Accounting students' need for important generic and technical accounting skills in university education and as accountants in the workplace

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Mohammed Ali A AL Mallak

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ABSTRACT

Recent changes in the nature of accounting have led to an increasing amount of importance being placed on generic and technical accounting skills within the accounting workforce. However, universities providing training to accounting students do not always adequately teach these skills, such as communication skills, decision making skills and teamwork skills. Very few studies to date have focussed on the generic skills perceived as being important by accountants and accounting students in the Middle East and in Saudi Arabia in particular. This study aimed to research the generic and technical accounting skills perceived as being important by accounting students studying this subject at the major universities in Saudi Arabia and by accountants working at nine major companies in Saudi Arabia. The study employed a survey questionnaire that followed a mixed methods research protocol. Survey respondents were asked about the skills that they perceived as being important, how well the skills were taught and to what extent the skills were used during their degree course, their current level of skill the level of skills they currently held and the level of skill required to get a job in the accounting workforce, and the comparative importance of generic skills compared to technical accounting skills. Survey respondents were also asked to rank a selection of generic skills (communication skills, interpersonal skills, problem solving skills, capacity for analysis and presentation skills) and technical accounting skills in order of importance, and were asked whether there were other generic and technical accounting skills that were important in the workplace. The study explored the differences and similarities between the views of accounting students and accountants, and also the similarities and differences between different subgroups as follows:

- Undergraduate students vs. postgraduate accounting students,
- Male students vs. female accounting students,
- Accountants working for government organisations vs. those working at non-government organisations,
- Male vs. female accountants,

Overall, the study found that the responses of the accountants and the accounting students matched quite closely. One major difference between the two groups was that accounting students were much more likely to be unsure as to the level of skill needed in order to get a job. Accountants were also more likely than accounting students to rate the technical accounting skills above the generic skills. Another very striking finding was that presentation skills were consistently rated as the least important skill by all groups and that it was the skill area that was least likely to have been covered by the accounting degree course. The reasons for this may be cultural or may arise from uncertainty about the definition of “presentation skills”. The findings of this study differed from others in that the accountants in our survey were more likely to consider technical accounting skills as being more important than generic

skills. This may be a result of culture and the Saudi Arabian context. These findings suggest that further work in the Saudi Arabian context is necessary.

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BACKGROUND OF MY COUNTRY, SAUDI ARABIA

- ***General***

Saudi Arabia is the largest country in the Arabian Peninsula, occupying approximately 2.3 million km (See Appendix A for a map). Saudi Arabia has a population of 28.7 million people. Islam is the major religion in the country (CIA, 2012) and the country itself is the site of the most significant Muslim site, Mecca. Saudi Arabia is an Islamic monarchy, currently ruled by His Majesty King Abdullah Ibn Abdul Aziz Al-Saud, who was crowned in August 2005. Riyadh, Saudi Arabia's capital, has a population of over five million. The Saudi Riyal (SR) is the unit of currency, which tends to stay at an exchange rate of SR 3.75 to US$ 1.00

Saudi Arabia's primary industry is oil, as it has the world's largest oil reserves, making it the world's largest producer and exporter of oil. Oil makes up the majority of the gross domestic product (GDP) of $623,000 (which translates to a per capita GDP of $24,200), and forms 90% of the country's economy (CIA, 2012). The remaining 10% (or possibly more) is chiefly fed by the petrochemical industry (the production of ethylene, polyethylene, etc.). Some of these "petrol dollars" are being used as part of a diversification strategy that aims to broaden the industrial base by enhancing the private industrial sector (Al-Amri & Co, 2007). Heavy industries make up the bulk of this diversification, with an emphasis on production and manufacture, such as oil and gas downstream facilities, iron and steel plants, base and intermediate chemical plants and fertiliser plants (Al-Amri & Co, 2007).

- ***Foreign exchange regulations***

As Saudi Arabia has a number of immigrant workers working in the domestic sector and in the petroleum industry, capital and income may be repatriated (i.e. workers are allowed to send the money home to their families), and personal savings and management fees can be remitted abroad without restriction (Al-Amri & Co, 2007). Furthermore, this law also allows foreign investors to take the profits made by investing in Saudi companies – something strongly encouraged by the Saudi Government – back to their home country.

- ***Education***

Saudi Arabia is striving to increase the standard of higher learning and tertiary education, with several new universities having recently been established. This improvement in education is seen as being crucial for economic growth and part of the shift from an oil-dependent economy to a knowledge-based economy (CIA, 2012). Saudi Arabia has to deal with a shortage of skilled workers. Frequently, the skills of Saudi graduates do not match the requirements of the job market, which clashes with the push to see more Saudi graduates holding jobs within Saudi

companies (CIA, 2012). Furthermore, Saudi Arabia has a young demographic, with nearly 50% of the population being less than 21 years old (CIA, 2012).

Saudi Arabia has a system for accrediting graduates and ensuring the delivery of quality and consistent education in Saudi Arabia, known as the National Commission for Academic Accreditation & Assessment (NCAAA, 2009). This framework stresses the development of generic and skills as well as subject-related skills at every level of education. According to the NCAAA, all students must learn these skills alongside the specialised skills required by their subject area, such as technical accounting skills in the case of accounting students, and should reflect Saudi educational policies and cultural norms in this country. A fully trained graduate must be able to do much more than recall information; they should also be able to engage in lifelong learning, have the ability to communicate effectively, including appropriate and competent use of information technology, and should have the ability to take initiative in individual and group activities. Developing these attributes will require use of methods of instruction that take students well beyond simply memorising facts and skills, and needs to emphasise their use in practical situations (e.g. case studies) throughout the degree course (NCAAA, 2009).

- **Accounting and finance in Saudi Arabia**

  - ***Islamic banking and interest***

Saudi Arabia is an Islamic monarchy that is governed by the principles of Sharia law as set out in the Quran. One key principle of this law is that usury (the charging of interest, *riba* in Arabic*)* is strictly forbidden, especially as leads to a concentration of wealth in the hands of a few[1]. The Quran states that "Those that live in *riba* shall rise up before God like men whom Satan has demented by his touch; for they claim that *riba* is like trading but God has permitted trading and forbidden *riba*" (Quar'an, 2:275). In current literature, *riba* (usury) and interest are considered to be interchangeable terms (Mirza and Baydoun, 1999). Charging interest and earning interest are thus forbidden. Interest is considered to be contrary to the principle of social justice, one of the pillars of Islam that undergirds all economic activities in Islam. According to the tenets of Islam, all increase must be the result of effort or work, which includes trading as well as manufacture and primary industries. Interest, however, produces gain without effort, which is forbidden. Finding and using alternatives to interest is one of the basic concepts of the Islamic economic system, such as is growth with equity (Mirza and Baydoun, 1999).

This principle is not unique to Saudi Arabia and is also upheld in Iran, Kuwait, Malaysia, and the United Arab Emirates, among others, which have a system known

[1] It is interesting to note that a very similar principle was also held in the West prior to the Renaissance and the decline in power of the religious authorities. The fears that usury or interest would lead to wealth being concentrated in the hands of the few have indeed been realised in the West since this principle was abandoned (Mirza and Baydoun, 1999).

as “Islamic banking” that is designed to carry out financial transactions, investments and the like without interest. Within Saudi Arabia, the Islamic banks (Al Rajhi Bank and Bank al Jazira) have a competitive advantage over conventional banks, as the majority of those banking via the Islamic banks wish to live according to the principles of Islam, including the prohibition of usury. Conventional banks, however, have customers with a wider range of beliefs (or none at all). Consequently, Islamic banks have access to larger volumes of non-interest bearing assets relative to their asset size, leading to very high spreads and thus higher profitability growth (Global, 2006). Some conventional banks have begun to target deposits through Islamic windows in order to compete with the Islamic banks (Global, 2006).

The system of Islamic banking has implications for accountants and the practice of accounting in Saudi Arabia. The relationship between accountancy and religion, especially the nature of “proper” Islamic accounting is a growing concern (Karim, 1995; Hamid, Craig, & Clarke, 1993). One branch of accounting literature aims to investigate the differences between Western and Muslim business environments and financial institutions. One area that this literature has touched upon is the need for standardised accounting and reporting standards. Companies operating in the GCC[2] and in the Islamic world are expressing a need for accounting and reporting standards to be developed. Alongside religious considerations, it has been noted that accounting costs could be reduced or minimised if accounting standards are agreed on (Mirza and Baydoun, 1999).

- ***Other financial institutions***

Saudi Arabia has both public and private sector institutions that offer loans and provide funding for project development. In particular, three specialised public sector credit institutions exist to provide loans to Saudi individuals and companies: the Public Investment Fund, the Saudi Industrial Development Fund and the Saudi Arabian Agricultural Bank. The private sector has three major industrial groups that provide funding and taking equity participation: the National Industrialisation Company, the Saudi Advanced Industries Company and the Saudi Venture Capital Group (Al-Amri & Co, 2007).

- ***The Saudi stock exchange***

The Saudi Stock Exchange (Tadawul) is the largest in the Middle East in terms of total capitalisation. One of the Saudi Government’s priorities of late has been the privatisation of public. This trend has been exemplified by the privatisation of large public entities such as Saudi Telecommunications and Saudi Electricity. Following the privatisation of these entities, more and more organisations have sought to be listed on the Saudi Stock Exchange (Al-Amri & Co, 2007).

[2] The GCC nations include Bahrain, Saudi Arabia, Oman, Qatar and the United Arab Emirates.

- ***Regulations and incentives for investment***

As mentioned in Section 1.4, one of Saudi Arabia's economic goals is to reduce its dependency on oil and to diversify its economic base, with private enterprise, rather than state-owned enterprises, forming much of this development. The industrial and service sector is likely to play a major role in this diversification. Foreign investment as well as local investment is necessary for this diversification, alongside an increase in technology and expertise, which the country needs. The Saudi Government wishes to encourage the investment of foreign capital, especially in economic development projects. This is another reason behind the lack of restrictions on the flow of money into and out of the country mentioned above, alongside the needs of immigrant workers.

The Saudi Government hopes to attract foreign participation and investment in a number of areas, all of which are seen as critical for the future growth of Saudi Arabia's diversification (Al-Amri & Co, 2007). The first of these relates to import substitution and export oriented ventures, i.e. projects that contribute to technological progress in Saudi Arabia and aid in the development of already established factories (such as those in the Jubail primary industry park) via improvement of production methods and minimising production costs. The second group of projects are directly related to the current economic development in the Kingdom (Al-Amri & Co, 2007).

- ***Foreign capital investment***

According to the Investment Law, any company in Saudi Arabia that has foreign shareholders must have a foreign capital investment licence. These licenses are issued by the Saudi Arabian General Investment Authority (SAGIA) (Latham and Watkins, 2010). In accordance with the aims of the government, there is no limit on the amount of foreign investment that can be invested in a company incorporated in Saudi Arabia and it is even permissible to establish companies that are completely owned (100% owned) by foreign entities. However, even with this liberal climate, a number of activities may not be carried out by foreign investors within Saudi Arabia. The list of prohibited activities, known as the Negative List is reviewed and updated by The Supreme Economic Council from time to time (Latham and Watkins, 2010). Companies with a valid licence from SAGIA can enjoy all the privileges and incentives available to completely Saudi owned companies, including the right to repatriate profits as mentioned above, anti-double taxation treaty privileges, freehold ownership of the property required by the company to carry out its business, and protection by the law prohibiting against expropriation or confiscation of investments, among others (Latham and Watkins, 2010).

- ***Saudi company law***

The Royal Decree in 1965 set forth the Companies Law, which regulates the formation and operations of business entities in Saudi Arabia, followed by amendments in 1967 and 1982, also by Royal Decree. The Company Law covers all types of commercial activities in Saudi Arabia (Al-Amri & Co, 2007). Eight types of business entity are recognised by this law, namely

- general partnerships,
- limited partnerships,
- partnerships limited by shares,
- limited liability companies,
- variable capital companies,
- joint stock companies (corporations),
- cooperative companies, and
- joint ventures

The Regulations for Companies, however, regulates the establishment and governance of Saudi Arabian corporate entities. The main forms of legal entities covered by these Regulations are the limited liability company, the joint stock company and the branch of a foreign company. Other notable forms of legal entities include sole proprietorship and general partnership. A new version of these Regulations is currently being developed (Latham and Watkins, 2010).

The limited liability company is by far the most common form of company in Saudi Arabia and is also the most common corporate entity for equity participation by foreign investors. According to the Regulations and the Companies Law, a limited liability company must have at least two shareholders but a maximum of 50 shareholders. These shareholders can be individuals (i.e. "natural persons") or corporate entities. As is the case for limited liability companies worldwide, shareholders can only be held liable for the debts of the company – if any debt is incurred – in proportion to their interest or share in the company (Latham and Watkins, 2010).

A joint stock company must have at least five shareholders but there is no maximum limit to the number of shareholders, and as is the case for the limited liability company, either natural persons or corporate entities may hold shares in a joint stock company. However, the minimum share capital for a closed joint stock company (i.e. one that does not offer shares for public subscription) is SR 2 million. This share capital subscribed for in cash may be paid for in stages, as long as the amount payable per cash share upon subscription does not drop below one quarter of its par value (Latham and Watkins, 2010); this is, however, subject to the approval of the Ministry of Commerce and Industry.

As described above, branches of foreign companies must comply with the Regulations for Companies and the Company Law, as well as other laws and regulations that apply to their activities within Saudi Arabia. As part of the SAGIA licensing process, an amount equivalent to the capital required by SAGIA must be deposited with a local bank (foreign investors are able to choose between conventional and Islamic banking as they wish). This amount is blocked until the certificate of registration is issued for the branch by the Ministry of Commerce and Industry (Latham and Watkins, 2010). This requirement also applies to limited liability companies and joint stock companies.

- ***Taxation***

Three main forms of tax apply within Saudi Arabia: income tax, zakat and withholding tax. Zakat is another economic principle that is unique to countries such as Saudi Arabia that are under Sharia law. Zakat is a tax on wealth and is levied on Saudi Arabian and GCC natural persons (members of the GCC also follow Islamic principles and tend to be governed by the principles of this religion), wholly Saudi Arabian or GCC-owned entities, and Saudi Arabian or GCC shareholders of companies (Latham and Watkins, 2010). Withholding tax is particularly relevant to all entities that make payments to a non-resident from a source within Saudi Arabia, and covers rents; royalties; management fees; air tickets, air freight and maritime freight; and international telecommunications services.

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CHAPTER ONE: INTRODUCTION

1.1 Overview

This chapter aims to give a picture of the role of generic and technical accounting skills in the modern accounting workplace, and whether or not these skills have been gained by those graduating from the tertiary institutions where they obtained their accounting degrees. As this thesis aims to focus on this issue in the Saudi Arabian context, this chapter also presents some background details about this country, alongside some aspects of accounting in this context, many of which differ from the situation in Western nations.

Nowadays, it is increasingly difficult for accounting graduates to get jobs. This is partly the result of their lack of important technical accounting skills and generic skills such as communication and teamwork skills, along with rapid developments in university education in developed and developing countries. Many researchers worldwide have noted that graduate employees in both developing and developed countries do not have the important skills that they need in the workplace. One study found that more than 80,000 graduates in Malaysia are still unemployed. They have high academic qualifications but lack the generic skills that are required by employers. This issue has increased in developing countries. For example, in Malaysia, which is a developing country, employers prefer to find workers from abroad rather than employ local graduates who lack these generic skills (Zaini, 2005).

But what is the reason why these qualified people cannot find employment in their chosen field in which they have been trained? According to Institut Penyelidikan Pendidikan Tinggi Negara (IPPTN) (2004), the major cause of graduates' unemployment is a weakness in generic skills such as communication and teamwork skills. Wang and Hamali (2006) found that while the demand for generic and technical skills is increasing, an inadequate exchange of information between educational institutions and workplaces about the importance of generic skills results in graduate unemployment. For example, lack of communication skills is the main factor contributing to graduate unemployment in Malaysia (Zaini, 2005). Professional accountants are increasingly required to have additional skills as a result of developments and changes in the universal business environment (Rebele, Apostolou, Buckless, Hassell, Paquette, and Stout, 1998; Apostolou, Watson, Hassell, and Webber, 2001).

The role of the accountant has undergone major changes. At the same time, the environment in which the accountant operates has become more complex, dynamic and highly changeable. Along with these changes has been the growing perception that accounting training does not produce graduates who are up to the standards

demanded by their professional roles. This has prompted reviews of the accounting courses offered in various countries (for example, the US, Australia, the UK and New Zealand), with a view to upgrading the skills of accounting students to enable them to fit more appropriately into their professional roles (Jackling, 2011). For example, the need to provide programmes for teaching a range of generic and technical accounting skills was emphasised in 1996 by the Australian Society of Certified Practicing Accountants (ASCPA) and the Institute of Chartered Accountants in Australia (ICAA) (ASCPA and ICAA, 1996).

A report by the American Institute of Certified Public Accountants (1999) stated that it is essential that Certified Public Accountants (CPAs) acquire leadership and communication skills in addition to technical accounting skills (Jackling, 2011). All these studies are in agreement that in addition to the technical skills taught in accounting courses, it is essential that accounting students also learn cognitive and behavioural skills. In other words, a variety of generic and technical accounting skills are needed for students to be successful in the rapidly developing global business environment (De Lange, Jackling & Gut, 2006).

This study aims to fill a gap in the literature on generic and technical accounting skills by exploring the gap between the perceptions of accountants and those of accounting students in the Saudi Arabian context, and exploring how well these skills, both generic and technical, were covered by the degree courses of these two study groups. Few studies, if any, have considered this nation, with its recent emphasis on training citizens for skilled work, rather than relying on foreign labour, and the unique demands of accounting in an Islamic nation.

1.2 Background

Hodges and Burchell (2003) pointed out that most learning institutions provide students with relevant employment experience, but they do not provide students with the right balance of generic and technical skills, often favouring the technical skills over the generic skills, and this may lead to real problems for graduate employees in the workplace. Gilbert, Balatti, Turner & Whitehouse, (2004) noted that good training in generic and technical skills involves gaining plenty of experience and being involved in learning situations that integrate skills, knowledge, values and attitudes, so all learning institutions should develop important generic and technical skills by integrating these skills with teaching.

According to Adler and Milne (1997a), who investigated accounting education in New Zealand, accounting programmes remain focused on the technical accounting skills far more than on the generic skills, including communication and teamwork skills. Milner and Hill's work in the UK (2008a) found that the generic skills courses taught at university were not appropriate for accounting students and that some

academics think that students only need to gain technical accounting skills rather than generic skills.

Today, corporations are considered the main consumers of generic and technical accounting skills. Husain, Mokhtar, Ahmad and Mustapha (2010) found that employers are interested in generic skills as well as specific training of graduates, and they think that students are highly likely to need generic in their future work. In addition, Gibb *et al*., (2004) pointed out that "Generic skills are important because there have been significant changes in the economy and in the way organisations operate which require workers to have these skills" (p. 16).

Te Wiata (2001) argues, however, that graduate students in Australia get enough practice in generic and technical skills that are linked to university education and the workplace. Students in the USA thought that generic skills were promoted during their studies in accounting programmes (Donelan and Reed, 1992). Callan (2003) also argues that many teachers reported that the main generic skills are promoted to students by teachers, and students understood these skills. These teachers believed that graduate students gain the main generic and technical skills in their university course and they are able to work in different industries.

According to Husain, *et al*. (2010), undergraduate students were highly competent in generic and technical skills. Wang and Hamali, (2006) pointed out that graduates felt that "the skills that they acquired during their studies such as communication, computer literacy, interpersonal skills, public speaking, leadership and report writing were particularly relevant to their work" (p.12). Julian (2004) noted that communication skills have been described through standards and curricula for many years; students clearly understood these skills. Reed and Kratchman, 1989; and Warnock, 1997 pointed out that undergraduate students perceived that if they succeeded in their university studies, this would develop generic and technical skills.

However, many studies argue that generic skills are not quite so important for graduate students in order to enter the workforce (AC Nielsen Research Services, 2000; Bennett, Dunne, & Carré, 2000; Crebert, 2002; Leggett, Kinnear, Boyce, & Bennett, 2004). Another researcher (Atkins, 1999) believes that students can acquire important generic and technical skills throughout their lives and are able to improve important generic and technical skills in their day-to-day living, travelling and community work, or by joining societies (e.g. Lions, Rotary, etc.) that increase their confidence and employability in the future. Cranmer (2006) recommended that developing generic and technical skills effectively can be achieved through training in the workplace, rather than providing these skills within accounting papers.

In the field of accounting, many studies have examined the need for generic and technical accounting skills in a range of organisations. Albrecht and Sack (2000) and Kavanagh and Drennan (2008) pointed out that the accounting profession has come under pressure because the number of unsuccessful corporations has increased, and developments in technology and economy have decreased the costs of information and increased the competition between organisations worldwide. This has meant that accountants now need to cope with more information and more job pressure, especially if they lack certain skills, either technical or generic. The International Federation of Accountants (IFAC) (1996) pointed out that professional accountants can be successful if they gain sufficient generic and technical accounting skills during their education. Many studies noted that technical accounting skills are not enough for accountants to be successful, and they need to develop other skills to obtain employment (Aikin, Martin and Paolillo, 1994; Watty, Cahill and Cooper, 1998).

Albrecht and Sack (2000) and Howieson (2003) suggested that the development of generic and technical accounting skills has to be included in accounting programmes. Some studies recommend that accounting faculties need to educate and improve their students' knowledge of the importance of these generic and technical accounting skills (Usoff and Feldmann, 1998). Many studies have shown that accounting students who possess a combination of generic and technical accounting skills are better placed to address the complexity and dynamism of the business environment than those who only possess technical accounting skills (Nunan, Rigmor, & McCausland, 2000; Bowden, Hart, King, Trigwell, & Watts, 2000; Jackling, 2011). The professional organisations predict that accounting students with numerous generic and technical accounting skills might be better able to integrate into workplaces after they finish their university studies (ASCPA and ICAA, 1997).

1.3 Problem statement

Many recent studies from Australia (Wiata, 2001; Curtin, 2004; Gibb, 2004) have shown that there is a need for graduate employees to have good generic and technical skills. Graduates should be confident within the workplace environment that they can gain the important skills that will support them in future in their jobs (Gibb 2004 and Curtin, 2004). Athiyaman (2001) found that students thought that university education in Australia was still not delivering the generic skills that are considered important to their jobs. These problems have been found in many developing and developed countries such as Malaysia, UK and Australia; consequently, economies in these countries could be negatively affected by these universal issues (Athiyaman, 2001; Wang and Hamali, 2006; Milner, and Hill, 2008a). Accounting professionals should be equipped with technical accounting skills and generic skills such as communication, the ability to work in a team (teamwork skills) and interpersonal skills, which can meet the changing economic environment (De Lang et al., 2006). It

is now common for many industries to require workers who have adequate generic skills (De Lang *et al*., 2006).

Albrecht and Sack (2000) found that the generic and technical accounting skills which are practised within accounting education courses in the USA do not match the market requirements and these courses have failed to emphasise the generic skills needed by students to help them obtain employment. The need for technical and generic skills is considered to be essential in business challenges, and there is an increased level of emphasis on important generic skills in the workplace market (Jackling and Keneley, 2009). A new style of professional accountancy, related to generic and technical accounting skills, should be practised to match the recent developments in economics (De Lang *et al*., 2006). According to Birrell (2006), although many countries are suffering from a lack of generic and technical accounting skills, employers want a variety of generic and technical accounting skills from new accounting graduates to meet business challenges.

