments	1 2 3 4 5
9. Manage resources to achieve professional commitments	1 2 3 4 5
10. Anticipate challenges and plan potential solutions	1 2 3 4 5
11. Identify opportunities not obvious to others	1 2 3 4 5
12. Open to new ideas and opportunities	1 2 3 4 5
13. Be flexible in new or different situations/opportunities	1 2 3 4 5
Interpersonal and communication	
1. Work effectively with others	1 2 3 4 5

2. Work in harmony with others contributing towards common goals	1 2 3 4 5
3. Communicate effectively in writing and orally appropriate to the situation	1 2 3 4 5
4. Engage effectively in discussion in a professional manner	1 2 3 4 5
5. Evaluate and present outcomes using oral presentations	1 2 3 4 5
6. Communicate effectively information, ideas, problems and solutions to specialist and non-specialist audiences	1 2 3 4 5
7. Aware of cultural and language differences in all communication	1 2 3 4 5
8. Fluency in English language	1 2 3 4 5
9. Apply active listening and understanding	1 2 3 4 5
10. Apply effective interviewing techniques	1 2 3 4 5
11. Negotiate with people from different backgrounds	1 2 3 4 5
12. Negotiate and manage conflicts	1 2 3 4 5
13. Interact effectively with others in a professional manner	1 2 3 4 5
14. Present ideas clearly and influence others to provide support and commitment	1 2 3 4 5
Organizational and business management	
1. Able to select and assign priorities within restricted resources	1 2 3 4 5
2. Organise work to meet deadlines	1 2 3 4 5
3. Able to review own work to determine whether it complies with quality standards	1 2 3 4 5
4. Able to review the work of others to determine whether it complies with quality standards	1 2 3 4 5
5. Able to motivate and to develop others	1 2 3 4 5
6. Able to organise and delegate tasks	1 2 3 4 5
7. Apply leadership skills to influence others to work towards common goals	1 2 3 4 5
8. Apply tools and technology to increase efficiency and effectiveness e.g., use of internet, spreadsheet, word processing	1 2 3 4 5
9. Apply information technology as a management tool e.g., computerised accounting systems	1 2 3 4 5
Ethics in accounting/business	
1. Understand the nature of ethics in accounting/business	1 2 3 4 5
2. Identify ethical issues and determine when ethical principles apply	1 2 3 4 5
3. Analyse alternative courses of action and determine the ethical consequences of these	1 2 3 4 5
4. Apply the fundamental ethical principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior to ethical dilemmas and determine an appropriate approach	1 2 3 4 5

Question 2: Level of competence

For each of the skills listed below, please circle the number that indicates (i) The level of competence accounting graduates should acquire on completion of academic study and (ii) the level of competence you expect to acquire on completion of academic study.

Please use the scale 1 (Not competent) to 5 (Very competent)

Generic skills	Level of competence that you believe should be acquired on completion of academic study 1(Not competent).....5(Very competent)	Level of competence you expect to acquire on completion of academic study 1(Not competent).....5(Very competent)
Intellectual		
1. Able to locate, obtain, analyse and integrate information from various sources and perspectives	1 2 3 4 5	1 2 3 4 5
2. Identify and evaluate alternatives	1 2 3 4 5	1 2 3 4 5
3. Apply logical and analytical thinking	1 2 3 4 5	1 2 3 4 5
4. Apply professional judgment to reach well-reasoned conclusions	1 2 3 4 5	1 2 3 4 5
5. Identify when it is appropriate to consult with specialists to solve problems and reach conclusions	1 2 3 4 5	1 2 3 4 5
6. Reason logically and critically analyse the problem	1 2 3 4 5	1 2 3 4 5
7. Use innovative thinking to solve problems	1 2 3 4 5	1 2 3 4 5
8. Identify and solve unstructured problems	1 2 3 4 5	1 2 3 4 5
9. Identify and solve multi-faceted problems	1 2 3 4 5	1 2 3 4 5
Personal		
1. Manage own learning using available resources	1 2 3 4 5	1 2 3 4 5
2. Take responsibility for own work with minimum direction	1 2 3 4 5	1 2 3 4 5
3. Have enthusiasm for ongoing learning	1 2 3 4 5	1 2 3 4 5
4. Apply professional scepticism through questioning	1 2 3 4 5	1 2 3 4 5
5. Critically assess all information	1 2 3 4 5	1 2 3 4 5
6. Set high work standards	1 2 3 4 5	1 2 3 4 5
7. Evaluate and monitor own performance from feedback and reflection	1 2 3 4 5	1 2 3 4 5
8. Manage time to achieve professional commitments	1 2 3 4 5	1 2 3 4 5
9. Manage resources to achieve professional commitments	1 2 3 4 5	1 2 3 4 5