Recently, many developed countries such as Australia, UK and New Zealand have started to emphasise the importance of generic and technical skills so students can meet future challenges resulting from the rapid developments and the changing economic environment (Athiyaman, 2001; Wiata, 2001; Milner and Hill, 2008a; Wells, Gerbic, Kranenburg, & Bygrave, 2009). These changes mean that accounting students need to learn important technical accounting skills and generic skills that are essential in their future work such as communication, teamwork and problem solving. Although universities have considered the need for generic and technical skills in different ways, one study found that students thought that universities were still not providing these skills (Athiyaman, 2001).

While the importance of generic and technical skills for graduates is widely acknowledged, there is no identification of the specific skills that university programmes should focus on (Jackling and Keneley, 2009). Fallows and Stevens (2000) pointed out that there is a weakness in defining generic skills. Barrie (2006) found that graduates still do not understand what generic and technical skills they should have when they enter the workforce.

The developed countries such as the UK, New Zealand, and Australia have been at the forefront of ensuring that accounting graduates acquire the generic and technical accounting skills that will enable them to become more employable, better participants in the social and economic activities of their countries, and instruments for social good in their countries (Athiyaman, 2001; Wiata, 2001; Milner and Hill, 2008a; Wells et al., 2009). Over the last three decades, when the need for generic and technical accounting skills started taking root, most of the research studies in this area

have been focused on the developed world to the complete exclusion of developing countries and non-Western countries such as Saudi Arabia.

Many studies have been conducted in developed countries to explore the importance of generic and technical skills for graduates and how these students' skills meet the employers' perceptions of what is required in the accounting workplace (Francis and Minchington, 1999; Hassall, Joyce, Arquero Montano and Donoso Anes, 1999, 2005; Arquero Montano, Donoso, Hassall, and Joyce, 2001, 2004; Gammie, Gammie, & Cargill, 2002; Tempone and Martin, 2003; Tan, Fowler, & Hawkes, 2004). However, there have been few studies that are related to this subject in developing countries and one of these countries is Saudi Arabia.

1.4 Accounting in Saudi Arabia

In Saudi Arabia, the Ministry of Commerce regulates the accounting profession as a whole, and issues licences to qualified and suitably trained individuals. The only available statistic indicates that there are approximately 400 accountants who are licensed to practice in Saudi Arabia (Al-Amri & Co, 2007).

Professional standards for accounting and auditing are being developed, especially given the unique requirements of Islamic banking and the liberal foreign investment laws. To this end, the Saudi Organisation for Certified Public Accountants (SOCPA), part of the Ministry of Commerce has been tasked with developing these standards as well as holding examinations that must be passed for a practising licence to be issued (Al-Amri & Co, 2007). Thus far, several standards and codes of practice have been put forward by SOCPA, namely: the Certified Public Accountants Code, the Saudi Arabian Auditing Standards, the Saudi Arabian Accounting Concepts and Objectives and the Standard of General Presentation and Disclosure, and the Saudi Arabian Accounting Standards (Al-Amri & Co, 2007).

If guidance is not available about a particular issue in the Saudi Accounting Standards, companies must follow the International Financial Reporting Standards.

Annual audits are required by the Companies Law, and all companies licensed by SAGIA must file their audited financial statements with the Ministry of Commerce no later than six months after the tax year ends. Companies that have foreign participation and investment must also file a special report to the Ministry of Industry and Electricity (Al-Amri & Co, 2007). Any date may be selected as the end of the accounting year, but this date must be specified in the memorandum or articles of association when the company is first registered.

According to Saudi law, if a company operates within the country with a capital of SR 100,000 or more, they must keep a number of accounting records – in Arabic rather than the native language of the company's home country – in order to comply

with the Commercial Book-Keeping Regulations. These records include original journal, an inventory book and a general ledger. All correspondence relating to the entries within these records must be kept and for auditing purposes, and these records and the related correspondence must be kept for a minimum of ten years (Al-Amri & Co, 2007).

1.4.1 Accounting standards

There has been a move over recent years to standardise accounting regulations within the Gulf Cooperation Council (GCC) nations to improve cooperation and financial efficiency among these countries (Hussain, Islam, Gunasekaran and Maskooki, 2002). The GCC countries plan to adopt the international accounting standards (IAS), but with some differences, described below.

Current Saudi requirements are based on Governmental Regulations for Companies and on accounting standards issued by the Saudi Organization of Certified Public Accountants (SOCPA) (Joshi & Al-Mudahki, 2003). A small series of accounting standards are issued by SOCPA but these are not enough to form a comprehensive basis for accounting. SOCPA has stated that the US Generally Accepted Accounting Principles (GAAP) should be adopted for issues that are not covered by the SOCPA standards but only after taking the circumstances of the Kingdom of Saudi Arabia into account. Interpreting the meaning of "taking the circumstances of the Kingdom of Saudi Arabia into account" is debateable and often, the US GAAP is not fully adopted (Joshi & Al-Mudahki, 2003).

Due to the size of the firms in the GCC, it is more cost-effective to rely on IAS than to build standard setting consultation units for the purpose of auditing (Joshi & Al-Mudahki, 2003). Auditing firms play an important role in providing guidelines in selecting the standards to be maintained but in individual firms, the accounting policies are set by the accounting controller and approved by the directors.

Most GCC countries have adapted the IAS to suit the needs of the cultural context, but there are number of areas where they differ in accounting practices. The differences are observed in accounting policies and practices, regulatory and supervisory environments and auditing. These differences are partly due to their diverse social values and regulatory environments (Hussain, *et al.* 2002). However, the IAS sometimes clashes with the culture, especially in the area of Islamic banking. This is especially the case regarding interest and investments: interest is taken for granted in the IAS but is strictly forbidden under Sharia law, meaning that reconciling the two sets of principles/standards is very difficult (Hussain, *et al.* 2002). Furthermore, Islamic banks do not hold to a particular accounting standard. A number of issues will need to be resolved before the GCC can adopt a culturally appropriate version of the IAS (Hussain, *et al.* 2002).

The proposed harmonization of accounting standards is likely to increase the transparency and efficiency of the GCC countries' financial institutions and to facilitate globalization. This harmonization would require accounting practices and policies that affect cross-border transactions (such as tax for foreign ventures and corporate tax) to be considered, in order to harmonize the accounting practices/standards in GCC countries (Hussain, *et al.* 2002).

1.5 Aims and objectives:

The chief aim of this research was to establish what the most important generic and technical accounting skills are for accounting students at the six main universities (Universities 1-6) and for accountants in the nine main workplaces in Saudi Arabia (Workplaces 1-9). It also sought to highlight, for both groups, how well generic and technical accounting skills are (or were) taught at university as part of the accounting degree course and how well the skills are used in the university setting. Furthermore, the study also considers the skills which accounting students have, and the skills which they consider important for them to become employed. It also looked at the skills which practising accountants have, and the skills which they perceive are required in their jobs. Finally, the research study attempted to rank the generic and technical accounting skills in order of their relative importance, open-ended questions were used to determine if there were important generic skills missing, and to evaluate the relative importance of generic skills relative to technical accounting skills.

The researcher expected that this study would produce findings which will be useful for both accounting students and accountants in Saudi Arabia by determining the main generic and technical accounting skills that they need to cover as part of their university degree course in this area, so they can face challenges in their studies and their work in the future.

It is necessary to further explore the need for important generic and technical accounting skills and specific factors contributing to increased job opportunities for graduate accounting students. Graduates also need to be as efficient as practicing accountants so that they can be successful in their work in Saudi Arabia.
This study therefore aimed to:

1- Explore the perceptions of accounting students regarding which are the most important skills (including the generic skills and the technical accounting skills) in the universities Saudi Arabia.
2- Discover what the largest accounting firms in Saudi Arabia perceive to be the most important generic and technical accounting skills for accountants.

1.6 Method

This study relies on a mixed methods research approach (quantitative and qualitative) for formulating research questions, collecting and analysing data, and interpreting

results. This study used the interpretive paradigm and used a quantitative method (questionnaire – survey), which included seven quantitative questions and one open-ended qualitative question.

The location for this research was Saudi Arabia. There were two groups of subjects in this study: accounting students from six universities and accountants from nine of the largest organisations in Saudi Arabia. The researcher met or emailed these participants and asked them to complete the questionnaire. The questionnaire was completed by hand given or electronically, and then returned to the researcher.

The researcher randomly selected 120 accounting students and 51 qualified accountants (including both male and female practitioners).

1.7 Rationale of the study

This study can be justified on various grounds. First and foremost, there is a glaring dearth of research into generic and technical accounting skills in the developing world in general and in Saudi Arabia in particular. As stated by McLean (2010, p.7), "considerable research opportunities exist in the Gulf Cooperation Council countries in terms of research involving 'ideal' or 'employable' graduate attributes." The paucity of data available in this regard refers to higher education in general and not to the accounting profession in particular. As such, a huge gap exists, which this research study will help to fill. Its original value lies in the fact that, to the best of the researcher's knowledge, it is the first such study on generic and technical accounting skills in Saudi Arabia. As such, it is likely to be of considerable value and interest to scholars and educators, and will provide a valuable body of information upon which future studies may build.

The study is also likely to be of benefit to accounting students and to society in general. As Bowden *et al* (2000) point out; universities have traditionally acted as agents of reform and social good in the countries in which they operate. In order for the graduates leaving the universities to play such a role of improving their future work effectively, they require generic attributes such as leadership, communication and interpersonal skills in order to properly function in that role. By highlighting the need for accounting students to acquire such skills, this study will bolster the acquisition of such skills and general social good, thus helping to drive the wheel of transformative reforms in Saudi Arabia.

1.8 Scope and limitations of the study:

The study tried to explore the perceptions of the relative importance of technical accounting skills versus generic skills for accounting students and accountants. It focused on accounting students and accountants in Saudi Arabia, and more

specifically on accounting students from the six main universities (Universities 1–6) and accountants at the nine largest workplaces in Saudi Arabia (Workplaces 1–9). There are many universities and workplaces in Saudi Arabia but this study focused on the main universities and workplaces.

Because of time constraints, this project has covered just two sample populations: accounting students and accountants. This study used two techniques for delivering questionnaires to study participants: emailing (Microsoft Word) and by hand for male participants, and emailing only for female participants to avoid difficulties in scheduling face-to-face interviews with women[3]. The techniques chosen allowed for easy data collection but meant that the possibility of collecting qualitative data was limited.

Initially, there was a possibility of also examining how to improve these generic and technical accounting skills for accounting students and accountants, and the requirements for teaching these generic and technical accounting skills to these groups. However, the decision was made to limit this research by focusing on determining the important generic skills for accounting students in university education and accountants in the workplace, how well generic and technical accounting skills are taught, examining which generic and technical accounting skills were perceived to have been mastered, identifying the skills gained by practicing accountants, identifying the skills which are actually required in the accounting workplace, and ranking the different skills to compare the relative importance of generic and technical accounting skills within these two populations.

1.9 Study outline

Chapter 2 contains a review of the literature regarding the generic and technical accounting skills, their role in the modern accounting world and how these skills have been addressed by those providing tertiary education to accounting students. Chapter 3 outlines the research methodology, Chapter 4 presents the results of the questionnaire and Chapter 5 discusses the findings. The thesis is summarised in Chapter 6.

1.10 Summary

Many studies have commented on the gap between the skills taught to the students through their degree course, especially in the area of generic skills, and the need for training institutions to provide accounting graduates with the necessary generic and technical accounting skills. This research aimed to explore this topic in the Saudi Arabian context, using a questionnaire to discover the perceptions of accounting students and accountants in the workforce regarding the skills taught as part of their

[3] . Saudi Arabia's cultural norms mean that it is inappropriate for a male researcher to interview female subjects unless they are chaperoned.

accounting degree course and whether these generic and technical accounting skills were used or not at university, the level of skill needed in order to get a job as an accountant, the level of skill survey participants currently held, and the relative importance of a range of generic skills to each other and to technical accounting skills. The study chose to focus on Saudi Arabia because of a lack of studies focussing on this area in this country and because the author is familiar with this culture and context.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of the literature regarding the generic and technical accounting skills, their role in the modern accounting world and how these skills have been addressed by those providing tertiary education to accounting students.

As mentioned in Section 1.4.3, universities in Saudi Arabia are strongly encouraged to teach generic or non-technical skills at every level of education, including tertiary education. Generic (non-technical) skills are defined as those that are common to all jobs and professions, from the humblest to the most technical (Straub, 1990). These skills are not specific to accounting. Generic skills are considered to be important because the tasks related to the technical skills can be carried out better if an employee is in possession of the generic skills as well as the technical skills (Roger, 1996).

A number of researchers tend to separate non-technical or generic skills into categories, with a number of classifications being used. Neal (1981) separates generic skills into behaviours and attitudes. Behaviour that reflects a good level of generic skills includes punctuality, the ability to follow instructions, social (interpersonal skills) and communication skills. Attitudes that demonstrate a good level of generic skill include the ability to adapt, ambition, confidence and helpfulness. Munce (1981), on the other hand, divides generic skills into functional skills and adaptive skills. Functional skills are closer in nature to technical skills and include problem-solving skills, communication, decision making and questioning (Lange, 2000). Adaptive skills are those that allow the employee to interact with the tasks and the people around them and include skills such as team work and organisational skills.

A number of generic skills have been identified with technical accounting skills throughout the body of accounting literature as being important for accountants, as detailed below.

- Generic skills are:
  - Communication skills,
  - Interpersonal skills,
  - Problem solving skills,
  - The capacity for analysis (analysing skills),
  - Teamwork skills, and
  - Presentation skills.
- Technical accounting skills

It must be stated that these different categories of generic skills are not clear-cut. For example, there is a degree of overlap between, for example, communication skills and presentation skills, teamwork skills and interpersonal skills, and capacity for analysis and problem solving skills.

Each of these generic skill areas, along with technical accounting-specific skills, will be explored separately in the remainder of this literature review. As part of this review, we will investigate what previous research has found regarding the perception of these skills by students studying accounting as part of their degree, and by accountants in the workplace, and also by the teaching staff who deliver accounting degree programmes.

The relative importance of generic non-technical skills as opposed to technical accounting skills is open to some debate in the literature, with some researchers arguing that if a graduate has a good level of the generic skills, he or she will have improved work performance and job outcomes, while others query this assumption. For example, Palmer, Douglas, & Pinsker, (2004) found that generic skills were necessary for accounting graduates to be successful in their professional roles within the workforce. On the other hand, Smigla (2003) held that that generic skills are not as important as technical accounting skills if an accounting graduate wishes to move up from an entry level position in the workplace. However, the International Federation of Accountants (2003) supports the position that generic skills are needed by accountants in order to make them "life-long learners ready to adapt to a changing business world" and thus more able to succeed in the workplace in the long-term as technology, etc. changes over time.

2.2 Defining generic skills

Generic skills need to be identified and defined. One set of generic skills was identified by Mayer (1992), who specified seven key competency strands:

- collecting, analysing and organising ideas and information (capacity for analysis);
- expressing ideas and information (communication skills);
- planning and organising activities;
- working with others and in teams (teamwork skills);
- using mathematical ideas and techniques (which could be viewed as being a branch of technical accounting skills);
- problem solving skills; and
- using technology (this could include presentation skills using software such as PowerPoint as well as computer literacy in general).

The UK National Skills Task Force (1998) identified a very similar list of generic skills: communication, application of mathematical principles, problem-solving, teamwork skills, use of information technology, and the ability to self-improve learning and performance.

The lists of Mayer (1992) and the UK National Skills Task Force (1998), one could come up with the following range of generic skills, which can be broken down into

two main categories, “hard” (knowledge and thinking skills) and “soft” (people-focussed) skills, as follows:

- Hard skills:
  - literacy,
  - numeracy,
  - problem-solving skills,
  - information technology skills,
  - systems thinking;
- ‘Soft’ skills:
  - interpersonal, inter-group and cross-cultural communication skills,
  - team building and teamwork skills,
  - time management skills,
  - customer service skills,
  - lateral thinking and creativity’
  - reflective skills.

Several authors have investigated the generic skills that employees need in order to cope efficiently in modern work environments (Terry & Callan 1997; Gallois & Callan 1997; Hager, Garrick, & Risgalla 2001; Terry & Callan 1998; Terry, Carey & Callan 2001). Skills and personal traits listed by these authors include a tolerance for ambiguity, robustness/resilience, communication skills, self-confidence and tolerance for change. Other authors (Senge, Kleiner, Roberts, Roth, Ross, & Smith., 1999) have added that employees also need team building (teamwork) skills, systems thinking skills and communication/dialogue skills.

Some of these skills are more related to personal attributes and characteristics. These skills are important in the workplace but have not formed part of this research, as it is very difficult for training organisations such as universities to teach these or to assess them. However, these personal traits (self-confidence, capacity to adapt, tolerance of uncertainty and ambiguity, lifelong learning, a willingness to challenge assumptions and ask questions, the ability to learn from on-the-job experiences and self-management skills) are all essential for employees and although it may be hard for a potential employer to assess these skills/traits in a potential employee, possessing these skills/traits may make a crucial difference further on in an accountant’s career, helping them climb further up the corporate ladder.

Kearns (2001) defined generic skills as those which the skills which can be used across a large number of different occupations – skills that are as important for accountants as they are for, say, doctors, shop assistants and mechanics. Kearns pointed out that there is a high degree of uncertainty regarding how these essential skills can be taught to students, and how university classrooms can be set up so that

students have opportunity to gain them. According to Kearns, generic skills can be broken down into four major strands:

- work readiness and work habits,
- interpersonal skills,
- enterprise, innovation and creativity skills,
- learning, thinking and adaptability skills.

After considering all these lists of generic skills, the following were chosen for the focus of this research, alongside technical accounting skills:

- communication skills,
- capacity for analysis,
- teamwork skills,
- problem-solving skills,
- interpersonal skills,
- presentation skills.

2.3 Learning generic and technical accounting skills

Researchers have often asked how the generic and technical accounting skills are taught to accounting students, especially at undergraduate level, and to what extent the generic and technical accounting skills are used while the students are at university. A number of different points of view and opinions are held by various authors.

Bowden *et al*. (2000) argue that most of the generic skills can be incorporated into the accounting curriculum and that students can learn the skills alongside the technical accounting skills. This point of view is also held by Mahrous and Ahmed (2010). The Accounting Education Change Commission (AECC, 1990) hold that while these generic and technical accounting skills can and should be taught as part of the accounting degree course, these generic skills need to be put into the accounting context (e.g. within scenarios or case studies) in order to make them more relevant to students. This is similar to the view held by Kennedy and Dull (2008) and by Daff, Lange, and Jackling, (2011).

Cranmer (2006), however, argues that generic skills should be taught separately from the technical skills and goes so far as to suggest that generic skills learned as part of the degree course have little or no value regarding the employability of accounting students upon graduation. Instead, Cranmer holds that these skills are best learned on the job rather than as part of the degree course. In a similar vein, Kavanagh and Drennan (2008), and McLean (2010) claim that accounting students often graduate without having learned the generic technical accounting skills adequately or to have used them to any great extent at university as part of their accounting degree course. McLean (2010) suggests that this may be because no consensus about which skills are the most important or how they should be taught. Another researcher, Jones (2009), has identified a number of barriers to generic skills being taught as part of a

degree course in a number of disciplines (but not specifically accounting). These specific barriers can be structural (a lack of time to teach generic and technical accounting skills or class sizes are too large), pedagogical (generic and technical accounting skills are not considered important by the teaching staff or more emphasis is placed on research), cultural (where the university does not have a good enough grasp on the generic and technical accounting skills required for the workplace) and epistemological (where generic and technical accounting skills are not considered to be part of the subject matter studied and thus not worthy of consideration within an accounting degree course) (Jones, 2009).

2.4 Communication skills

2.4.1 Definition

Communication skills are defined in the literature as skills that enable individuals to be confident and competent speakers/communicators. Ideally, these skills should be learned by all students, including accounting students, by the time they graduate (Oral Communication, 2008). For accountants, aspects of good communication include the ability to state one's opinion or point of view clearly and to defend it in a range of settings (formal and informal), and to use a number of forms of communication (written and spoken) such as writing reports, communicating with clients via email, etc. This overlaps somewhat with the definition of interpersonal skills and presentation skills. Another component of communication skills is the ability to find, organise and use information and other data from a range of sources, including printed material, online sources, human sources and visual media such as television, pictures and DVDs (Montano, Anes, Hassall, & Joyce, 2001). `

The overwhelming majority of researchers maintain that communication skills are important generic skills for all students to have, including or possibly especially accounting students. This position is held by, among many others, Bennett *et al.* (2000), Hesketh (2000), Bowden, Hart, King, Trigwell, & Watts, 2002, Callan (2003), Smith and Comyn (2004), De Lange *et al.* (2006), Wang and Hamali (2006), and Warraich and Ameen (2011) all of whom investigated which skills were perceived as being important by accounting students, employees and employers. Only a very few researchers downplayed the importance of communication skills and the need to include these in university degree courses (Lin, Xiong, & Liu, 2005; Curtin, 2004). Lin *et al.* (2005) undertook their research in Japan and stated that Western nations and workplaces placed a higher emphasis on communication as a generic skill compared to Japanese workplaces, as did other researchers (Albrecht *et al.*, 2000; De Lange *et al*., 2006; Jackling & De Lange, 2009). In this context, it will be interesting how this particular generic skill is perceived in the workplace and by accounting students in Saudi Arabia.

2.4.2 Communication skills in accounting degree courses

A number of researchers have investigated the importance of communication skills within the context of accounting (e.g. Montano *et al*., 2001; Mohamed & Lashine, 2003). Communication skills are perceived as being important in the workplace for accountants because of the increasing amount of technology and information and the rapid changes taking place in the global workplace as a whole. In order to deal with globalised operations and restructured businesses with more complicated operating and production processes, accountants need to know how to access information and to pass on information clearly and concisely. These generic skills may even outweigh the specific technical accounting skills when recent accounting students apply for jobs (Albrecht & Sack, 2000; Ainsworth, 2001; Borzi & Mills, 2001; Aly & Islam, 2003; Burnett, 2003).

Because of the perceived importance of communication skills in accounting, several researchers have maintained that this generic skills should be covered by accounting students' degree courses so that when the students graduate, they have a reasonable level of ability in this generic skill area (e.g. Albrecht & Sack 2000; Henderson, 2001; Forey & Nunan, 2002; Sin, Jones, & Petocz, 2005; Farrell & Farrell, 2008; Jones & Abraham 2008).

Because of the importance of communication in the workplace and the importance of teaching these generic skills as part of an accounting degree course, several researchers have, similar to the aims of this research, investigated how well these skills are taught at the university level. Arquero, Hassall, Joyce, & Donoso, (2007) looked at the communication skills of accounting students in universities in the United Kingdom and in Spain, and found that accounting students, on the whole, had a lower level of communication skills compared to students in other degree courses, a finding that applied in both Spanish and British universities.

In an Australian setting, De Lange *et al.* (2006) found that graduate accounting students believed that communication skills were the most important generic skills for an accountant to have.

Crebert (2000July) found that communication skills were the generic skills that were consistently rated as important and received considerable attention as part of the degree course. Looking at the field of accounting in particular, Schmidt, Green, & Madison, (2009) found in a survey of faculty staff working in North American tertiary institutions with a very high number of accounting students that communication skills were considered to be very important and were highly valued within the accounting curriculum. Milner and Hill (2008a) revealed the interesting finding that although funding bodies and the accounting profession as a whole require a high level of communication skills from accounting students upon graduation, the

academic community does not always consider these generic skills to be an important part of an accounting degree course.

Several researchers into accounting and accounting education have found a somewhat worrying gap between the perceived level of communication skills taught or practised by accounting students and the level of these communication skills needed in order to get a job in the field of accounting and meet employers' expectations (Arquero *et al.*, 2001; Gammie, Gammie, & Cargill, 2002; Tempone and Martin, 2003; Tan, Fowler, & Hawkes, 2004; Hassall *et al.*, 2005; Bunn, Barfit, Cooper, & Sandifer , 2005). Similarly, Gray (2010) found that the vast majority of professional accountants (91%) believed that communication skills, especially spoken communication skills, were very important or even essential in accounting graduates.

However, it is not only the accountants already in the workplace who have this perception about the importance of communication skills in accounting. According to Albrecht & Sack (2000) and Henderson (2001), the academics providing the training in accountancy also believe that students need to improve their written and spoken communication skills, and that accounting degree courses should give these generic skills more attention. Similarly, Saunders and Machell (2000) reported that academics providing degree courses have altered their curricula in order to give students the opportunity to gain the communication skills required in the accounting workforce by employers. Tan *et al.* (2004) also found that both those in the workforce and academics perceived various communication skills to be more important for accountants than other generic skills.

These findings are not universal, and other researchers have had different results. For example, in a study of New Zealand accounting students, Sawyer, Tomlinson, & Maples, (2000) found that these accounting students perceived that communication skills were over-emphasised in their accounting degree course. Other researchers have not uncovered any gap between the level of communication skills taught as part of accounting degree courses and the level of communication skills required by employers in the workplace (e.g. Barsky & Catanach, 2005; Ballantine & Larres, 2007a; Fortin and Legault, 2010; Paisey & Paisey, 2010).

2.4.3 Perceptions of accountants in the workplace

Research into the importance placed on communication skills by accountants in the workplace have tended to find that this skill set is rated as being very important (e.g. Stowers & White,1999; Albrecht and Sack, 2000; Baker and McGregor, 2000; Borzi & Mills, 2001; Burnett, 2003; Hassall *et al.*, 2005). One such study took the novel step of researching the job descriptions for accounting positions advertised in newspapers over 20 years. This study found that communication skills were

emphasised more strongly over time, showing that this skill is perceived as being more important in the workplace now compared to in the past (Bunn *et al.*,2005).

In a similar vein, a lack of communication skills is perceived as a disadvantage when seeking employment in the field of accounting, with some employers rating a lack of this generic skill as being highly undesirable in a new employee or recent graduate, indicating the importance of this generic skill in professional accounting (Hancock, Segal, Howieson, Tempone, Kavanagh, & Kent, 2010). Similarly, Bunn *et al*. (2005) found that a lack of communication skills or a low level of communication skills would hinder accountants moving up from entry-level positions within the workforce and progressing up the career ladder.

2.4.4 Comparative importance of communication skills

Several other studies have asked accountants and accounting students to rank the comparative importance of several generic skills. Frequently, communication skills are rated as being very important by a number of groups of respondents. Albrecht and Sack (2000) and Burnett (2003) found that professional accountants were very likely to rate communication skills as being the most important generic skills for accountants to have. Baker and McGregor (2000) surveyed accountants in a number of different companies, accounting students and accounting faculty members, and found that all groups surveyed rated communication skills as being some of the most important skills, especially in order to get a job in the field of accounting.

However, Usoff and Feldmann (1998) found that undergraduate students studying accounting often downplayed the relative importance of communication skills, and tended to underestimate the degree to which both employers and the people teaching their accounting degree course considered communication skills to be important.

Some researchers have even found that communication skills are rated as being more important than technical accounting skills. Fortin and Legault (2010) found that accountants in the workplace rated technical accounting skills as being the fifth most important skill for advancing in an accounting career while communication skills were ranked as being the most important generic skills for accountants to have. Gabric and McFadden (2001) also found that employers rated communication skills as being more important than technical skills, although technical skills were still rated as being very important. Similarly, Holdsworth, Watty, and Davies, (2009) found that communication skills were rated by employers as being more important when deciding whether or not to hire a new employee – more so than previous work experience or qualifications.

Again, several researchers have contrasted different cultures and the relative importance placed upon communication skills. Albrecht and Sack (2000) contrasted

accountants and teaching staff in the USA with their counterparts in Japan, while De Lange *et al.* (2006) and Jackling & De Lange (2009) contrasted the same groups in Australia with their Japanese counterparts. These researchers found that Western accounting professionals and teaching staff considered communication skills to be one of the most important generic skills, and were more likely to do so than their Japanese counterparts. Once more, this emphasises the role that culture plays in the perceived relative importance of communication skills, and this present study aims to investigate how these generic skills are perceived in the accounting context in Saudi Arabia.

Gender, as well as culture, can result in differing perceptions of the relative importance of communication skills in accounting. De Lange *et al.* (2006) found that women were more likely than men to rate communication skills (or skills that could be defined as communication skills) as being the most important generic skills needed in order to get a job. This study also found that women were more likely than men to rate themselves as having a good level of this generic skill, which was perceived as being very important.

Again, not all researchers have found that communication skills are perceived as being the most important generic skills within the field of accounting. Baker and McGregor (2000) surveyed accounting students, accountants in the workforce and accounting faculty staff, and found that the faculty were less likely to rate communication skills as being the most important compared to accounting students and accountants.

This shift in the importance place on communication skills and its relative importance in the workplace for accountants is a recent phenomenon. In the past, technical accounting skills were perceived as being more important, especially as the role of the accountant did not often require him or her to come into contact with many other people and the main activities of the job related to technical accounting skills, e.g. data entry, spreadsheets (especially pencil-and-paper spreadsheets in the past) (Siegel, 2000; Bunn *et al.*, 2005). In the modern world, however, these tasks have been carried out automatically by computers, putting fresh demands on the accountant in the modern world of business.

2.5 Interpersonal skills

2.5.1 Definition

Interpersonal skills are sometimes known informally as “people skills”. This set of generic skills includes those that help people to g*et al*ong with each other and to work together. Examples of interpersonal skills include the ability to interact with a wide range of people from a variety of different backgrounds and value systems (e.g. an accountant in Saudi Arabia may have to work with people from a foreign country

who have invested in a Saudi industry, and this person is quite likely to be from a different culture and to have different religious views). There is a degree of overlap between interpersonal skills, teamwork skills, communication skills and presentation skills. Interpersonal skills also allow an accountant – or any other professional – to work in collaboration with others. Other skills that can be seen as part of the set of interpersonal skills include the ability to organise and delegate work, the ability to motivate others, the ability to resolve conflicts, the ability to enhance relationships with clients and decision making abilities (Jones & Abraham 2008;Kennedy & Dull, 2008; Ballantine & Larres 2009; Awayiga, Onumah, & Tsamenyi, 2010).

In general, interpersonal skills are those that accountants and accounting students are most likely to be lacking in (Jackling and De Lange, 2009). This may be because of the historical role and responsibilities of accountants, which have changed in the modern workforce (Siegel, 2000; Bunn *et al*., 2005). However, Sugahara, Suzuki, & Boland, (2010) state that interpersonal skills are essential for professional accountants in the modern workforce.

2.5.2 Interpersonal skills as part of the degree course

Although interpersonal skills have not traditionally been taught as part of accounting degree courses, the general perception of researchers is that these skills need to be taught so that accounting graduates are able to succeed in the workforce. Montano *et al.* (2001) and Mohamed & Lashine (2003) argue that these skills should be taught in universities and other tertiary institutions that train accountants to enable accounting students to master these skills prior to entering employment. Currently, according to some researchers, accounting students tend to gain these skills after entering the workforce as professional accountants (De Lange *et al.*, 2006).

Quite frequently, accounting students are deficient in interpersonal skills when they complete their degree course (Borzi & Mills, 2001; Packer, 2001; Mohamed & Lashine, 2003). This has led to increased demand for interpersonal skills to be taught as part of the degree course for accounting students, a move that is current in the USA and in other places around the world. According to Jackling & Mcdowall (2008), interpersonal skills are now being included within accounting degree courses in Australia. Jackling & Keneley (2009) also report that Australian universities are beginning to adopt a policy of including interpersonal skills within all degree courses, not just accounting degree courses, as these skills are needed at a reasonable level in the modern workforce.

This drive to include interpersonal skill as part of the curriculum as part of an accounting degree course is part of an overall move towards teaching the generic skills in general to accounting students, as well as the technical accounting skills needed by professional accountants (Hancock *et al.*, 2010).

This drive does not appear to be a purely Western phenomenon, in spite of the results comparing Western and Japanese perceptions of the relative importance of interpersonal skills mentioned below. With a focus on Iranian universities, Mojtahedzadeh, Hossein, Tabari, & Badr, (2010) recommended that the curriculum provided to accounting students as part of their degree course should include interpersonal skills, and suggested that internships are a suitable way to teach these skills to accounting students.

However, some researchers have found different results, namely that interpersonal skills are being covered adequately by accounting degree courses. Farrell and Farrell (2008) found that accounting students had been able to learn interpersonal skills via courses that included cooperative learning. Similarly, Sin and Reid (2006) found that the students they surveyed believed that they had improved their level of interpersonal skills by using them within their degree course. A number of researchers noted that degree courses that included the case method of teaching and learning led to students feeling that they had improved their interpersonal skills while taking that degree course (Sawyer *et al.*, 2000; Arquero Montano, Cardoso, and Joyce, 2004; Ballantine & McCourt Larres, 2004; Weil, Oyelere, & Rainsbury, 2004). Furthermore, Ballantine & Larres (2007a) found that accounting students who had gone through a group assessment process as part of their degree course had had a chance to develop and improve on their interpersonal skills, and that developing these skills had equipped them better for the workplace.

2.5.3 Comparative importance of interpersonal skills

According to Awayiga *et al*. (2010), accounting students had a tendency to rate interpersonal skills as being of lesser importance, whereas accountants in the workforce, especially potential employers, gave this set of generic skills a higher rating. This may reflect the fact that interpersonal skills are not often covered adequately by accounting degree courses and accounting students may not use these skills at university or have a chance to practice them, as mentioned above. Similarly Lin *et al*. (2005) found that accounting students and the faculty providing the degree course rated interpersonal skills as the seventh most important skill set.

However, not all researchers have found that accounting students downplay the relative importance of interpersonal skills. Jones and Sin (2003) found that the accounting students they surveyed rated interpersonal skills as being the most important skills needed in order to get a job or to advance in their career. Sugahara, Suzuki, & Boland, (2010) also found that two groups of students (accounting students and those enrolled in other degree courses) rated interpersonal skills as being more important than other types of skill. Sugahara and Coman (2010) also found that accounting graduates perceived interpersonal skills as being more important specialised accounting skills and other technical accounting skills. In a similar vein,

De Lang *et al*. (2006) found that accounting graduates perceived that interpersonal skills were the most important skill needed to succeed in the workforce.

Bui and Porter (2010) found that employers rate interpersonal skills relatively highly and expect graduates to possess at least some level of interpersonal skills and that academics who provide the curriculum in accounting degree courses tended to perceive that these skills are more important for senior accountants and less so for accountants in entry-level accounting positions, which is the sort of position that is most likely to be open to recent accounting graduates. In a similar vein, Albrecht & Sack (2000) found that interpersonal skills were rated by both faculty staff and employees in the USA as being the most necessary of all the generic skills. Hancock *et al. (*2010) also found that employers rated interpersonal skills very highly, especially when selecting accounting graduates as new employees, and a high level of interpersonal skills was important for advancing from an entry-level accounting job.

The relative importance of interpersonal skills as rated by accountants in the workplace was also found by many other researchers (e.g. Borzi and Mills, 2001; Hassal *et al.*, 2005; Bunn *et al.*, 2005; Carr, Chua, & Perera, 2006; Kavanagh and Drennan, 2008; Wells, Gerbic, Kranenburg, & Bygrave, 2009). Holdsworth *et al.* (2009) also found that accounting employers are very likely to rate interpersonal skills as being more important that prior experience or qualifications when deciding to employ a new accountant. Kavanagh and Drennan (2008) found that employers required a good level of interpersonal skills alongside other skills relating to experience and general work ethics (which could be seen as a combination of technical and generic skills). Borzi and Mills (2001) found that interpersonal skills were ranked equally to technical accounting skills in comparative importance by employers. Bunn *et al.* (2005) found that interpersonal skills were very important in the context of meetings and were possibly perceived as being more important than the ability to make speeches (which is part of the communication skill set, another important generic skill).

However, these findings regarding the perception of the relative importance of interpersonal skills in the accounting workplace are not universal. Awayiga *et al.* (2010) found that employers frequently rate interpersonal skills as being less important and possibly even the least important skills for an accountant to have.

Again, culture plays a role in the perception of the relative importance of interpersonal skills, especially as they compare to technical skills. In a number of studies of universities in the USA and Australia compared with their Japanese equivalents, it has been found that teaching staff in Western universities placed more importance on interpersonal skills relative to a range of other generic skills than did the faculty in Japanese universities (Albrecht and Sack, 2000; De Lange *et al*., 2006;

Jackling and De Lange, 2009; Sugahara & Coman, 2010). De Lange *et al.* (2006) and Jackling & De Lange (2009) also found that Australian employers were also more likely than their Japanese equivalents to rate interpersonal skills as being more important. Sugahara and Coman (2010) found that Japanese accountants, like Japanese faculty staff, often tended to regard the interpersonal skill set as being less important than the technical accounting skills. Hassal *et al.* (2005) undertook a similar study on accountants in the workforce in the United Kingdom and Spain, where respondents were asked to rank the comparative importance of a range of generic and technical accounting skills. Respondents from both countries – which can both be classed as Western – ranked interpersonal skills as being very important.

2.6 Problem solving skills

2.6.1 Definition

Problem solving skills can be seen as a type of creative thinking skill. Specifically, problem solving skills can be seen as the generic skills that involve the ability to analyse and solve complex and unstructured problems in a range of settings, both familiar and unfamiliar, in a creative way (Montano et al., 2001). Problem solving skills also include the ability to use logic and abstract thinking to of choose among a range of alternatives when faced with a choice or decision (Montano *et al.*, 2001). This skill set may also include the ability to function and carry out tasks in ambiguous or unfamiliar situations and contexts, and to adapt to the rapid changes in the business environment of today (Jones and Davidson, 2007).

Many researchers agree that problem solving skills are vital for accountants to have and that problem solving skills are essential for accountants to succeed in the modern workplace (e.g. Bennett *et al*., 2000; De La Harpe, Radloff, & Wyber, 2000; Curtin, 2004; Kavanagh & Drennan, 2008). De Lang *et al*. (2006) specified that problem solving skills should be part of the generic skill set of professional accountants in the modern era. Ashbaugh and Johnstone (2000) argued that problem solving skills, along with other generic skills, were key to determining an accountant's employability and status within the workforce/company. Howieson (2003, p. 69), considering the demands made on the professional accountant in the workforce of today that 'although a command of technology will be an important component of an accountant's skill set, of more significance will be skills in innovative problem solving skills.' Hancock *et al.* (2010) found that problem solving skills were the generic skills mentioned most frequently in a number of accounting contexts (day to day work, training, hiring new accountants). These authors also stated that accountants with problem solving skills were often in high demand within the workplace and these accountants were more likely to advance within the workplace.

Hunton (2002) has made the interesting claim that this shift towards higher-order thinking skills such as problem solving skills has come about as a result of computers taking over many of the traditional tasks of an accountant, e.g. working with spreadsheets and making calculations.

2.6.2 Problem solving skills as part of the accounting degree course

Hodges & Burchell (2003) found that many accounting graduates lack problem-solving skills, especially as these apply in the workplace, even though graduates are "supposed" to have a high level of problem solving skills when they enter the workforce. Husain *et al.* (2010) also discovered a gap between the perceptions of accounting students and employees regarding the importance of problem solving skills, and argued that graduates need to improve their level problem solving skills as part of their studies in their degree course at university. This gap regarding the perceived importance of problem solving skills was also highlighted by Warraich & Ameen, (2011), who also called for these skills to be incorporated into the curriculum as part of an accounting degree course. Similar calls have been made by Wang & Hamali, (2006), who also found that recent graduates lacked the problem solving skills needed for the work place and expected by employers. Frequently, problem solving skills are mentioned as those that need the most attention because of the lack of these skills in accounting students (Paisey & Paisey, 2010). Similar results have been found by other researchers (Tempone and Martin, 2003; Tan *et al.*, 2004; Arquero Montano *et al.*, 2004; Hassall *et al*., 2005;), who have highlighted a gap between the problem solving skills of accounting students when they graduate and the expectations of employers regarding these skills. Tempone and Martin (2003) found that accounting students had a very low level of problem solving skills, citing an example where students considered a problem only in the context of an assignment and could not see its real-world application.

According to some researchers, accountants in the workplace have been critical or negative about how accounting students lack generic skills when they enter the workplace, and problem solving skills are often mentioned as particularly lacking in recent graduates (Borzi & Mills, 2001; Packer, 2001; Mohamed & Lashine, 2003). This has triggered calls for problem solving skills to be incorporated into degree courses for accounting students.

On the other hand, Paisey and Paisey (2010) found that the accounting students themselves felt that the skills that they had developed to the greatest degree were problem solving skills, especially as this applied to interpreting financial information. Crebert (2000) also found that problem solving skills were among the types of generic skills that were most likely to be addressed by the undergraduate curriculum, as these skills were considered to be "vocationally oriented" and thus important in order for students to get a job. Crebert (2000) also found that problem solving skills

were among the generic skills that accounting students were very likely to score well in. Jackling & Keneley (2009) also asked accounting students to rank a list of generic skills according to whether the skills had been addressed by their degree course, and found that problem solving skills were rated very highly.

McVay, Murphy, & Yoon, (2008) have documented the increasing demand for problem solving skills to be included in degree courses alongside the technical accounting skills. Furthermore, Tan *et al.* (2004) found that academics involved in accounting degree courses, like accountants in the workplace, considered that problem solving skills were essential for the workplace and supported calls for the curriculum to place an emphasis on these skills. Similar calls to include problem solving skills within the degree course have been made by Milner and Hill (2008a).

However, problem solving skills can be and are part of the degree courses taken by accounting students. Arquero Montano *et al.*, (2004) found that accounting students attending a university in Spain improved their problem solving skills by taking classes that used the case method as part of the curriculum. Similar results were found by Sawyer *et al*. (2000), who found that accounting students at a New Zealand university perceived problem solving skills to be appropriately emphasised within their degree course. Similarly, in Canada, accounting students who improved their problem solving skills did better in their final exams and those with a high level of problem solving skills were more likely to pass their examinations (Fortin and Legault, 2010).

The way that courses are taught can affect how well accounting students learn problem skills and gain the ability to apply them. Fortin and Legault (2010) found that overall, degree courses that used a mixed teaching approach were best for teaching accounting students problem solving skills. Holdsworth *et al.* (2009) have remarked that the MBA program offered at the prestigious Harvard University in the United States uses case study analysis to help accounting students gain problem solving skills, and have done so with such success that this method is considered to be the measure of best practice for developing degree courses for accounting students. This accords with the findings of Tempone and Martin (2003), who found that students who were asked to solve a problem in a real-world situation or scenario, or when a problem was presented in the context of how it would appear in the workplace, they were able to recognise similar problems and be able to solve them, indicating that they had indeed learned problem solving skills as part of their degree course. In the same vein, Sawyer *et al*. (2000) found that accounting students, especially those specialising in taxation, benefited greatly from case studies that would be faced by a professional tax adviser, and that these case studies helped them develop their problem solving skills.

Ballantine & Larres (2007a) found that group assessment could help accounting students improve their problem solving skills and was necessary for preparing the students for the workplace. Crombie and Lord (2009), however, found that tutorials enabled accounting students to learn a range of generic skills, especially problem solving skills.

2.6.3 Comparative importance of problem solving skills

Kavanagh and Drennan (2008) found that accounting students ranked problem solving skills as the fourth most important of the generic skills, ranking this skill set above teamwork skills, critical thinking, computer literacy and communication skills. These authors also found that employers list problem solving skills as being among the top three skills that they consider important in a recent graduate seeking employment as an accountant. However, in the same study, the authors found that accounting students did not rank problem solving skills among the top three generic skills needed in order to get a job. However, when they compared the perceptions of accounting students and accountants in the workplace, these authors found that both groups agreed that problem solving was perceived as being a very important skill.

Tan *et al.* (2004) found that academics/faculty staff of accounting degree courses perceived problem solving skills to be more important than the other generic skills. Bennett *et al.* (2000) found that employers tend to look more favourably on graduates applying for an accounting job who have problem solving skills than they do on those who do not, thus indicating the value put on this skill set by accountants in the workplace. According to Bennett *et al.*, accountants who have problem solving skills are considered to have the ability to improve the overall performance of the organisation or company. Warraich & Ameen, (2011) found that accountants in the workplace, both at the senior level and in entry level positions, perceived problem solving skills to be very important in the workplace and in order to gain employment as an accountant. On the whole, employers in the field of accounting tend to agree that problem solving skills are very important in the workplace (Billinga, 2003; Hodges & Burchell, 2003; Milter, Perotti & Segers, 2004).

Callan (2003) found that both accounting students and teachers tended to rate problem solving skills as being highly important within a range of generic skills, and both groups of respondents considered problem solving skills to be important as part of the accounting degree course as well as being very important in order to get a job. Carr *et al.* (2006) also found that accounting students at one university in New Zealand considered that problem solving skills were the most important generic skills and that these skills ranked equally in importance with technical accounting skills, especially when the skills needed to get a job were considered. In a similar vein, Kavanagh and Drennan (2008) found that although accounting students seemed to consider that all of the generic skills covered in a survey were important to some

degree when applying for a job, but problem solving skills were ranked as the fourth most important generic skills. The accounting students interviewed by Gabric and McFadden (2001) ranked problem-solving skills as being one of the three most important generic business skills, with the employers interviewed by these authors giving similar answers. De Lange *et al.* (2006) found that accounting graduates who were asked to list the three most important generic skills they had which they perceived would help them get a job were very likely to list problem solving skills among their top three most important generic skills.)

According to Jackling and Delange (2009), problem solving skills were ranked second in importance for progression up the corporate ladder, which was higher than the ranking given to technical accounting skills, which were ranked as fifth most important. Tan *et al*. (2004) also found that accountants in the workplace found problem solving skills to be very important in the workplace. Gabric and McFadden (2001) found that employers would frequently consider that problem solving skills were more important than technical skills when deciding whether or not to hire a new accountant, although technical accounting skills were still considered to be important. Occasionally, a difference can be seen between the perceptions of accounting students and accountants in the workplace. Husain *et al*. (2010) found that accounting students put a lower level of importance on problem solving skills compared to accountants in the workplace, and this could possibly be problematic when these accounting students graduate and seek employment.