10. Anticipate challenges and plan potential solutions	1 2 3 4 5	1 2 3 4 5
11. Identify opportunities not obvious to others	1 2 3 4 5	1 2 3 4 5
12. Open to new ideas and opportunities	1 2 3 4 5	1 2 3 4 5
13. Be flexible in new or different situations/opportunities	1 2 3 4 5	1 2 3 4 5
Interpersonal and communication		
1. Work effectively with others	1 2 3 4 5	1 2 3 4 5
2. Work in harmony with others contributing towards common goals	1 2 3 4 5	1 2 3 4 5
3. Communicate effectively in writing and orally appropriate to the situation	1 2 3 4 5	1 2 3 4 5
4. Engage effectively in discussion in a professional manner	1 2 3 4 5	1 2 3 4 5
5. Evaluate and present outcomes using oral presentations	1 2 3 4 5	1 2 3 4 5
6. Communicate effectively information, ideas, problems and solutions to specialist and non-specialist audiences	1 2 3 4 5	1 2 3 4 5
7. Aware of cultural and language differences in all communication	1 2 3 4 5	1 2 3 4 5
8. Fluency in English language	1 2 3 4 5	1 2 3 4 5
9. Apply active listening and understanding	1 2 3 4 5	1 2 3 4 5
10. Apply effective interviewing techniques	1 2 3 4 5	1 2 3 4 5
11. Negotiate with people from different backgrounds	1 2 3 4 5	1 2 3 4 5
12. Negotiate and manage conflicts	1 2 3 4 5	1 2 3 4 5
13. Interact effectively with others in a professional manner	1 2 3 4 5	1 2 3 4 5
14. Present ideas clearly and influence others to provide support and commitment	1 2 3 4 5	1 2 3 4 5
Organizational and business management		
1. Able to select and assign priorities within restricted resources	1 2 3 4 5	1 2 3 4 5
2. Organise work to meet deadlines	1 2 3 4 5	1 2 3 4 5
3. Able to review own work to determine whether it complies with quality standards	1 2 3 4 5	1 2 3 4 5
4. Able to review the work of others to determine whether it complies with quality standards	1 2 3 4 5	1 2 3 4 5
5. Able to motivate and to develop others	1 2 3 4 5	1 2 3 4 5
6. Able to organise and delegate tasks	1 2 3 4 5	1 2 3 4 5
7. Apply leadership skills to influence others to work towards common goals	1 2 3 4 5	1 2 3 4 5
8. Apply tools and technology to increase efficiency and effectiveness e.g., use of internet, spreadsheet, word processing	1 2 3 4 5	1 2 3 4 5
9. Apply information technology as a management tool e.g., computerised accounting systems	1 2 3 4 5	1 2 3 4 5

Ethics in accounting/business		
1. Understand the nature of ethics in accounting/business	1 2 3 4 5	1 2 3 4 5
2. Identify ethical issues and determine when ethical principles apply	1 2 3 4 5	1 2 3 4 5
3. Analyse alternative courses of action and determine the ethical consequences of these	1 2 3 4 5	1 2 3 4 5
4. Apply the fundamental ethical principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior to ethical dilemmas and determine an appropriate approach	1 2 3 4 5	1 2 3 4 5

Question 3: Constraining factors in development of generic skills

For each statement listed below, please indicate the extent of your agreement that the following factors may have constrained the development of generic skills in accounting education at your university.