Some research has done into cross-cultural perceptions of the importance of problem solving skills within the accounting workplace. Hassall *et al*. (2005) compared professional accountants at the management level and employers in the UK and in Spain and found that problem solving skills were considered by accountants in Spanish companies to be important generic skills, but not the most important, with problem solving skills ranking anywhere between fourth most important and 13th most important. Sugahara and Coman (2010) found that problem-solving skills were ranked as ninth to fifteenth most important by British accountants, indicating that this culture puts a lower importance on problem solving skills in the workplace.

2.7 Analytical skills

2.7.1 Definition

Analytical skills are closely related to problem solving skills. According to Jones and Sin (2003) analytical skills accounting cover the ability to recognise that certain events (e.g. financial transactions) will have consequences for somewhere and some part of the accounting process, and the ability to classify "these events in terms of the accounting equation that underlies all financial record-keeping and reporting" (p.25). Mohamed and Lashine (2003) equate analytical skills with intellectual skills and

define these generic skills as the ability to make the right enquiries in order to analyse the data confronting an accountant. According to the Quality Assurance Agency for Higher Education (2000), analytical skills are not specifically accounting skills (thus defining them as generic skills) and that analytical skills give an accountant the ability to analyse and draw conclusions from structured problems (Milner and Hill, 2008a). Jones (2010) has stated that within the context of accounting, analytical skills aid in flexibility and in understanding business in both local and global contexts. Additionally, Mcvay *et al.* (2008) have defined analytical skills as incorporating the ability to recognise market needs and thus the ability to develop new markets. Additional definitions of analytical skills include the ability to imagine (and solve) complex problems and to make decisions using whatever information is available.

Many researchers have stressed the importance of analytical skills in the accounting workplace. Howieson (2003) has reinforced this idea about the importance of analytical skills in the modern accounting workplace by stating that 'although a command of technology will be an important component of an accountant's skill set, of more significance will be skills in analysis skills.' Furthermore, Lin (2008) states that analytical skills, along with information processing skills, are vital in the modern business world and its rapid changes. Similarly, Sugahara *et al.* (2010) have emphasised that analytical skills, along with other generic skills, are essential for the accountant in today's rapidly changing economic environment. Hancock *et al.* (2010) believe that analytical skills are equal in importance to technical accounting skills for an accountant to be successful in the workplace.

Hunton (2002) suggests that the need for accountants to have a higher level of analytical skills is a result of increased technology (e.g. computerised spreadsheets) taking over many of the more mundane or repetitive tasks that accountants had to do in the past.

2.7.2 Analytical skills as part of the accounting degree course

Mohamed and Lashine (2003) state that analytical skills are basic generic skills for all accountants and that therefore accounting graduates should have the ability to analyse business problems using logic. These authors also claimed that analytical skills, particularly analysis of financial information, are able to be delivered via the degree course. Because of the mixed results regarding the performance of accounting graduates in the area of analytical skills, these authors have called for an increase emphasis on analytical skills within accounting degree courses. Similar calls have been made by (Sin, Jones, & Petocz, 2007), who suggested that analytical skills as they apply to accounting should be presented in the first year of an accounting degree. Sugahara *et al.* (2010) found that accounting students who believed themselves to have a high level of technical skill also considered themselves to have a high level of analytical skills, and rated their level of analytical skill higher than students studying

some other subject. These authors therefore suggest that studying accounting in itself would help all students improve their analytical skills. Needless to say, this suggests that accounting degree courses do indeed teach analytical skills adequately. Tempone and Martin (2003) found that accounting students had a high level of analytical skills and were able to apply the concepts presented in assignments to other situations in the business world; this is an indication of higher order thinking skills, of which analytical skills are a part. In a similar vein, Crebert (2000July) found that generic skills like analytical skills which were perceived as being more "vocationally oriented" tended to be covered quite well in undergraduate courses and to receive a lot of attention.

Karim, Embi, Din, & Shah, (2010) confirmed these findings somewhat by their finding that those who teach accounting believed that the degree course offered accounting students the chance to learn, practice and apply analytical skills, especially if they tackle the information presented to them in a progressive way, e.g. analysing the source of their information.

Several researchers have, however, concluded that the majority of accounting students perform poorly and show a low level of analytical skills (Borzi & Mills, 2001; Packer, 2001; Mohamed & Lashine, 2003). This lack has led to a call for changes within accounting degree courses so that analytical skills can be addressed and covered better. It is possible that the approach used within the degree course leads to the poor performance of accounting students regarding analytical skills (Biggs, 2003; Ramsden, 2003; Palm & Bisman, 2010). Similarly, Theuri and Gunn (1998) found that employers often stated that accounting graduates in entry-level positions had a poor level of analytical skills or were completely lacking in these skills.

This call for the degree courses of accounting students to be reviewed and changed to that accounting students gain a better level of analytical skills is cross-cultural. Mojtahedzadeh *et al.* (2010) studied the requirements of the accounting profession in Iran and found that graduates in accounting needed to have an adequate level of analytical skills in order to get a job.

De Lang *et al.* (2006) have stated that accounting students must receive training in analytical skills in view of the changing face of accounting and economics. Accounting in the modern era, according to these researchers, requires more generic skills and especially analytical skills, and accountants must be trained in these skills, especially as they apply to the particular field within accounting that a student is studying. Elliott and Jacobson (2002) suggest that training in these skills should be complementary to a “regular” accounting degree course or papers that cover the technical accounting skills, but are still necessary.

Hager & Holland, (2006) have found that this lack of analytical skills in accounting graduates has affected businesses negatively, as accountants who lack these skills perform poorly because they are unable to solve complicated problems or make the right decisions.

The method by which the accounting degree course material is presented may have some effect on the level of analytical skills that accounting students will have when they graduate. Adler, Whiting, & Wynn-Williams, (2004) found that using business case studies as part of the teaching material allowed accounting students to develops at least a basic level of accounting skills, and to improve the skills they already had in this area.

Kermis and Kermis (2010) have found that in some cases, businesses rather than universities or other tertiary training institutions are providing the necessary training in analytical skills to recent graduates who have entered the workforce, as analytical skills are vital for even entry-level accounting positions. However, Hager & Holland (2006) state that this extra training of graduate employees is costly to the organisation, thus reducing profit and efficiency.

One group of researchers investigated gender differences in how analytical skills are perceived by accounting students. This study found that male accounting students were more likely to be satisfied with their level of analytical skills compared to female accounting students (Mojtahedzadeh *et al*., 2010).

2.7.3 Comparative importance of analytical skills

Many studies have found that analytical skills are rated as being very important within the generic skills (Hancock *et al*., 2010).

Awayiga *et al.* (2010) found that accounting graduates rated analytical skills as being the most important professional skill for accountants. Kavanagh and Drennan (2008) also found that accounting students considered analytical skills to be very important for their future careers and possibly the most important of the generic skills. When these authors (Kavanagh and Drennan (2008) asked students to "nominate or summarise the three most important qualities that they should possess for a successful career," analytical skills were very frequently rated as being the most important generic skills to have. De Lange *et al.* (2006) conducted a similar study and found that analytical skills were frequently considered by graduates as being one of the most important skill sets to have in order to get a job or that helped them meet the requirements of their current accounting job. Holdsworth *et al*. (2009) confirmed these findings further by finding that analytical skills were commonly named as important generic skills by undergraduate students enrolled in the Bachelor of Commerce degree at the University of Melbourne. Yet again, Callan (2003) found

that accounting students and their teachers perceived analytical skills to be important both in the workplace and as part of the degree course.

Kavanagh and Drennan (2008) found that employers expected accounting graduates to have analytical skills, with this set of generic skills being one of the top three skills employers expect recent graduates to have. These authors also found that the responses of accounting students tended to agree somewhat with the responses of employers and that both groups considered analytical skills to be very important for an accountant's success in the workplace. Furthermore, Kavanagh and Drennan (2008) found that employers seemed to consider strong analytical skills as being equal in importance to technical accounting skills, along with "business awareness" and experience of the "real world" outside the university classroom. Awayiga *et al*. (2010) also found that employers considered analytical skills to be the most important generic skills.

Albrecht and Sack (2000) found that teaching staff in the discipline of accounting considered analytical skills to be the most important of 22 generic skills, while accountants in the workplace ranked these skills as being the second most important skills, suggesting that these skills are perceived to be of similar importance by both groups. According to these authors, analytical skills were considered as some of the fundamental skills to be learned as part of an accounting degree course. Similarly, Crebert (2000July) found that academic staff and graduates both rated analytical skills very highly regarding the importance of these skills compared to a range of other generic skills.

Sugahara *et al.* (2010), however, interviewed three faculty groups and how they ranked analytical skills relative to a range of other generic skills and found that this group tended to rank analytical skills below the other generic skills.

Another contrasting finding comes from the work of Husain *et al.* (2010), who found an extensive mismatch between how employers and accounting undergraduates perceived the relative importance of analytical skills, both in the university and within the workplace, similar to that found for problem-solving skills.

2.8 Teamwork skills

2.8.1 Definition

Teamwork skills are defines at the ability to work in groups with other people. According to Montano *et al.* (2001), teamwork skills include the ability to interact with other people, the ability to motivate others in the team, the ability to resolve conflict within the team, the ability to delegate tasks to others and the ability (and willingness) to take leadership of a group where necessary. Teamwork skills may also

involve setting group goals, organising one's self and the others on the team, and carrying out the work assigned to the team. While on the surface, it appears that teamwork skills are needed by only one member of the team, this is not the case, as each individual, whether they are an accountant or are in some other role, needs to take responsibility for the outcome of the team and must work towards the ultimate goal (Avery, 2001; Kennedy and Dull, 2008). This view of teamwork skills could be summarised by the famous motto of the fictional Three Musketeers: "All for one and one for all."

Such interactions that involve teamwork skills being used at a high level are sometimes described as "synergistic" (Whittington-Jones, 2005), meaning that the productivity of a group working as a team is more than the combined productivity of the team members working individually.

A number of researchers seem to consider that the increased need for teamwork skills has arisen from the recent changes in the business world that have changed the nature of the accountants' role and work, e.g. computers and globalised operations. Teamwork is needed to help move the accounting profession as a whole into the modern age (Hastings, Philip, & Lannie, 2002; Sugahara *et al.*, 2010). Albrecht, 2002; argued that, if accountants are to find a value added role in today's dynamic business environment, they must be armed with new skills). This has led to accountants needing to have the skills needed for more complex situations, especially generic skills such as teamwork skills. According to some authors, these skills may be more important than technical accounting skills for new accounting graduates entering the workforce (Albrecht & Sack, 2000; Borzi & Mills, 2001; Burnett, 2003).

2.8.2 Teamwork skills as part of the accounting degree course

Crebert (2000) found that teamwork skills were, in general, assigned a medium to high priority, but very few accounting degree courses actually taught teamwork skills explicitly, even though these courses often included teamwork skills as part of the assessment. This author also found that teamwork skills were often lacking in accounting students and accounting graduates, and were sometimes the weakest area for many.

Howieson (2003) has documented that teamwork skills and other generic skills can be and sometimes are taught as part of the accounting degree course in order to prepare accounting students for the modern business world. This has been confirmed by Kermis and Kermis (2010), who state that it is important that teamwork skills are taught to accounting students to help them adjust to the workplace and their future careers.

According to several researchers, accountants already established in the workforce often feel as though accounting graduates do not possess the necessary teamwork skills when they enter the workforce. This has led to numerous calls for the accounting curriculum to be changed to include more opportunities to teach and practice teamwork skills (Packer, 2001; Borzi & Mills, 2001; Mohamed & Lashine, 2003; Wells *et al.*, 2009). Mojtahedzadeh *et al.* (2010) claim that these skills must be included in degree courses so that professional accountants have a better overall level of teamwork skills and other generic skills, which is necessary in the modern era of accounting.

However, Jackling & Keneley (2009) found that undergraduate accounting students considered that teamwork skills had been covered adequately by their degree course, suggesting that some progress has been made in this area. This is confirmed by the findings of Holdsworth *et al.* (2009), who found that in the University of Melbourne, Australia, the Bachelor of Commerce degree specifically includes teamwork skills in its list of important generic skills for undergraduate accounting students to acquire.

Palm and Bisman (2010) found that although accounting degree courses can include a number of assignments that provide accounting students with the opportunity to learn and practice – and improve – their teamwork skills via group based assignments, small group activities, group presentations and peer learning activities, but these opportunities were not presented to accounting students very often. Similarly, Hwang, Lui, & Tong, (2005) found that cooperative learning (e.g. group assignments) was good for building a range of generic skills, including teamwork skills, and that this improved the overall performance of accounting students. Tempone and Martin (2003) have also commented that opportunities to practice and learn teamwork skills are easy to include within the curriculum of an accounting degree course. Both Farrell and Farrell (2008) and Mohidin, Jaidi, Sang, & Osman, (2009) have found that including teamwork within university subjects such as teamwork helps accounting students and other students prepare for the workplace and that group work was an especially good place to develop teamwork skills, including leaderships skills (an important subset of teamwork skills). The use of group work to engender teamwork skills rather than individual assignments was confirmed by Ballantine and Larres (2007b).

Another strategy was found by Adler and Milne (1997a), who found that students who had to facilitate a seminar as a group as part of their degree course were able to improve their teamwork skills.

Unlike other generic skills, case studies presented by lecturers within the university classroom do not inherently aid in developing teamwork skills in accounting students. However, business case studies may be used to show accounting students how

teamwork skills can be applied (Adler *et al.*, 2004). However, Willcoxson, Wynder, & Laing, (2010) have noted that teamwork skills were not explicitly taught even when exercises such as group work were used as part of an accounting degree course.

On the other hand, Holdsworth *et al.* (2009) found that the MBA programme at Harvard University managed to help accounting students gain teamwork skills by using case studies. However, these case studies were approached as team or group projects, and emphasis was put on participation in these groups and understanding team dynamics – essential aspects of teamwork skills.

Encouragingly, Wells *et al.* (2009) have found that universities on the whole have paid attention to these recommendations and have altered the curriculum of the accounting degree so teamwork skills and other generic skills can be learned. However, these authors also stated that more opportunities for teamwork skills need to be included in accounting degree courses, along with the increased use of case studies and real-world examples. Furthermore, Paisey and Paisey (2010) found that students perceived that they had manage to develop teamwork skills from group work, and, according to this study, over half of these students' supervisors felt that they had developed strong teamwork skills. Similar encouraging findings have been uncovered by Hassall, Lewis, & Broadbent, (1998), who found that undergraduate students in the UK managed to improve their ability to work in groups (teamwork skills) as part of their degree course.

On the other hand, accounting students may be their own worst enemies when it comes to acquiring teamwork skills and may often get frustrated working in a team for an assignment, especially if they perceive that the other members of the team do not have as many technical accounting skills or if the workload is not shared around evenly (Holdsworth et al., 2009). This is particularly the case with very motivated and competitive accounting students (Holdsworth *et al.*, 2009).

Ballantine and Larres (2007b) have suggested that at this stage, there are still issues involved in how best to teach teamwork skills to accounting students. Group work certainly has an important role to play in this regard but tutors need to be instructed how to assess teamwork skills and instruct students in how to use them, and issues such as group formation and group management.
Cross-cultural studies such as that of Xiao and Dyson (1999) have found that group work and other teaching methods that can give accounting students the opportunity to practice teamwork skills are not often used at training institutions in China.

On the whole, the findings relating to how well teamwork skills are incorporated into accounting degree courses are mixed. For example, looking at New Zealand, Adler and Milne (1997b) found that degree courses overemphasised technical accounting

skills and ignored teamwork skills (and other generic skills), whereas Sawyer *et al.*, (2000) found that accounting students in New Zealand felt that too much emphasis was placed on teamwork skills.

2.8.3 Comparative importance of teamwork skills

On the whole, accountants in general agree that teamwork skills are important generic skills in the modern accounting workplace. For example, Kavanagh and Drennan (2008) found that both accounting students and employers seeking to hire accountants both considered teamwork skills to be important in the workplace. Several researchers have commented that teamwork skills, along with other generic skills are more important than technical skills, especially for accounting graduates seeking to enter the workforce (Albrecht & Sack, 2000; Borzi & Mills, 2001; Burnett, 2003; Holdsworth *et al.*, 2009). At least one study (Pita and Pierce, 2010) has found that teamwork skills have been rated as being the most important for graduates to have when applying for an entry-level job.

Accounting students often rated teamwork skills as being very important compared to the other generic skills. Kavanagh and Drennan (2008) asked a group of students to name the "three most important qualities that they should possess for a successful career," and found that ability in teamwork skills were frequently mentioned as one of these three most important qualities, and this skill set was ranked among the top three most important overall. In a subsequent study, Hancock *et al.* (2010) found that teamwork skills were rated as being very important, if not the most important, of the generic (non-technical) accounting skills.

Considering accountants in the workplace, Pita and Pierce (2010) found that in their study, teamwork skills were considered to be the most important generic skills to have in the workplace. Jackling and Delange (2009) also found that teamwork skills were rated very highly and were very much in need within the accounting workforce, and these skills were rated as being very important by employers. The study by Jackling and Delange (2009) also found that teamwork skills were ranked as being extremely important by employers, but the relative importance of these generic skills was downplayed by accounting graduates, who considered teamwork skills to be less important. These authors suggest that employers realise the value of having employees that work together well as a team, as this aids productivity and boosts workplace morale, things that are not as important in the life of an accounting student within the walls of the university.

Crombie and Lord (2009) also found that accountants in the workplace considered teamwork skills to be very important for advancing in their careers, and rated these skills, among other generic skills, as being more important than did accounting graduates who had not yet entered the workplace. Montano *et al.* (2001) also found

that employers considered that teamwork skills should be prioritised, especially for accountants at management level. Hancock *et al.* (2010) also found that teamwork skills were considered as being some of the most important generic skills for an accountant to possess if he/she sought promotion or advancement up the career ladder.

2.9 Presentation skills

2.9.1 Definition

Presentation skills are generic skills that are closely allied to both communication skills and to teamwork skills. Hodges & Burchell, (2003) mention that these skills are needed by accountants when they present reports or similar to groups and present their opinions within the organisation. Often presentation skills include oral presentation (public speaking). Webb *et al.* (2009) argue that presentation skills require a measure of self-confidence, especially in situations where a presentation must be made to the senior executives of a global company. It is thought that presentation skills, especially oral presentation skills, reinforce other generic skills, such as analytical skills (Maes, Weldy, & Icenogle, 1997). Milner and Hill (2008b) include presentation skills in their list of generic skills that are vital for accountants.

Pita and Pierce (2010) consider presentation skills to be an aspect of networking skills, thus indicating that presentation skills, especially oral presentation skills, have some overlap with interpersonal skills as well.

Some aspects of presentation skills can be quite specialised. These aspects can include knowledge of how to use specialised presentation software such as PowerPoint, and self-presentation (which could include factors such as grooming and clothing as well as more subtle aspects of communication such as the use of body language and gesture while speaking in public).

2.9.2 Presentation skills as part of the accounting degree course

Hodges & Burchell, (2003) have found that accounting students who graduate with a good level of presentation skills perform better in the workplace compared to other accounting graduates who did not have a good level of these skills.

Warraich & Ameen, (2011) found that a large number of employers were dissatisfied with the level of presentation skills attained by accounting graduates entering the workplace and these employers considered the curriculum in accounting degree courses at university should provide opportunities for accounting students to develop presentation skills, as these were considered extremely useful in the modern accounting workplace.

Gilbert *et al*. (2004) surveyed a number of accounting students about what generic skills they expected to develop as part of their degree course and found that over 60% of students expected to improve their presentation skills as part of their degree course, and 40% of these accounting students believed that they had already gained some level of skill in this area, thanks to their studies.

According to several researchers, (e.g. Bonk and Smith, 1998; Keddie and Trotter, 1998; Crombie and Lord, 2009), case studies can be used to good effect for teaching accounting students presentation skills, especially if class presentations are made by the students. Boyce *et al.* (2001) agree with the importance of class presentations in increasing the presentation skills of accounting students, and has the side-effect of improving other generic skills, especially communication skills, in the students who have to listen to their peers' presentations, especially if question and answer sessions are included as part of the presentation. However, many accounting students find oral presentations difficult and feel awkward doing so, indicating that they do not have a basic initial level of presentation skills, and that these skill will need to be developed throughout their accounting degree course. This finding, especially about the use of question and answer sessions at the end of formal presentations by an accounting student, has been confirmed by Kermis and Kermis (2010). Kerby and Romine (2010) have added that the outcome of such student presentations is greatly enhanced if feedback is given by the instructor and if the expectations regarding what a presentation should include and what a high level of presentation skills "looks like". In the same study, these authors found that nearly all (92%) of the accounting students thought that making presentations, followed by self-assessment of these presentations (using recordings) would help them improve their presentation skills. Weil *et al*. (2004) found that role play can also be used alongside presentations to improve accounting students' presentation skills, and the resulting improvement in skills was significant. Wells *et al*. (2009) have also supported calls for more presentations to be included in the assignments given to accounting students as part of their degree course.

Presentations as part of the accounting degree course can also help develop teamwork skills as well as presentation skills, especially when group presentations are involved. Ideally, individual accounting students should have at least two opportunities to improve their presentation skills, although this can create some logistical issues when larger groups (e.g. four or more) are involved (Young and Aoun, 2008).

Willcoxson *et al*. (2010) have commented that presentation skills must be explicitly included in assessment and assignments, and found that the courses they investigated as part of their study often did not have the development of presentation skills as an objective.

According to Fortin and Legault (2010), students who had some experience in the accounting workplace had better presentation skills, which suggests that requiring workplace experience as part of the degree course (e.g. in the vacations) would help to improve the presentation skills of all accounting students.

Cross-culturally, Xiao and Dyson (1999) have found that student presentations are seldom used as part of accounting degree courses in China, although essay writing and case studies are being used more frequently. It could be argued that these latter two methods do not strictly fall into the domain of presentation skills but instead are more related to communication skills and analytical skill respectively.

2.9.3 Comparative importance of presentation skills

Hodges & Burchell, (2003) found that the majority of employers require new employees to have a reasonable level of presentation skills when recruiting employees, which indicates that these generic skills appear to be considered to be very important by accountants in the workplace.

In some universities, presentation skills are considered to be vital parts of the accounting degree and a subset of technical skills; other departments consider presentation skills to be generic skills. All faculty staff surveyed agreed that presentation skills were important, especially as part of the accounting degree course (Bennett *et al*., 2000). According to Kerby and Romine (2010), some members of the accounting faculty staff find it very time-consuming to include opportunities to teach and practice presentation skill, especially oral presentation skills, but doing so is an important part of the degree course because of the overall importance of presentation skills for accountants.

In their study of which generic skills accounting students consider to be important in the workplace, Kavanagh and Drennan (2008) found that presentation skills were considered to be important generic skills. It is possible that the students considered presentation skills to be important not just in the workplace but in the university context and for life in general.

Tindale, Evans, Cable, & Mead, (2005 December) have found that Australian accountants in the workplace who are part of the Certified Practising Accountants and/or the Institute of Chartered Accountants Australia considered presentation skills to be relatively important, approximately equal in importance to technical accounting skills. Stowers and White (1999) also found that professional accountants considered oral presentations skills to be very important generic skills. Additionally, Fortin and Legault (2010) found that presentation skills were often listed by professional accountants as being important generic skills that were used in a wide range of accounting contexts, including day-to-day work and recruitment to a job.

However, some aspects of presentation skills were ranked as being very low in importance. For example, the ability to use presentation software (e.g. PowerPoint) was ranked as being of least importance by accounting faculty staff and accountants in the workplace in a study by Thenri and Gunn (1998). Awayiga *et al* (2010) also found that the ability to use presentation software was rated by employers as being some of the least important, if not the absolutely least important skill needed by accountants.

2.10 Technical accounting skills

2.10.1 Definition

Kavanagh *et al.* (2009) listed a range of skills that make up the set of technical accounting skills. Naturally, basic practical accounting skills (e.g. knowing how to depreciate assets) were listed first in this set, followed by information technology skills (e.g. use of email and the internet) and accounting software skills (computer literacy) and industry-specific skills and awareness (in the Saudi Arabian context, this would include a knowledge of which transactions are or are not considered to be *riba* or usury and thus proscribed by Sharia law). Kavanagh *et al.* also stated that it was important for accountants to know how to apply and work with taxes, debits and credits; auditing; understanding and creating financial reports; and preparing financial statements.

Several researchers (Agyemang & Unerman, 1998; Collier & Wilson, 1994) have pointed out that technical accounting skills are more or less taken for granted in those graduating from university with accounting degrees.

De Lange *et al.* (2006) have stated that even though many of the technical accounting skills can be handled by computers, it is still important for all accountants entering the workforce have a level of these skills. Albrecht (2002) also believed technical accounting skills as being essential in the modern accounting era, as do Hancock *et al.* (2010).

De Lange *et al.* (2006) and Watty *et al*. (1998) also recognise the primary importance of technical accounting skills, but also state that these are common to all accountants even at entry level and the skills that determine whether or not (and how high) an accountant will rise up the career ladder are the generic skills. These findings have been confirmed by other researchers (Henderson, 2001; Elliot and Jacobson, 2002; Howieson, 2003). This is especially the case in the modern business world, where the roles, tasks and responsibilities of accountants in the workplace are changing rapidly The need for a broader set of skills beyond technical accounting competencies accountants can cope more efficiently in a challenging business environment; and it will increase accountants' competencies levels required by the global market

(Mohamed & Lashine, 2003; Kavanagh & Drennan, 2008; Jackling & De Lange, 2009; Jackling & Watty 2010).

2.10.2 Technical accounting skills as part of the accounting degree course

Clearly, accounting students who want to be successful accountants after they graduate, especially in the rapidly changing world of modern business, need to have technical accounting skills as well as a large number of generic skills (Gammie *et al*., 2002; Mohamed and Lashine, 2003). De Lange *et al.* (2006) found that in Australian universities, technical skills were some of the basic skills required by accounting degree courses in Australian universities.

University accounting degree courses may even place too much emphasis on technical accounting skills at the expense of generic skills (Boyce, Williams, Kelly, & Yee, 2001; Henderson, 2001). The passive learning methods used in traditional universities (e.g. lectures and exams) are suitable for teaching technical accounting skills, which is another factor why these skills are over-emphasised within the degree course (Boyce *et al*., 2001; Saunders and Christopher, 2003; Lucas and Mladenovic, 2004; Lucas, & Mladenovic, 2004). Jackling and Delange (2009) have also suggested that the majority of accounting degree courses place too much emphasis on specialised technical accounting skills at the expense of generic skills. In the Spanish context, Hassall *et al.* (2005) found that the employers they surveyed in their research did not think that educational institutions paid enough attention to generic skills as part of the degree course, in spite of the greater importance of generic skills compared to technical accounting skills in the workplace and when deciding whether or not to hire a new accountant.

Lin *et al*. (2005) have pointed out that in the Chinese context at least, the heavy emphasis placed on technical accounting skills within accounting degree courses is important to help students gain their professional accountancy qualifications. Given the relative unimportance of certain generic skills in the Chinese context mentioned in earlier sections, this heavy emphasis or even over-emphasis may be warranted.

On the other hand, Hutchinson and Fleischman (2003) believe that the majority of accounting degree courses provide accounting students with opportunities to develop generic skills as well as acquiring technical accounting skills.

According to De Lange *et al.* (2006), even in the modern world where computers have automated many of the tasks traditionally carried out by an accountant, it is still important for accounting degree courses to focus on technical accounting skills and general principles of accounting. Intriguingly, Jackling and Delange (2009) have found that some accounting graduates are, nevertheless, deficient in technical accounting skills when they leave university and enter the workforce.

Parvaiz (2011) found some conflicting opinions in key stakeholder groups about which institutions should be responsible for teaching generic skills to accounting students and who should concentrate on the technical accounting skills alone. Over half the respondents in this study believed that teaching technical accounting skills should be the responsibility of the university, but one third considered that universities should also be responsible for teaching generic non-technical skills.

2.10.3 Comparative importance of technical accounting skills

Pita and Pierce (2010) found that most of those surveyed as part of their study believed that technical skills and generic skills were equally important, especially as regards career progression.

Carr *et al*. (2006) found that accounting students at one New Zealand university believed that technical accounting skills were the most important skills for a graduate entering the workplace to have, and technical accounting skills were perceived by this group as being more important than generic skills. De Lange *et al.* (2006) also found that the majority of accounting graduates believed that technical accounting skills are still very important in the workplace. Gammie *et al.* (2002), Hutchinson and Fleischman (2003), and Mohamed and Lashine (2003), all of whom researched this issue in the USA, found that technical accounting skills were considered to be more important than generic skills. However, Webb, De Lange, & O'Connell, (2009) found that accounting graduates rated technical accounting skills as being the least important skills. Sugahara and Coman (2010) also found that accounting graduates perceived generic skills to be more important than technical accounting skills.

Kavanagh and Drennan (2008) have found that although employers demand that new recruits have technical accounting skills, they demand more than these skills, indicating that generic skills are considered as being equally important to the technical accounting skills.

Jackling and Delange (2009) found that although employers required a basic level of technical accounting skills, many specific technical accounting skills are taught on the job, especially how to use the computer software used by a particular organisation. These authors also found that three-quarters of the employers surveyed (9 out of 12) believed that technical accounting skills were very important for accounting graduates entering the workplace to have. The authors go so far to state that employers take it for granted that accounting graduates who apply for jobs at their company will possess at least a minimal level of technical accounting skills and tend to look at their generic skill levels when deciding whether or not to hire an individual. This key study stated clearly that generic skills were the deciding factor for employers considering a recent graduate for a position as an accountant, with 11 out of 12 employers having this opinion.

Hancock *et al.* (2010) found that while employers in general tended to put a comparatively lower level of importance on technical skills and did not appear to have very high expectation, this did vary depending on the size of the company. Similarly Gabric and McFadden (2001) found that employers tended to consider generic skills as being more important than technical s accounting kills, but technical accounting skills were still somewhat important and some level of technical accounting skills was needed in the workplace.

Usoff and Feldmann (1998) have found that undergraduate accounting students consider technical accounting skills to be more important for an accountant to have, and tend to perceive that technical skills will be the ones considered important by future employers as well as their accounting teachers. However, this study also found that accounting undergraduates did acknowledge the importance of the generic skills.

At least two studies (Barrie, 2006; Milner and Hill, 2008a) have found that teaching staff who deliver accounting degree courses place a higher level of importance on technical accounting skills and consider these to be more important, at least from a teaching perspective and possibly from the perspective of potential employment of accounting graduates, than the generic skills.

Boyce *et al.* (2001) looked at accountants in the workplace and found that these respondents considered generic skills to be more important than technical accounting skills, as the generic skills could be transferred from job to job, making an accountant more flexible regarding his/her job choices. Gammie *et al.* (2002), Hutchinson and Fleischman (2003), and Mohamed and Lashine (2003) also found that technical accounting skills were not as important as generic skills for advancing up the career ladder.

Cross-culturally, technical accounting skills are perceived as being less important for accountants at management level to have in both Spain and the UK (Hassall *et al.* (2005). These authors also found that the employers they surveyed did not think that educational institutions paid enough attention to generic skills as part of the degree course, in spite of the greater importance of generic skills compared to technical accounting skills. However, the same study found that the size of the business influence the perceived relative importance of technical accounting skills versus the complete range of generic skills, with small to medium sized workplaces putting more importance on the generic skills, whereas larger firms were more likely to consider technical accounting skills to be more important.

2.11 Summary

Many researchers have found that gaps can be found among the perceived levels of importance of the generic skills relative to technical accounting skills when employers, accounting students and accounting faculty staff are considered. Employers were more likely to consider generic skills as being more important than technical accounting skills, while academic teaching staff tend to consider technical

accounting skills as being more important, especially within the accounting curriculum. Accounting students, meanwhile, were likely to recognise the importance of generic skills but still considered technical accounting skills to be less important than did their prospective employers.

The demand to include all the generic skills within accounting degree courses has increased over recent years, although presentation skills present some difficulties regarding logistics and assessment. Other generic skills could easily be addressed by the degree course, particularly through the use of case studies and group work. This is primarily because changes in the accounting workplace, especially the increased use of technology to carry out the tasks traditionally performed by accountants, and increased globalisation, have made generic and technical accounting skills more important in the workplace. Some studies found that certain generic skills were taught adequately in accounting degree sources, but other studies disagreed with this finding.

Employers assume that all recent accounting graduates will have at least a basic level of technical accounting skills, by virtue of their qualifications, and will consider generic non-technical skills as the deciding factor when considering a recent graduate for a position as an accountant. The biggest gap between the perceptions of employers and accounting graduates/accounting students was in the area of interpersonal skills. This was also the generic skill set that accounting graduates were most likely to be lacking in. The closest match between the perceptions of employers and accounting graduates/accounting students was in the area of communication skills. Analytical skills were also an area where the perceptions of accountants in the workplace and accounting students were likely to match each other. Analytical skills were the skills that accounting students considered to have been covered adequately by their degree course. Accounting faculty staff seemed to hold similar perceptions. Occasionally, cross-cultural differences can be found regarding the relative importance of technical accounting skills and generic skills, with Western workplaces and universities putting more emphasis on generic skills than did their Chinese equivalents.

Problem-solving skills seemed to be the most ambiguous of the generic non-technical skills, with the findings of some studies relating to the level of this skill in accounting graduates entering the workforce and the perceived comparative importance of this generic skill often disagreeing with the findings of other studies. Out of all the generic skills, presentation skills tended to be perceived as being the least important, especially if “presentation skills” were defined as the ability to use specialised presentation software programs such as PowerPoint.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methods, procedures and processes used to determine what accounting students at six universities (Universities 1-6) and accountants at nine workplaces in Saudi Arabia (Workplaces 1-9) perceive to be the most important generic and technical accounting skills in the world of accounting. The chapter outlines the research stance adopted for the study. The research paradigm and strategies used are discussed. This chapter also discusses the research questions of the study, the data collection procedures used (sampling, data collection techniques and questionnaire), data analysis techniques and ethical considerations adopted in the study. This section will explain the logic behind the research methods and techniques (Welman, Kauger & Mitchell, 2005).

The study population comprised accounting students and accountants from six universities in Saudi Arabia and the nine largest workplaces there. This study employed a mixed method research design utilising both quantitative surveys and one qualitative open-ended question. The open-ended qualitative question was designed to help survey respondents clarify their responses in their own words. The survey questionnaire was the primary source of primary data.

3.2 Research stance/paradigm

This study primarily took the interpretive stance, focussing on the individual perceptions of different groups. This study focused on the need for understanding the important generic and technical accounting skills for accounting students at six universities and accountants in the nine largest workplaces in Saudi Arabia.

This study focused on one geographical area, specifically Saudi Arabia. A quantitative method (a questionnaire survey) was selected. The use of a well-structured questionnaire allowed the study to be carried out without direct contact with the accounting students and accountants in the workforce. The outcome of the research may be useful for both accounting students and accountants by focusing on the important generic and technical accounting skills needed in their studies and their work.

The research undertaken was exploratory in nature, as the objective was to identify the most important generic and technical accounting skills as perceived by accounting students in the six universities and by accountants employed in the nine largest workplaces in Saudi Arabia. The study was mixed (quantitative and qualitative) in nature: the responses of accounting students and accountants were interpreted primarily via a descriptive statistical method in terms of frequency of responses, while the responses to the open-ended question were analysed for key themes. The outcome of the research was not expected to be a solution to the particular problems

faced by the accounting students and accountants; rather, the outcome was expected to be a general contribution to knowledge about generic and technical accounting skills and their importance in the world of accounting.

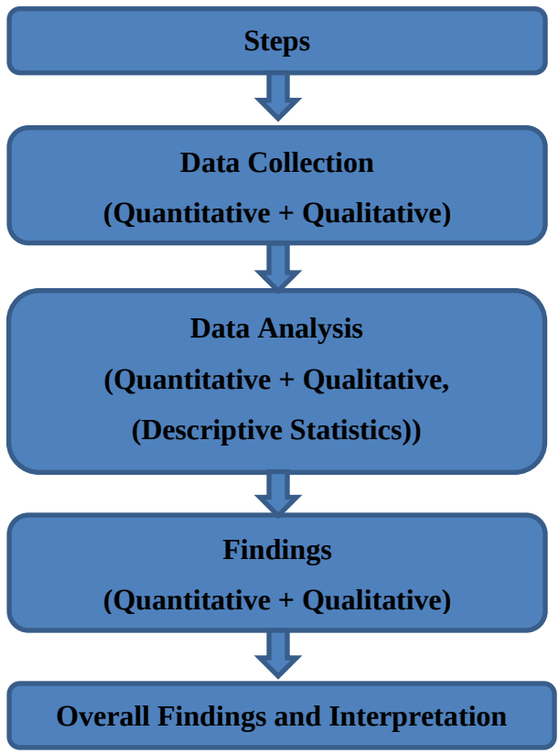
Although the main research method used to collect data was quantitative. A mixed approach was selected, as a blend of quantitative and qualitative approaches allows for greater understanding than either approach used alone (Creswell, & Plano-Clark, 2007). Creswell & Plano-Clark, (2007) have described the advantages of using a mixed approach, and these advantages include the way that a mixed design can allow the researcher to ask a broader range of questions rather than just questions that can be answered quantitatively (yes/no questions or those using a Likert-like scale) or qualitatively (open ended questions and interviews), and combines the strength of both approaches. The mixed approach also allows for greater flexibility and allows more subjective perceptions and beliefs to be expressed by survey respondents (Van Tonder & Williams, 2009).

Creswell and Plano-Clark (2007) provided a very clear definition of the mixed method as follows:

> Mixed methods research is a research design with philosophical assumption as well as methods of inquiry. As a methodology, it improves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data approaches in many phases in the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problem than either approach alone (Creswell & Plano-Clark, 2007, p. 5).

A mixed approach should be structured so that the quantitative and qualitative portions of the questionnaire are presented at the same time (Creswell & Plano-Clark, 2007). This structure allows the qualitative data to be built within the quantitative data. Figure 3.1 shows a guideline to developing research using the mixed approach. The survey presented in this study was designed according to these principles, presenting the open-ended question and Likert-like scale questions to the accountants and accounting students responding to this survey.

Figure 3.1 Structure and process of a mixed research approach in this study



3.3 Research purpose

Research studies have been categorised according to their purpose. In view of the fact that this study identified the set of generic and technical accounting skills that are perceived as being important by accounting graduates and accountants, and how these impact on the employability of the accounting graduates as well as professional job outcomes for the accountants, this study can be described as being explanatory and descriptive, rather than analytical or predictive.

3.4 Research strategy

A number of research strategies have been used to collect data in previous studies of this type. These include the survey method, experimentation, use of case studies and the grounded theory method. This study used the survey method, which involved identifying a group of respondents who are most likely to be affected by the requirement for generic and technical accounting skills and asking them questions to substantiate the major issues which the study aimed to shed light on. The choice of this method over all the others can be justified on the grounds that the data to be collected was not easily observable and therefore, lent itself well to the survey method (Enanoria, 2008).

Both qualitative and quantitative questions were posed, both forms of data collected and analysed, and a qualitative interpretation was made. This study used a mixed method design (survey questionnaire including an open-ended question) because this is a good method for collecting data from a large population. It is one of the most popular methods in management research and it is also useful when the researcher cannot control the variables in the study. Interpretation of the data in the Discussion chapter allowed more subtle nuances to be captured, along with key themes and

trends. Other methods that were rejected were the interview and observation methods because these are very time-consuming and allow for only a small number of participants. Using a questionnaire, it is easy able to collect data by emailing the participants or by directly telephoning or mailing them to collect their' answers to the questionnaire. One advantage of using emailed surveys is that the participants are likely to feel comfortable answering the questionnaire via computer and this technique makes it easy to transform responses into numeric data in Microsoft Excel. The survey method is popular because it is easy to survey a large population at low cost (Brownell, 1995; Gosselin, 1997) and the researcher can produce much data in a short time (Denscombe, 1998). A questionnaire was preferred in this study because it avoided the difficulty of setting up physical appointments with the participants, accounting students or accountants who are often busy. By contrast it was easy to collect data from these participants when they could fill in a questionnaire at any convenient time using email.

In this study, the population of interest comprised accounting students at six universities and accountants in the largest nine workplaces in Saudi Arabia. Due to time and resource limitations, it was not possible to sample the entire population of interest. Instead, a representative sample from this population was obtained. A total of 120 accounting students from the six universities and 51 accountants from the nine workplaces were included in the study.

The list of all accounting students studying at the six universities was obtained from the university records (via the Academic Registrar). These students, being accounting students, were registered with the College of Business Administration at the six universities. The names of the students were arranged alphabetically, and 120 respondents were chosen using a simple random sampling method. Likewise, the list of practicing CPAs (Certified Public Accountants) from the nine workplaces was obtained, from which the 51 respondents were selected using the same random sampling method. As pointed out by Dawson (2002), the simple random sampling method is a type of probability sampling method. All members of the population of interest have a known non-zero chance of being selected for the sample. This method ensures that bias and subjectivity in the sampling is kept to the bare minimum.

In the current study, the empirical data were gathered from accounting students and accountants groups about their responses regarding the need for generic and technical accounting skills in Saudi Arabia. Primary evidence was collected using questionnaire surveys and the researcher depended on the literature review as a secondary source of information.

3.5 The research objective and research questions

The research aims of this study are:

1- What do accounting students in the universities in Saudi Arabia see as the most important generic and technical accounting skills?

2- What do the accountants in the largest accounting firms in Saudi Arabia perceive to be the most important generic and technical accounting skills?

A research study is designed to investigate and attempt to answer a set of clearly defined research questions (Collis & Hussey, 2009). The following set of research questions provided a focus for this study. These included:

Question 1:

a- What generic and technical accounting skills do accounting students at the six main universities and accountants at the nine main workplaces in Saudi Arabia consider important?

b- How well are the generic and technical accounting skills taught to current accounting students at the six main Saudi universities and how well were they taught to accountants who are already working in the nine principal workplaces?

c- How well are generic and technical accounting skills used by accounting students during their current studies and how well were these skills used by practising accountants during their previous studies at university?

Question 2:

a- What specific skill levels do accounting students at the six main Saudi universities require to get a good job, and what skills are required by accountants such as CPAs in their current positions at the nine main workplaces in Saudi Arabia?

b- Which specific generic and technical accounting skills do accounting students at the six main Saudi universities and accountants at the nine main workplaces in Saudi Arabia have?

Question 3:

a- How are the generic and technical accounting skills ranked in their degree of importance relative to each other, and does this ranking differ between accounting students and accountants?

b- Which kind of generic and technical accounting skills are seen as essential but have been omitted from the questionnaire?

c- How do generic skills compare in importance to technical accounting skills, and does this perception differ between accounting students and accountants?

3.6 Data collection and instrument:

3.6.1 Sample and population

The population for this research included accounting students and accountants from Saudi Arabia. However, considering the scope of the research, the researcher decided to choose 120 accounting students at the six main universities (Universities 1-6) and

51 accountants from the nine largest workplaces (Workplaces 1-9) in Saudi Arabia as the sample from which to collect data. Surveys were distributed to these selected participants over a 3-month period. The total number of participants was 171. This allowed comparison between accounting students with respect to their university education and accountants with respect to their workplace. The comparison between these groups helped to answer the research questions about the need for important generic and technical accounting skills in these two areas. The research aimed to compare essential generic and technical accounting skills in the six universities and the nine workplaces to determine which generic and technical accounting skills should be emphasised and taught at university to meet the generic and technical accounting skills needs of graduates in their future work.

3.6.2 Data collection techniques

Two data collection techniques were used initially: email and delivery by hand. These techniques have the advantage of being cheap to implement.

A structured questionnaire was administered to the respondents. This was done through the use of both hand-outs and email for male respondents. For female respondents, only the email technique was used because Saudi Arabia's cultural norms forbid one-on-one interviews with Saudi women when the researcher is male. A copy of the cover sheet and the questionnaire as presented to the survey respondents is presented in Appendices B and C.

3.6.3 Questionnaire

Once the sample to be studied was identified, the questionnaire method of data collection was used.

The primary data collection tool used was confidential questionnaires, developed by the researcher in an attempt to identify the most important generic and technical accounting skills for accounting students in the six universities and the nine workplaces in Saudi Arabia. Use of questionnaires provided the researcher with an appropriate tool to collect large numbers of responses in a relatively short time span. Moreover, questionnaires could accommodate a large range of questions and a high number of participants. As previously mentioned, questionnaires are also more appropriate for mixed method studies such as this one.

A questionnaire (see Appendices B, C, D and E) was given to participants from the six main universities (Universities 1–6) and to accountants at the nine main workplaces in Saudi Arabia (Workplaces 1–9). There were three demographic questions relating to study participants in this questionnaire: occupation (including the level of study and the university name for accounting students and the type of

company and the company name for accountants), gender and email address (see Appendix C).

There were three main research questions (see section 3.5) in the questionnaire. The first question had three sections; the first used a 7-point Likert-like scale ranging from "strongly agree" to "strongly disagree" and provided data relating to the main generic and technical accounting skills, and the second and third sections had a 7-point Likert-like scale ranging from "exceptional" to "very poorly" and provided data relating to the teaching of these skills in the university and the application of these important generic and technical accounting skills in the university. This question was for both accounting students and practicing accountants.

The second question had two sections. The first section was just for accounting students and had two statements. The first one used a 6-point Likert-like scale ("Not required", "Basic", "Intermediate", "High", "Advanced" and "Do not know") covering skill levels, which provided data about the students' perceptions of the level of generic and technical accounting skills that would be required for them to get the job they want. The second statement used a 5-point Likert-like scale ("None", "Basic", "Intermediate", "High" and "Advanced"), which addressed the level of these skills the accounting students had. The second section was similar but had different questions that were aimed solely at practicing accountants, related to the workplace.