Please use the following scale 1 (Strongly disagree) to 5 (Strongly agree)

Constraining factors	1(Strongly disagree).....5(Strongly agree)
1. Generic skills are not considered important by students	1 2 3 4 5
2. Generic skills are not considered important by academics	1 2 3 4 5
3. Large class sizes impede the development of generic skills	1 2 3 4 5
4. Our accounting curriculum tends to focus more on content and less on generic skills	1 2 3 4 5
5. There is insufficient time for the development of generic skills	1 2 3 4 5
6. The development of students' generic skills is not a priority at my University	1 2 3 4 5
7. Educators lack expertise in helping students develop generic skills.	1 2 3 4 5
8. Graduates' employability is not a priority at my University.	1 2 3 4 5
9. Students lack the ability to improve their generic skills	1 2 3 4 5
10. Students' own motivation to develop these generic skills	1 2 3 4 5
Any other constraining factors that impede the development of students' generic skills (please specify):	

Question 4: General questions about generic skills

1- Are there any important skills that are not listed in Questions 1 and 2? If so, please specify them in the box below.

2- Are there any suggestions for improving the development of generic skills for accounting students at your university? If so, please specify them in the box below.

3- Are there any other comments you wish to make related to generic skills? If so, please write them in the box below:

Question 5: Demographics

Please tick the box or fill in the details:

a) Name of University (optional)

b) Gender : Male Female

c) Year of birth:

d) Do you have any work experience?

No

worked part-time foryears

worked full-time foryears

• If you would to receive a copy of the findings of this study, please provide your email address:

.....

Appendix 2
Normality distribution – Descriptive statistics

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
<i>The importance of generic skills</i>					
Intellectual	255	-0.65	0.153	0.077	0.304
Personal	244	-0.658	0.156	0.183	0.31
Interpersonal/communication	239	-0.744	0.157	0.458	0.314
OBM	242	-0.785	0.156	0.051	0.312
Ethics	244	-1.182	0.156	0.643	0.31
<i>The level of competence that should acquire</i>					
Intellectual	211	-0.629	0.167	0.081	0.333
Personal	211	-0.604	0.167	-0.305	0.333
Interpersonal/communication	211	-0.723	0.167	0.08	0.333
OBM	211	-0.66	0.167	-0.206	0.333
Ethics	211	-0.753	0.167	-0.261	0.333
<i>The level of competence expected to be acquired</i>					
Intellectual	211	-0.091	0.167	0	0.333
Personal	211	-0.361	0.167	0.023	0.333
Interpersonal/communication	211	-0.306	0.167	-0.396	0.333
OBM	211	-0.349	0.167	-0.165	0.333
Ethics	211	-0.406	0.167	-0.574	0.333
<i>The constraining factors</i>					
Generic skills are not considered important by students	250	0.762	0.154	-0.675	0.307
Generic skills are not considered important by academics	251	0.65	0.154	-0.912	0.306
Large class sizes impede the development of generic skills	248	0.076	0.155	-0.726	0.308
Our accounting curriculum tends to focus more on content and less on generic skills	251	-0.555	0.154	-0.532	0.306
There is insufficient time for the development of generic skills	251	-0.24	0.154	-0.953	0.306
The development of students' generic skills is not a priority at my University	251	0.071	0.154	-1.276	0.306
Educators lack expertise in helping students develop generic skills	251	0.103	0.154	-0.741	0.306
Graduates' employability is not a priority at my University	251	-0.085	0.154	-1.398	0.306
Students lack the ability to improve their generic skills	251	-0.142	0.154	-0.567	0.306
Students' own motivation to develop these generic skills	251	-0.321	0.154	-0.592	0.306

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