The last question in the questionnaire had three sections. The first one asked participants to rank the main generic and technical accounting skills from 1 as most important to 7 as least important, while the second section had a qualitative open-ended question about generic and technical accounting skills the participant considered to be important but which had not been covered in the questionnaire. The last section asked participants to rate the importance of technical accounting skills compared with other skills using a percentage scale. The questionnaire was created for this study. These responses were analysed using Microsoft Excel to draw up frequency tables and figures.

3.6.4 Analysis of survey questions:

The first question provided data relating to the teaching of generic and technical accounting skills in the university and the application of technical accounting skills and the important generic skills in the university including: communication skills, problem-solving skills, interpersonal skills, teamwork skills, presentation skills and analytical skills. Analyses compared the participants' responses to these questions, i.e. responses were compared between accounting students at six universities and accountants at the nine main workplaces in Saudi Arabia. Responses were expressed as percentages and displayed graphically.

3.6.5 The level of important generic and technical accounting skills required versus the level of skill respondents possessed

The second question concerned the level of important generic and technical accounting skills required to get a job, and what generic skills (communication skills, problem-solving skills, interpersonal skills, teamwork skills, presentation skills and analytical skills) and technical accounting skills they currently had. The results were displayed as percentages in seven graphs.

The second section of the second question was similar, but had different statements that were just for accountants, related to the workplace. These statements were analysed in the same manner as described above.

The last question had three sections. The first one asked participants to rank the main generic and technical accounting skills from most important to least important. The analysis showed the groups' responses graphically and showed how each group ranked each skill from 1 (most important) to 7 (least important). The second section of the last question asked about any important generic skills which had not been mentioned, using open-ended questions. This section was analysed to determine whether any of the participants thought there were any important generic skills omitted from the survey. The final section asked participants to use a 0–100% scale to indicate the importance of technical accounting skills relative to generic skills.

3.7 A discussion of data analysis:

The use of 7-, 6- and 5-point Likert-like scales to rank the interviewee responses meant that the units of measurement in the study were ordinal. Data was collected using a survey (questionnaire) to answer the research questions, which looked at the main generic and technical accounting skills needed when comparing accounting students at university and practicing accountants in the workplace.

Microsoft Excel was used to draw up frequency tables and figures for the three main research questions in the questionnaires because this program is appropriate with more than two different samples completing the questionnaire. Questionnaire responses were expressed as percentages in all three questions except the open–ended question. Responses for each section were drawing up frequency by tables and figures for the three main research questions by using Excel software.

The results have been grouped into five categories under three main headings. Each category has different sample groups but similar questions.

1- Accounting students (six universities) three categories:
    - **a.** Postgraduate and undergraduate accounting students at all six universities
    - **b.** Male and female accounting students at all six universities
2- Accountants (nine workplaces) two categories:
    - **a.** Government and non-government accountants at all nine workplaces

b. Male and female accountants at all nine workplaces

3- The final category was all accounting students and accountants in all six universities and all nine workplaces in Saudi Arabia

Accounting students were categorised in three ways and their responses were analysed using Excel for the three sample groups: postgraduate accounting students (University one, University two) and undergraduate accounting students (University three, University four University five and University six) and male and female accounting students. This showed the differences between the sample groups' responses to each question in the questionnaire. All findings were presented graphically in the result's chapter and by tables in the Appendices F and G.

Practising accountants were also categorised into three sections and their responses analysed using Excel by drawing up frequency tables and figures. The comparison in these categories was the same as for the accounting students, but with different sample groups: government accountants (Workplace one, Workplace two, Workplace three, Workplace, four) and non-government accountants (Workplace five, Workplace six, Workplace seven, Workplace eight and Workplace nine); and male and female accountants. Responses to each question in the questionnaire were presented graphically in the result's chapter and by tables in Appendices H and I.

Lastly, all accounting students and accountants were analysed together for the main six universities (Universities 1-6) and the nine main workplaces in Saudi Arabia (Workplaces 1-9). All participants' responses to each question in the questionnaire were presented graphically in the result's chapter and by tables in Appendix J.

3.8 Ethical issues

Due to the sensitive and confidential nature of the research, ethical issues were of considerable significance in this research. Though questionnaires were distributed across different six universities and nine workplaces, the accounting students and the accountants were given complete freedom to participate or decline to participate in the questionnaire survey. No types of coercion or incentives were used at any stage of the research in order to get accounting students or accountants to participate in the research. Participants' information sheets were attached along with the questionnaire which provided complete details on what the research was about and the kind of questions they were required to answer. Detailed explanations were provided indicating the protection of anonymity and confidentiality of the research. Participants were given the option of declining to participate in the research without needing to provide any reason. They were also able to decline to answer particular questions or to withdraw completely from the research at any time, and to withdraw any information that they had provided at any time before the completion of data collection. Participants were given the right to access any data that had been collected

from or about them. Participants were also provided with information about the estimated time required to complete the questionnaire.

Every care was taken to ensure confidentiality. The first page of the questionnaire stated: "The researcher will not use any participants' details such as name of participant or place in the questionnaire in this study." (See Appendix B). No individual persons were able to be identified from the output of the study. Only the principal researcher and his supervisor had access to the information/data collected from participants in raw form. The researcher will destroy the information once the report has been completed and graded. No direct contact was made between the researcher and the participants except via email and face-to-face interviews. The research supervisor had access to data with all identifying details removed.

The researcher translated the questionnaire into the Arabic language to make sure all participants would be easily able to complete it (See Appendix D and E). The questionnaire and the translation were handed to one accounting faculty in Saudi Arabia to make sure all the translations were clear. The researcher was in a familiar environment in which to gather the data from participants, because all of them were from same culture and spoke the same language. There are not likely to be any conflicts of interest involved in collecting data from the participants (See Appendix D and E).

3.9 Scope and limitations of the study

3.9.1 Scope

- This project has covered just two sample populations: accounting students and accountants.
- The researcher focused only on the Saudi Arabia area.
- This study used just two methods of contacting survey respondents: emailing (Microsoft Word) and face-to-face interviews for male participants and emailing only for female participants, to avoid difficulties in scheduling face-to-face interviews with women. Saudi Arabia's cultural norms mean that it is inappropriate for a male researcher to interview female subjects.
- There are many universities and workplaces in Saudi Arabia but this study focused on the main universities and workplaces.
- There are many different generic skills but this study just focused in the main seven skills that most important for accounting students and accountants.
- This study only identified the importance of generic and technical accounting skills with accounting students and accountants in the universities and the workplaces in Saudi Arabia and did not identify the generic skills that survey respondents were actually lacking in.

3.9.2 Limitations

One of the main limitations of this study was the sample size, especially for the subgroup of female accountants in the workplace. The expectation in New Zealand would be for equal numbers of male and female or accountants, but this was not the case here.

One potential problem lies in collecting interview data from Saudi women. Cultural norms mean that it is inappropriate for a male researcher to interview female subjects. The researcher may therefore be able to conduct face-to-face interviews with women only if they are accompanied by the woman's parents, husband or brother, and all participants are comfortable with the situation. Another option would be for the questionnaire to be delivered to female participants by email, thus avoiding direct personal contact, or for the questionnaire to be given to female participants in hard-copy form by their tutors or workplace managers. A third possibility would be to include face-to-face interviews with female accountants and accounting students conducted by a female researcher.

The second limitation of this research is that the boundaries between certain generic skill sets were not clear cut. This may particularly be the case in the area of presentation skills. A number of generic skills overlap. For example, problem solving skills may overlap with the capacity for analysis (analytical skills). Similarly, teamwork skills overlap with interpersonal skills, and interpersonal skills overlap with communication skills. Some of the survey respondents may have differing interpretations of these skills and this may have influenced the response. One possibility for future research may involve a second survey with a more detailed definition of the different generic and technical accounting skills being presented to the survey respondents in order to avoid any confusion.

Another area that this survey did not address was the length of time that the accountants in the workforce had actually spent in their current job. Including this factor (time spent employed as an accountant) could capture a number of shifts in the modern business world. Many researchers (see the literature review) have commented that computers have taken over many of the tasks that formerly were done by accountants themselves. An accountant who has been in the workforce for a long time may have entered the workforce in the days when the technical accounting skills were used almost exclusively and the day-to-day responsibilities of accountants involved manually filling out forms, making calculations and using ledgers. He (or, less likely in the Saudi Arabian context, she) would have noticed these changes taking place and the shift in emphasis towards a greater importance of the generic and technical accounting skills. Similarly, including the time spent in the workforce may also capture the modern shift in how accounting is taught at university, and the contrast

between the accounting students of today and the accountants who graduated more than ten years ago may be more defined.

3.10 Summary

This study used a mixed methods approach that combined qualitative (open ended questions) and quantitative (Likert-like scales) methods to capture the maximum amount of detail possible and thus improve the overall quality of the study. The study was a cross-sectional survey, where the sample included 120 accounting students from six Saudi Arabian universities and 51 accountants employed in nine major companies in the same country. The survey was delivered by hand or via an emailed questionnaire in English and Arabic. The questions that formed the quantitative part of the survey covered the generic and technical accounting skills that respondents perceived to be important, whether or not the skill had been covered well as part of the degree course studied by the respondents, whether or not the respondents had used the skill at university, the level of skill needed to get a job as an accountant, the level of skill currently held by the respondents, the relative importance of the generic and technical accounting skills, and whether generic skills or technical accounting skills were more important. The survey also included an open-ended question that allowed respondents to list other generic skills that the study could have included.

CHAPTER FOUR: RESULTS

4.1 Introduction

This chapter presents the findings yielded by analysing the responses of the survey participants. The responses of each of the subgroups surveyed are analysed in separate subsections in this chapter. Within each section, the results investigate how each group responded to the following main research questions:

- What generic and technical accounting skills do accounting students and accountants in Saudi Arabia consider important?
- How well were the generic and technical accounting skills taught to the respondents at university?
- How well were generic and technical accounting skills used at university during their past or current tertiary studies?
- What specific skill levels are required to get a good job?
- Which specific generic and technical accounting skills, and at what level do the respondents have?
- How do the generic and technical accounting skills stack up in their degree of importance relative to each other?
- Are there any important skills missing from these questions above? Which kind of generic skills are seen as essential but have been omitted from the questionnaire?
- How do generic skills compare in importance to technical accounting skills?

The raw data used in all categories used to compile the graphs used for this analysis are presented in the appendices.

4.2 Undergraduate and postgraduate accounting students

4.2.1 Skills considered important

On the whole, the majority of both the undergraduate and the postgraduate accounting students at six Saudi Arabian universities considered all of the skill sets to be important, at least to some degree (Figure 4.1). The skills that both groups of students were most likely to strongly agree about the importance of (when the two groups were considered overall) were technical accounting skills, with 39% of undergraduate students strongly agreeing and 50% of postgraduate students strongly agreeing that this skill was important.

Undergraduate students, however, were most likely to strongly agree that problem-solving skills were important, with 48% giving this response. For the postgraduate students, meanwhile, the technical accounting skills were definitely rated as being important, with 50% strongly agreeing that this skill was important, as described above, 20% agreeing and 15% agreeing somewhat, with only 5% disagreeing somewhat and 10% remaining undecided. The skills that both groups of students considered unimportant were presentation skills, with 4% of undergraduate students disagreeing somewhat, 3% disagreeing and 5% disagreeing strongly about these

skills, while 10% of postgraduate students disagreed somewhat that these skills were important.

Postgraduate students were also more likely than undergraduate students to be undecided as to whether a certain skill was important or not: 5% were undecided about the ability to communicate (vs. 3% of undergraduate students), 15% were undecided about interpersonal skills (vs. 1% of undergraduate students), 20% were undecided about problem-solving skills (vs. 7% of undergraduate students, 10% were undecided about teamwork skills (vs. 7% of undergraduate students) and 10% were undecided about technical accounting skills as described above (vs. 9% of undergraduate skills).

However, postgraduate students showed the reverse trend regarding the capacity for analysis, where 0% were undecided about this skill area (vs. 7% of undergraduate students), and presentation skills, where 5% were undecided about presentation skills (vs. 12% of undergraduate students) (For more detailed results, see Appendix F).

4.2.2 How well were the generic and technical accounting skills taught?

The skill that undergraduate students were most likely to consider as having been covered adequately (Figure 4.2) was the ability to communicate, with 20% stating that coverage of this skill as part of their degree course was exceptional, 36% that coverage was excellent and 26% that these skills were covered very well. For postgraduate students, the skill that was most likely to be rated as having been covered adequately was technical accounting skills, with 15% stating that coverage had been exceptional, 40% that coverage had been excellent and 20% said their degree course had been covered very well.

When the responses of both groups were considered together, the ability to communicate tended to be the most likely to be rated as having been covered adequately, with 82% of undergraduate students responding positively (responses of "exceptional", "excellent" and "very well") and 70% of postgraduate students responding positively (this skill area was the second most likely to be rated as having been adequately by postgraduate students).

The skills that undergraduate students were least likely to consider as having been adequately were technical accounting skills, with 10% stating that coverage of these skills had been average, 9% stating that it had been poor and 3% stating that it had been covered very poorly. For postgraduate students, the skills that this group was least likely to consider as having been covered adequately were the ability to communicate (5% average, 5% poor and 10% very poor), interpersonal skills (20% average), teamwork skills (15% average and 5% average), technical accounting skills (10% average, 5% poor and 5% very poor) and presentation skills (10% average and 10% poor). This suggests that postgraduate students were more likely than

undergraduate students to state that a skill had been covered poorly to some extent by their degree course; it also suggests technical accounting skills were the most likely skill set to be considered as not having been covered adequately by either group of students. Undergraduate students were also more likely to state that skill had been covered well, with more undergraduate students that postgraduate students giving responses of "well" in all skill areas except the capacity for analysis, where 16% of undergraduates said that the skills had been covered well compared with 20% of postgraduate students (For more detailed results, see Appendix F).

Figure 4.1: Level of agreement about the important of skills by postgraduate and undergraduate accounting students

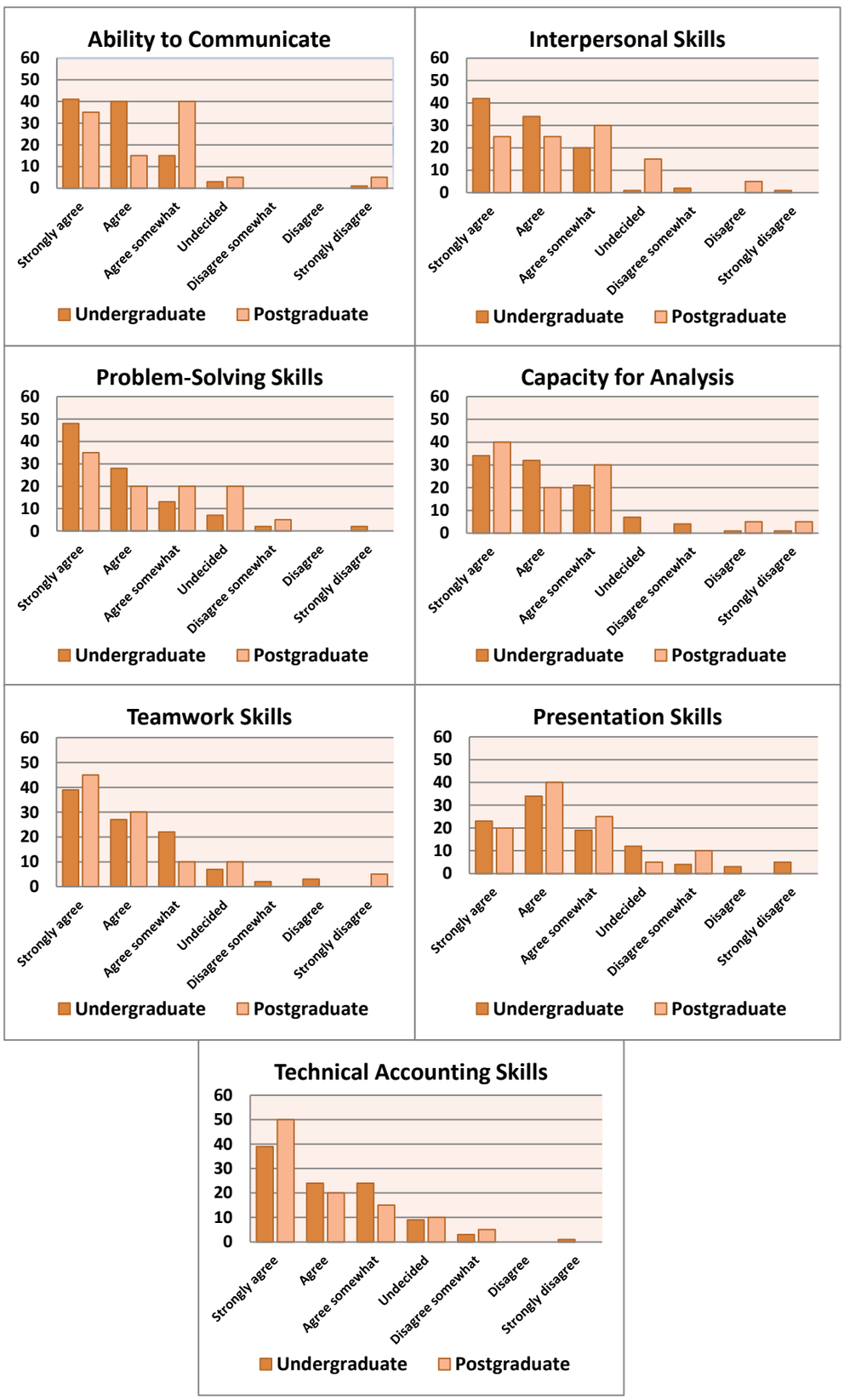
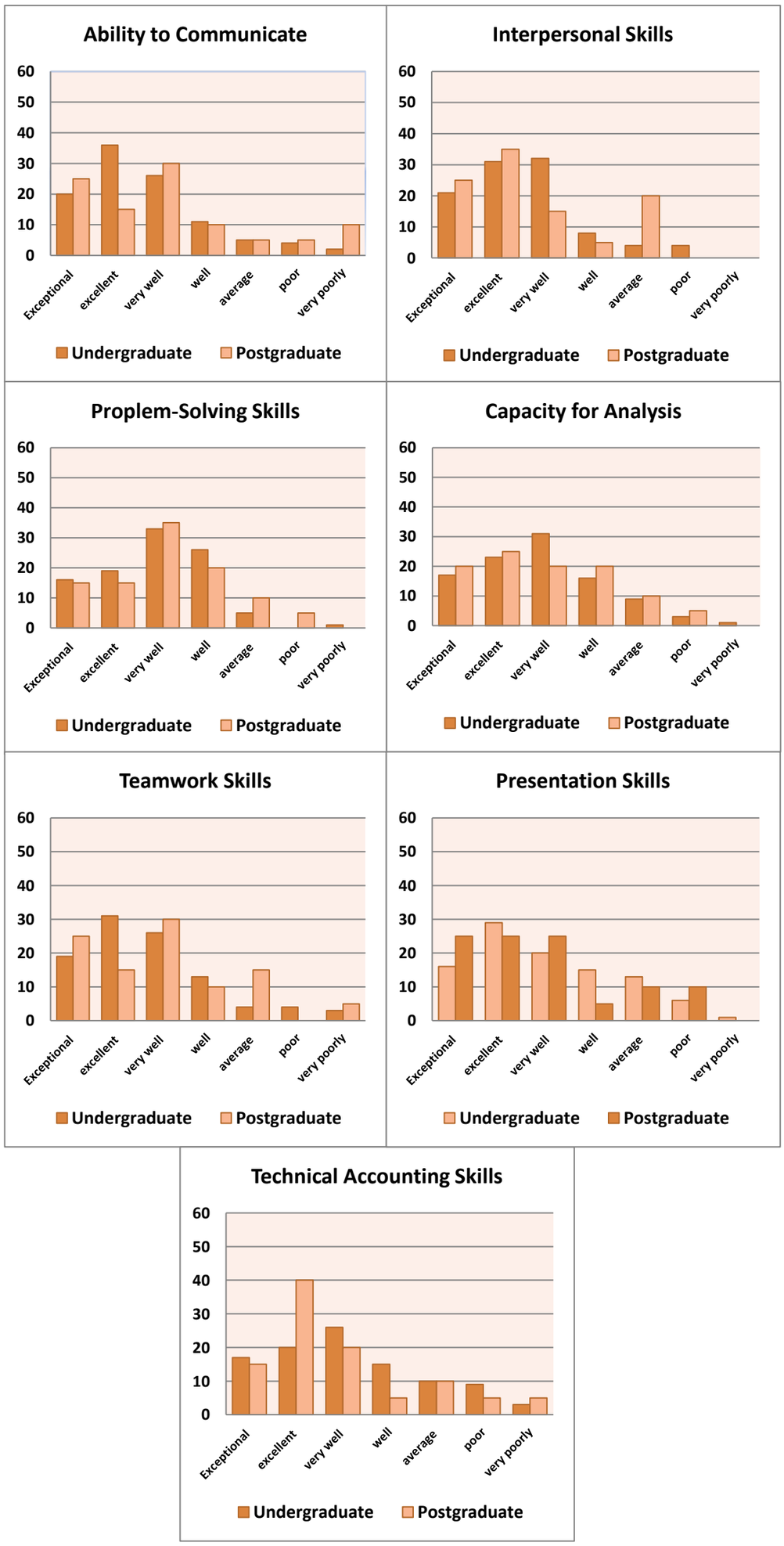


Figure 4.2 The skill were well taught to postgraduate and undergraduate accounting students



4.2.3 How well were the generic and technical accounting skills used at university?

Postgraduate students were most likely to respond positively (i.e. responses of "exceptional", "excellent" or "very well") about technical accounting skills when they were asked how well they had used certain skills at university (Figure 4.3): 20% said their use had been exceptional and 10% said their use had been excellent, and a very high 55% stating that that they had used this skill very well. Postgraduate students were also very likely to respond positively that they had used the ability to communicate (80%) and interpersonal skills (80%) at university; however, the skill which postgraduate students were most likely to state that they had used exceptionally at university was the ability to communicate, with 35% giving this response.

The undergraduate students were also most likely to respond positively that they had used the ability to communicate and interpersonal skills when they were at university, with 84% and 84%, respectively, giving this response. These results suggest that overall, interpersonal skills and the ability to communicate were the skills most likely to have been used at university by both groups of students, and also suggest that postgraduate students were more likely than undergraduate students to have used technical accounting skills at university (85% responding positively vs. 59% of undergraduate students responding positively).

Technical accounting skills were the skills that undergraduate students were least likely to have used at university, with 7% stating that their use had been average, 8% poor and 4% very poorly that they had used these skills, while 22% said that they had used these skills well. For postgraduate students, on the other hand, the skills that were least likely to have been used at university were presentation skills, with 15% stating that the use of this skill had been average and 10% stating that it had been poor. This skill area was the second most likely to not have been used by undergraduate students, with 13% that their use of this skill at university had been average, 4% that it had been poor and 1% very poor.

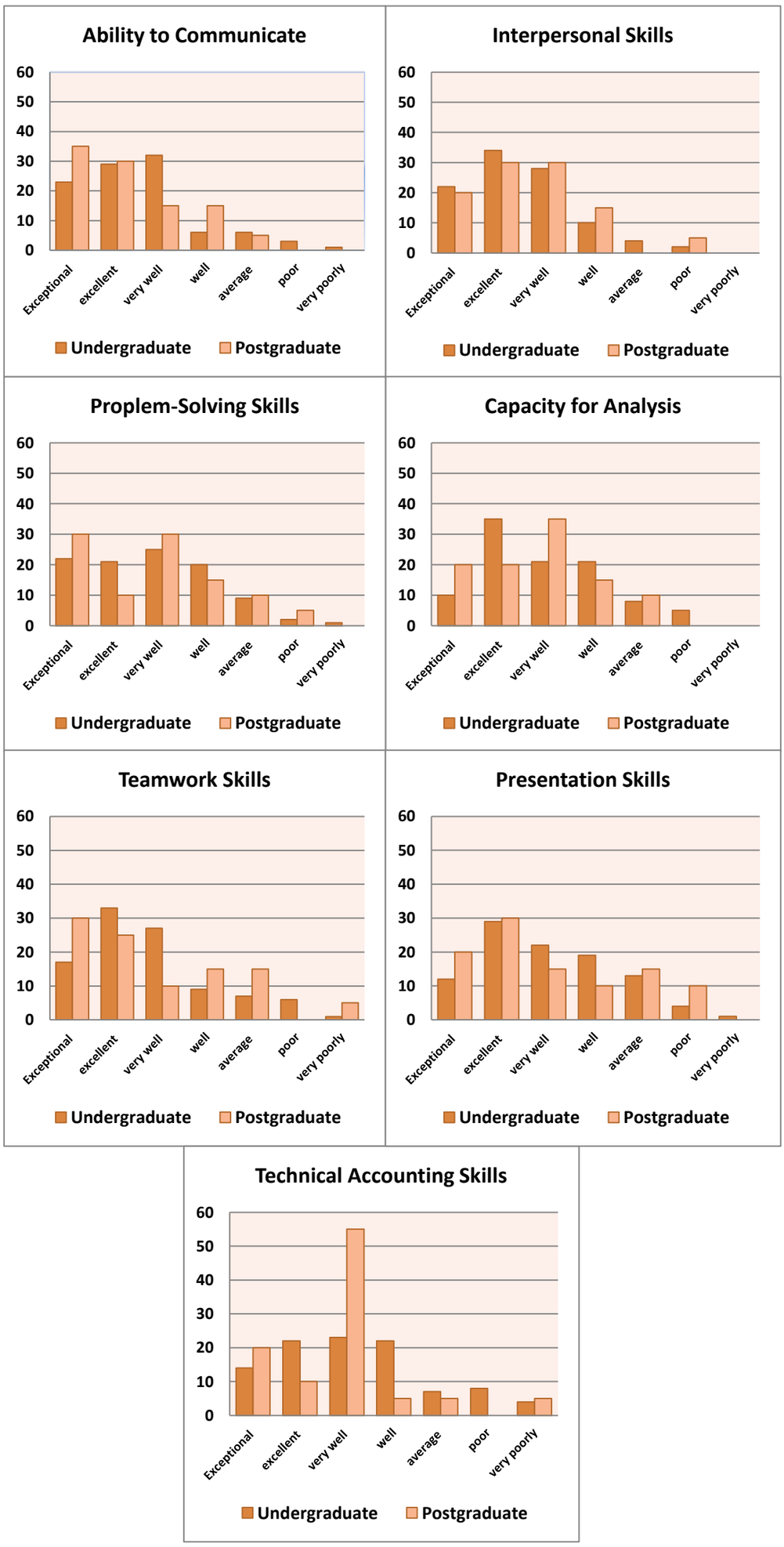
The finding regarding the use of technical accounting skills at university and the differences between the two groups of students was the most striking finding from the results of this survey question (For more detailed results, see Appendix F).

4.2.4 Specific skill levels required to get a good job

The most notable difference between the two groups of students (Figure 4.4) was that postgraduate students were more likely to consider that a skill was not needed in order to get a job, and more postgraduate than undergraduate students considered a skill unnecessary in the workplace in all skill areas:

- 10% of postgraduate students considered that no ability to communicate was needed, compared to 1% of undergraduate students;

Figure 4.3 How the generic skills were used at university by postgraduate and undergraduate accounting students



- 5% of postgraduate students considered that no interpersonal skills were needed, compared to 2% of undergraduate students;
- 5% of postgraduate students considered that no problem-solving skills were needed, compared to 1% of undergraduate students;
- 10% of postgraduate students considered that no capacity for analysis was needed, compared to 3% of undergraduate students;
- 10% of postgraduate students considered that no teamwork skills were needed, compared to 7% of undergraduate students;
- 15% of postgraduate students considered that no technical accounting skills were needed, compared to 4% of undergraduate students; and
- 5% of postgraduate students considered that no presentation skills were needed, compared to 4% of undergraduate students.

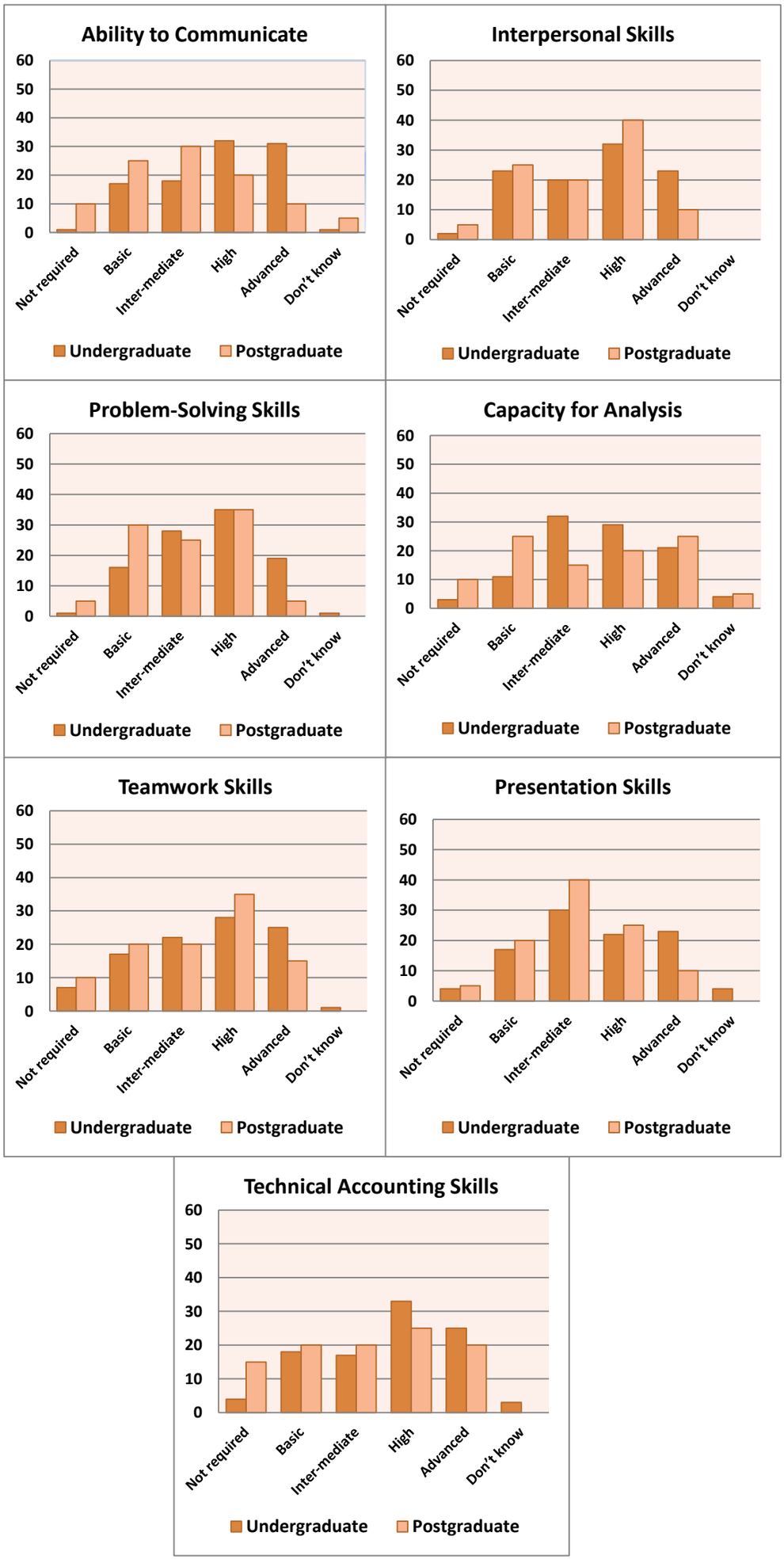
The skill area that postgraduate students were most likely to consider as being needed at a high or advanced level were teamwork skills (35% considered that a high level and 15% considered that an advanced level of skill was needed) and interpersonal skills (40% considered that a high level and 10% considered that an advanced level of skill was needed). For undergraduate students, on the other hand, the skill that they were most likely to consider as being needed at a high or advanced level was the ability to communicate, with 32% believing that a high level and 31% believing that an advanced level of skill was needed in this area.

Undergraduate students were much more likely than postgraduate students to state that they did not know what level of skill would be needed, with a small percent from this group giving this response for all skill areas; postgraduate students, however, only responded that they did not know what level of skill would be needed in two areas: the ability to communicate and capacity for analysis (For more detailed results, see Appendix F).

4.2.5 Current generic and technical skill levels

The skills that undergraduate students were most likely to consider to be an area of strength (i.e. they considered that they had a high or advanced level of skill) were interpersonal skills (Figure 4.5), with 45% of undergraduate students considering that they had a high level of skill and 15% considering that they had an advanced level. However, the areas were undergraduate students were most likely to rate themselves as having an advanced level of skill were teamwork skills (18%) and the ability to communicate (17%), although the lower percent of undergraduate students considering that they had a high level of skill made these skills less of an area of strength overall.

Figure 4.4 The skill levels needed to get a job according to postgraduate and undergraduate accounting students



For postgraduate students, the skills that were most likely to consider as being an area of strength were also interpersonal skills (35% considered that they had a high level and 15% considered that they had an advanced level of these skills). Again, as for the undergraduate students, teamwork skills were the skill set that was the one for which postgraduate students were most likely to consider that they had advanced level of skill in, with 20% giving this response. Overall, as can be seen from these results, the responses of the two groups of students were very similar, with the closest match between the two groups being seen in the area of interpersonal skills.

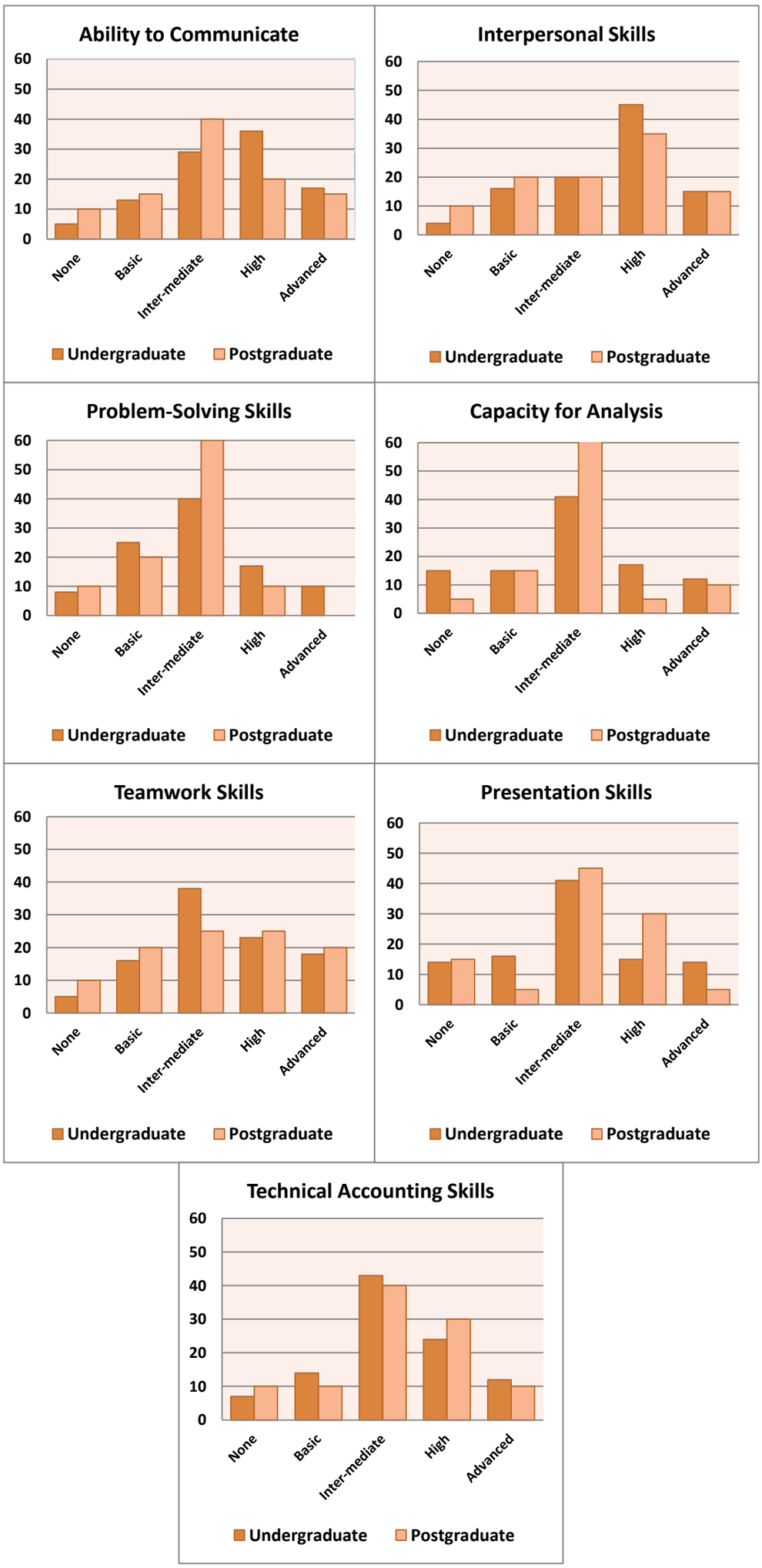
One point of contrast did appear, however. Postgraduate students were much more likely to state that they had no skills in a certain area, with the percent of postgraduate students responding "none" being higher than that for undergraduate students for all skill sets except the capacity for analysis, where 5% of postgraduate students said that they had no skills in contrast to 15% of undergraduate students. The skills where both groups of students were most likely to rate themselves as having no skills were presentation skills: 14% of undergraduate students and 15% of postgraduate students rated themselves as having no skills in this area (For more detailed results, see Appendix F).

4.2.6 How the generic and technical accounting skills stack up in their degree of importance relative to each other

Postgraduate students and undergraduate students gave very similar responses in two areas (Figure 4.7): both groups were highly likely to respond positively regarding the relative importance of the ability to communicate (for undergraduate students, 39% rated this skill as being most important (1), 17% very important (2) and 19% important (3), compared with 50%, 5% and 20% respectively for postgraduate students) and both groups were highly likely to respond negatively regarding the relative importance of presentation skills (for undergraduate students, 48% rated this skill as being least important (7), 23% less important (6) and 13% not very important (5), compared with 45%, 10% and 20% respectively for postgraduate students).

For both groups, the ability to communicate was considered to be the most important skill area, and presentation skills were the least important. Another area where the responses of both groups of students matched closely was regarding the relative importance of technical accounting skills: the responses of both groups were approximately normally distributed, with a slight skew towards the right (i.e. the skill was slightly more likely to be considered unimportant) with a peak appearing for both groups at "less important (6)", with this peak being higher for undergraduate students (26%) than for postgraduate students (20%). One area about which the two groups differed in their response patterns was in the area of problem-solving skills, where undergraduate students had responses that followed a more or less normal curve, with a peak at "somewhat important (4)" (23%).

Figure 4.5 Skill level of postgraduate and undergraduate accounting students



Postgraduate students, on the other hand, did not show this normal curve in their responses their view of problem solving skills and their views tended to lie toward one extreme or the other rather than in the mid-range , with only 15% stating that these skills were somewhat important (4) and the other students being approximately divided in their opinions, with 45% responding positively (5% most important (1), 30 % very important (2) and 10% important (3)) and 40% responded negatively (25 % less important (6) and 15% least important (7)). The two groups also differed in their perception of interpersonal skills, with 62% of undergraduate students responding positively (vs. 45% of postgraduate students), 9% stating that this skill was somewhat important (4) (vs. 20% of postgraduate students) and 29% responding negatively (vs. 35% of postgraduate students) (For more detailed results, see Appendix F).

When the skills were ranked in order (Figure 4.6), the responses of both groups were very similar. For undergraduates, the most important skills were communication skills, followed by interpersonal skills and capacity for analysis, after which came problem solving skills and technical skills. Teamwork skills were ranked as second least important, and presentation skills as the absolutely least important. For post-graduate students, the rankings were only slightly different, with the ability to communicate being by far the most important skill, followed by capacity for analysis and then interpersonal skills. Problem-solving, technical and presentation skills were roughly equal in importance for this group (all having a generally low rating), and teamwork skills were considered the least important.

Figure 4.6 Ranking of the skills in order of importance

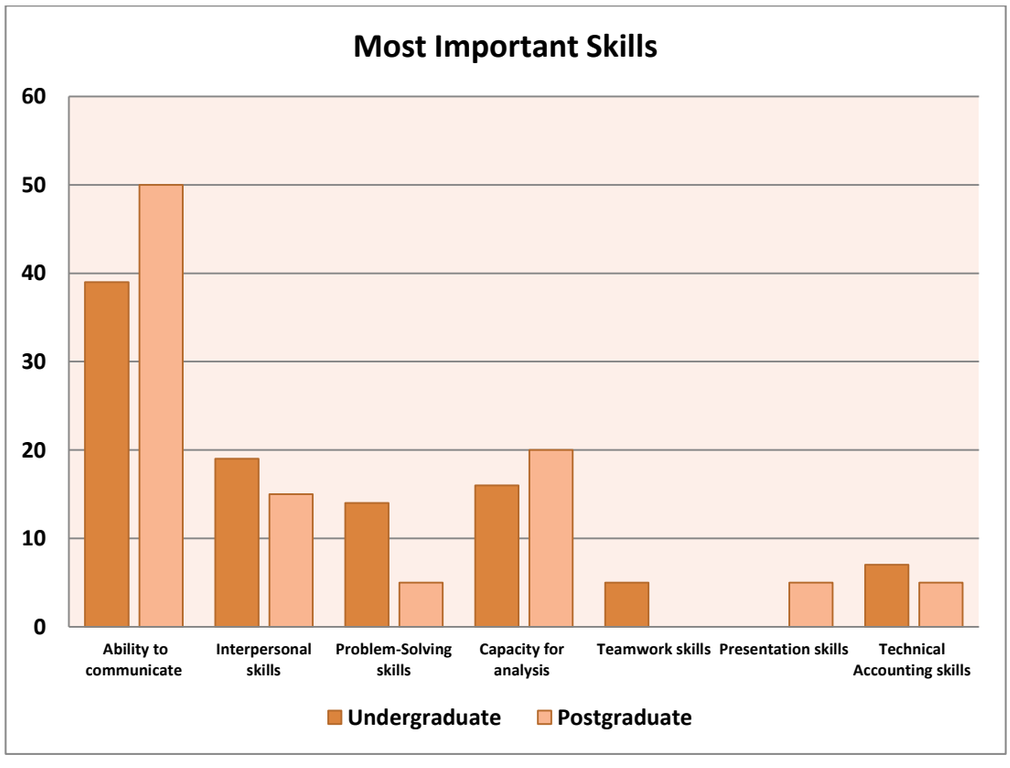
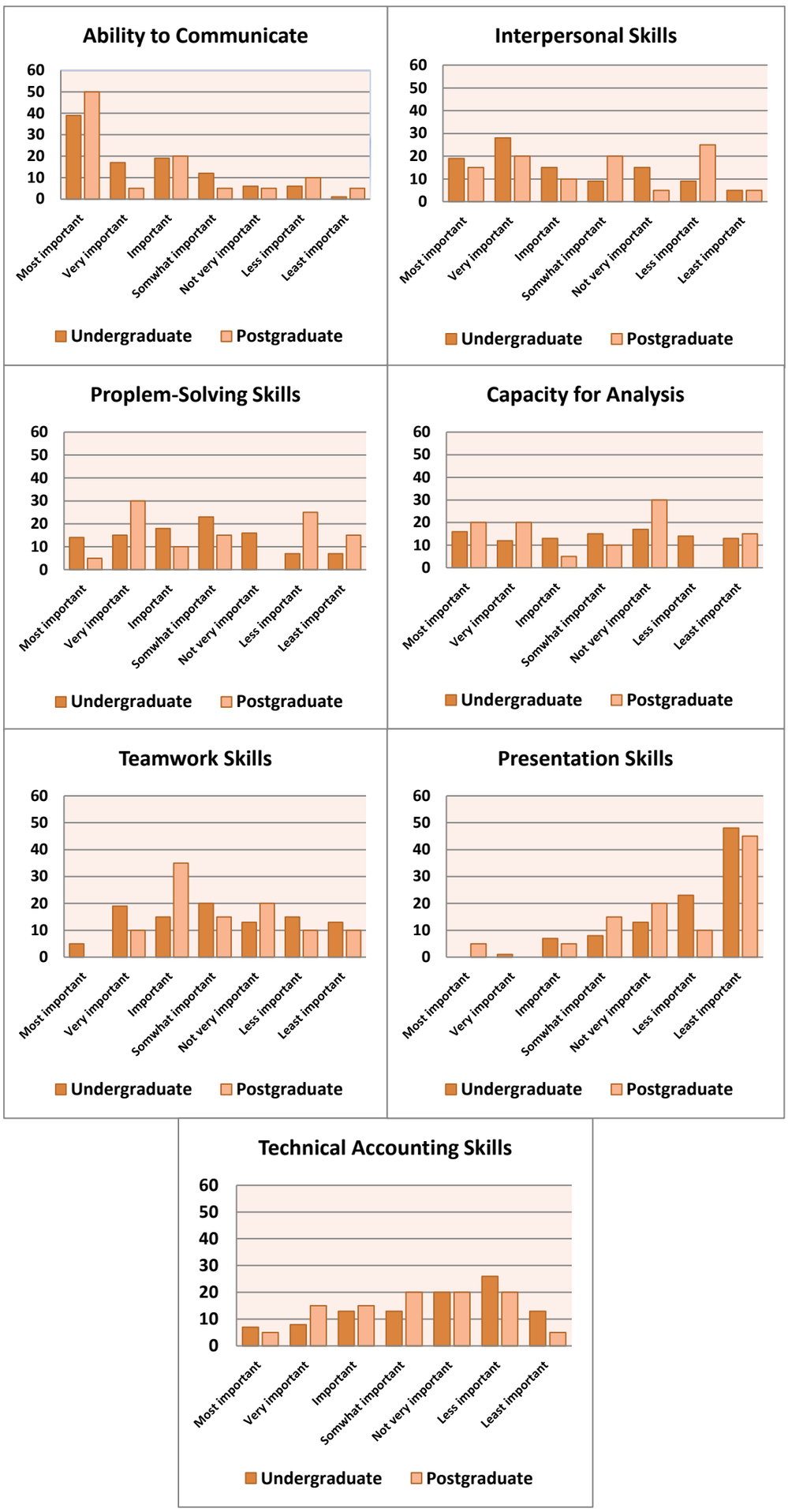
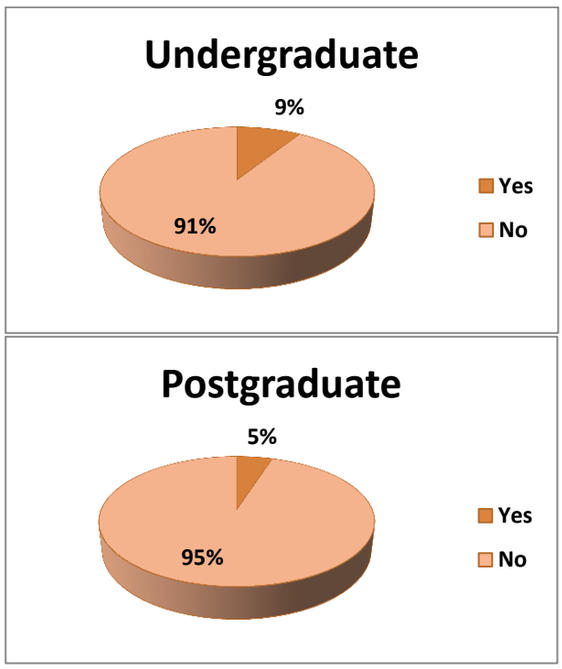


Figure 4.7 Relative importance of generic skills according to postgraduate and undergraduate accounting students



4.2.7 Other important generic skills

Figure 4.8 Respondents agreeing that further generic skills could have been covered by the survey: postgraduate and undergraduate accounting students



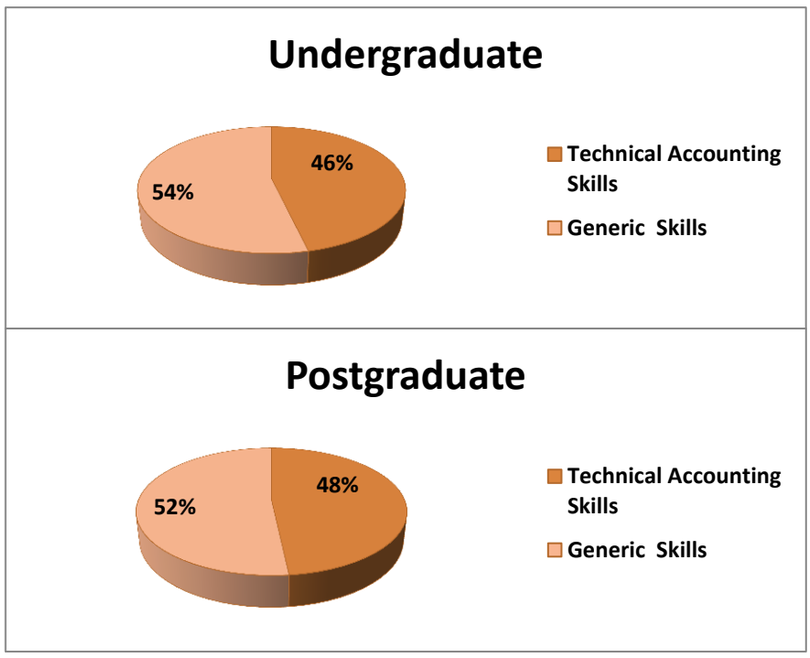
As was seen in for other groups surveyed, the majority of undergraduate students and the majority of postgraduate students at all three universities agreed that the questionnaire had covered all of the important generic skill sets (Figure 4.8). The postgraduate students were overwhelmingly likely to give this response, with only 5% of respondents from this group listing other generic skills as being important. Undergraduate students, however, were more likely than postgraduate students to list other skills, with 9% disagreeing that all generic skills had been mentioned by the questionnaire.

The only extra generic skills listed by the postgraduate accounting students were English language skills – a generic skill that was also listed by accountants in the workplace, which may reflect the comparative experience level of the postgraduate students (and accountants in the workplace) compared to that of undergraduate students. One undergraduate accounting student listed "reporting, language and organisation skills" as being an important generic skill, which could be interpreted as overlapping with the response of the postgraduate students.

Other generic skills listed by the undergraduate accounting students as being important and which could have been included in our survey were the ability to accept others' views, the ability to use modern skills, the ability to adapt practical skills, decision making skills, the ability to absorb information rapidly, the ability to complete work rapidly (mentioned by two survey respondents), and "the ability to act rapidly and thinking skills". This suggests that speed in a number of areas is considered important by the undergraduate students but not by the postgraduate students.

4.2.8 How generic skills compare in importance to technical accounting skills

Figure 4.9 Comparative importance of technical accounting skills vs. generic skills according to postgraduate and undergraduate accounting students



Overall, both groups of accounting students were more likely to consider the non-technical or generic skills as being more important than the technical accounting skills (Figure 4.9). Undergraduate students were fractionally more likely to consider generic or non-technical skills to be more important, with 54% giving this response, compared with 52% of postgraduate accounting students who gave this response. Postgraduate accounting students were more evenly split between those who rated technical accounting skills as being more important than non-technical or generic skills, with those putting a higher importance on non-technical skills having a majority of only 4%.

Overall, the mean number of accounting students who rated non-technical or generic skills as being more important than the technical accounting skills was 53%, while the mean percent of those who rated technical accounting skills as being more important was 47%. These results are somewhat unexpected considering the results of Q3, where a clear difference could be seen between the two groups of students regarding technical accounting skills, with postgraduate accounting students being far more likely than undergraduate students to state that they had used these both skills at university. One could therefore conclude that use of a certain skill at university is not a measure of how its relative importance will be perceived.

However, in Q6, both groups of students tended to disagree that technical accounting skills were important when the students were asked to rank the technical accounting skills against a range of disaggregated generic/non-technical skills, although neither group of students rated the technical accounting skills as being the least important. The results of Q6, therefore, are probably more reliable for predicting the results

found here. In contrast to the results shown here, the results of Q3 suggest that postgraduate accounting students were more likely than their undergraduate equivalents to consider that technical accounting skills were not necessary in order to get a job, even though the results of this survey question suggest that more postgraduate students than undergraduate students consider technical accounting skills to be more important than non-technical skills.

4.3 Male and female accounting students

4.3.1 *Skills considered important*

Overall, the majority of both male and female accounting students from the six main universities in Saudi Arabia tended to agree that all the skill sets in question were important (Figure 4.10). The skill set that both male and female accounting students were most likely to consider unimportant was the set of presentations skills: 4% of male accounting students disagreed somewhat, 1% disagreed and 5% disagreed strongly, while8 % of female accounting students disagreed somewhat, 5% disagreed and 3% disagreed strongly that presentations skills were important.

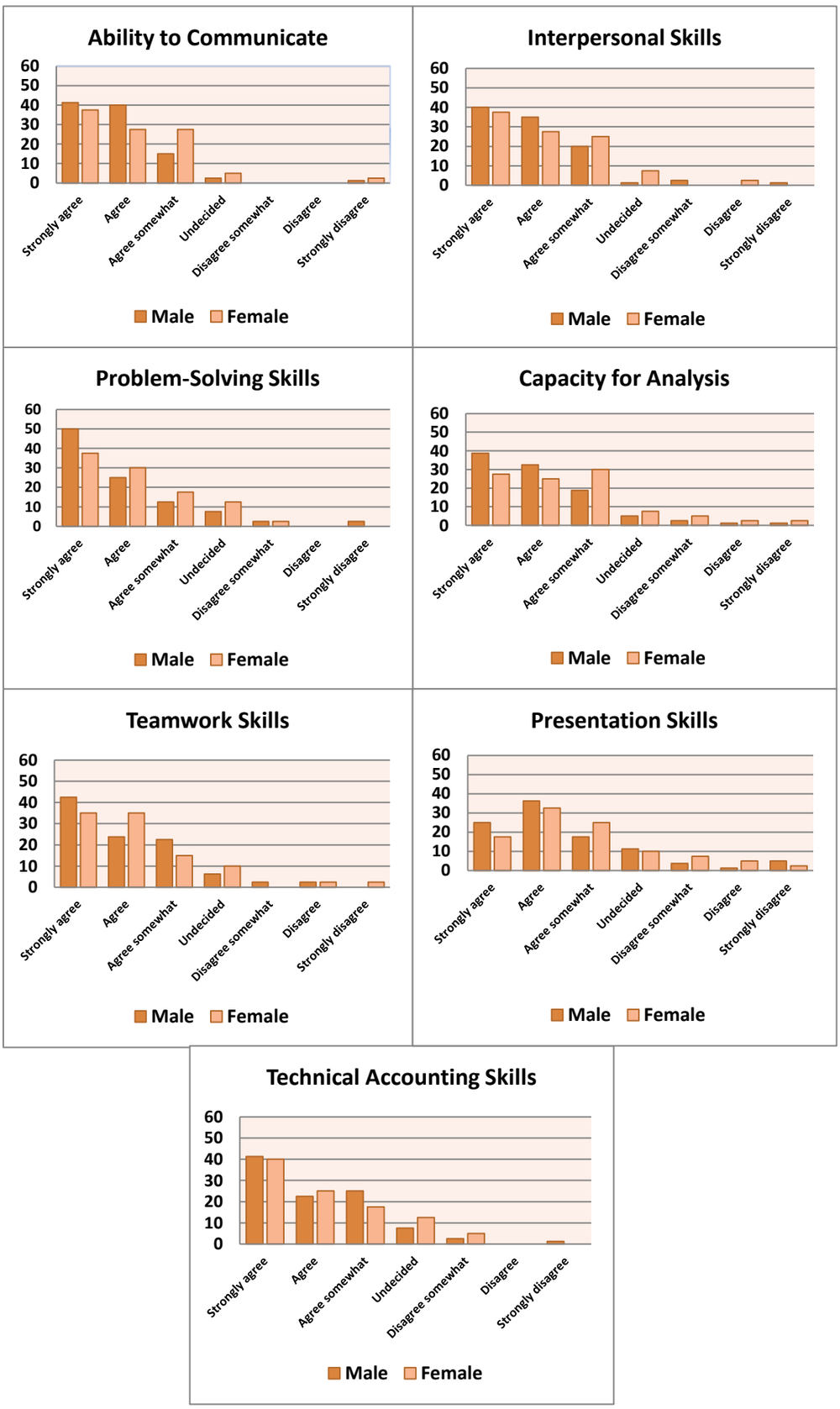
The skill set that both male and female accounting students were most likely to consider important was the ability communicate, with 1% of male students strongly disagreeing about the importance of this skill and 3% of female students strongly disagreed; however, 96% of male students agreed, at least to some degree, that this skill was important, as did 94% of their female counterparts. When the responses of male and female accounting students are compared, one noticeable trend was that male students were more likely to agree strongly that a skill was important compared to female accounting students:

- 41% agreed strongly that the ability to communicate was important, compared to 38% of female students;
- 40% agreed strongly that interpersonal skills were important, compared to 38% of female students;
- 50% agreed strongly that problem-solving skills were important, compared to 38% of female students;
- 39% agreed strongly that the capacity for analysis was important, compared to 28% of female students;
- 43% agreed strongly that teamwork skills were important, compared to 35% of female students;
- 41% agreed strongly that technical accounting skills were important, compared to 40% of female students;
- 25% agreed strongly that presentation skills were important, compared to 18% of female students.

Male accounting students were more likely to disagree that problem-solving skills were important: 3% of male students disagreed somewhat that these skills were

important and 3% strongly disagreed, compared to 3% of female students who disagreed somewhat (For more detailed results, see Appendix G).

Figure 4.10: Level of agreement about the important of skills by male and female accounting students



4.3.2 How well were the generic and technical accounting skills taught?

When male and female accounting students were surveyed about how well a number of skills were covered in their degree course, the responses of both groups tended to follow a normal distribution, with a slight skew towards the left, indicating an overall

impression that the skills were covered well (Figure 4.11). Male students were more likely to feel that technical accounting skills had not been covered adequately, with 11% giving a response of average, 9% poor and 4% very poor. Female students, on the other hand, were more likely to consider that presentation skills were not covered properly by their degree course, with 18% giving a response of average and 8% poor that their course covered these skills adequately.

Overall, these two areas – technical accounting skills and presentation skills – were the skills that both groups of students were most likely to consider as not having been covered adequately by their degree course. Interpersonal skills were those that male students were most likely to consider as having been covered adequately, with 18% considering coverage to have been exceptional, 31% considering it to have been excellent and 33% considering that these skills had been covered very well.

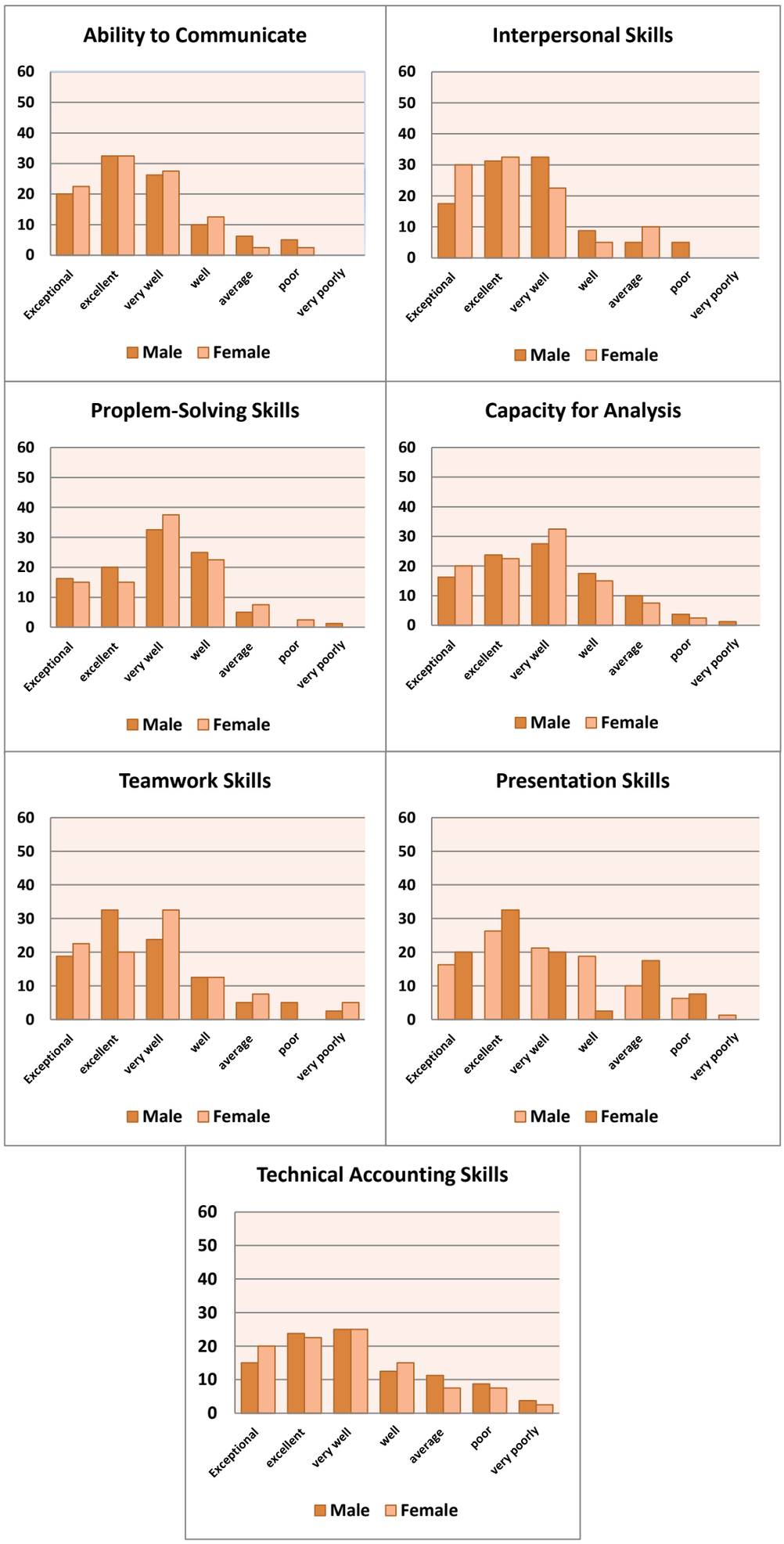
For female accounting students, interpersonal skills were also the most likely to be considered as having been covered well: 30% rated coverage as exceptional, 33% rated it as excellent and 23% considered that these skill had been covered very well. It was also interesting to note that a significant minority of both male and female accounting students considered problem-solving skills had been covered only well (i.e. only just adequately) by their degree course, 25% and 23% respectively. On the whole, the responses of both male and female accounting students tended to match very closely, with no salient differences between the two groups. One minor area of difference was that male accounting students were slightly less likely to that the capacity for analysis was covered excellently by their degree course: 10% considered that coverage had been average, 4% considered it to have been poor, 1% very poor and 18% thought it had only been well covered (rather than demonstrating any excellence or high performance, compared to female students (8% average, 3% poor, 0% very poorly and 15% well) (For more detailed results, see Appendix G).

4.3.3 How well were the generic and technical accounting skills used at university?

Overall, both groups of accounting students from the six main universities in Saudi Arabia tended to that they had used all skill sets to an excellent extent during their degree course, with a majority replying positively (i.e. responses of “exceptional”, “excellent” or “very well”) (Figure 4.12). Again, both male and female accounting students tended to match quite closely in their responses.

The most noticeable difference between male and female accounting students was in the area of technical accounting skills: female students were most likely to state that they used this skill very well (as opposed to giving other responses), with nearly half (48%) giving this response. Male accounting students, on the other hand, had a wider

Figure 4.11 How well generic skills were well taught to male and female accounting students



range of responses rather than clustering around this one response: for example, 25% that their use of technical accounting skills at university was excellent, 23% said they had used them well and 9% poorly, compared to 10%, 13% and 3% respectively for female students.

Another minor point of difference between the two groups could be seen in the area of interpersonal skills: female students were slightly more likely to agree that they used these skills at university with least some degree of merit, with 86% giving a positive response, compared to 83% of male accounting students. Male students were also more likely to give a negative response (i.e. "average", "poor" or "very poorly") as to whether they used the ability to communicate at university, with 12% of male students giving a negative response in comparison to 6% of female students; it should be noted here that 1% of the male students surveyed stated that they had used the ability to communicate very poorly, whereas this response was never recorded for female students.

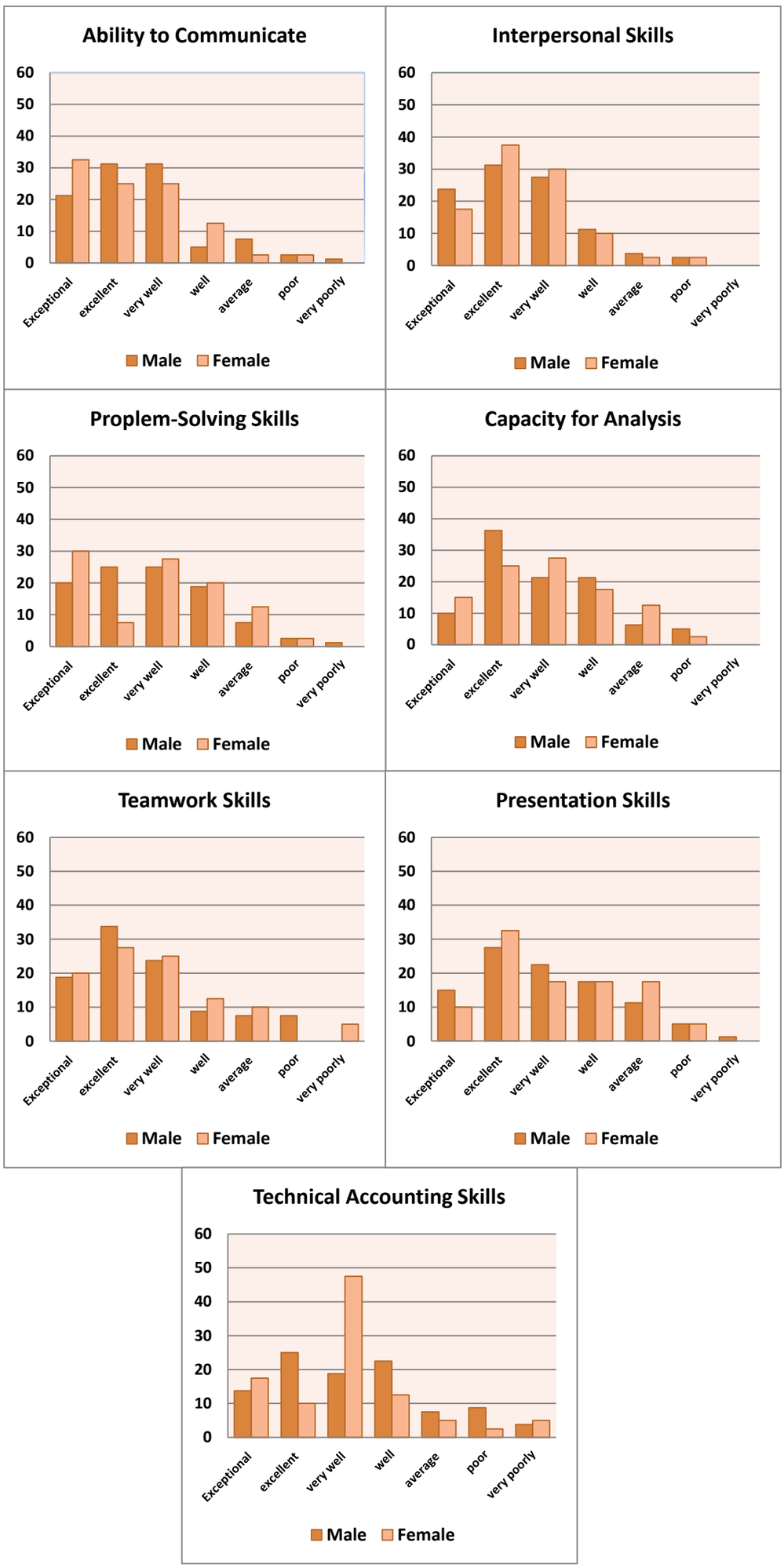
Female students were more likely than males to disagree to some degree that they used presentation skills at university: 23% gave a negative response, compared to 17% of males (For more detailed results, see Appendix G).

4.3.4 Specific skill levels required to get a good job

Interestingly, in all skill areas, a small number of students from both jobs felt that the skills were not needed in order to get a job, with female accounting students being more likely to consider a skill unnecessary:

- 5% considered that the ability to communicate was not necessary, compared to 1% of male students;
- 3% considered that interpersonal skills were not necessary with the same number of male students (3%) holding this perception;
- 3% considered that problem-solving skills were not necessary, compared to 1% of male students;
- 10% considered that the capacity for analysis was not necessary, compared to 1% of male students;
- 10% considered that teamwork skills were not necessary, compared to 6% of male students;
- 10% considered that technical accounting skills were not necessary, compared to 4% of male students;
- 5% considered that presentation skills were not necessary, compared to 4% of male students.

Figure 4.12 How the generic skills were used at university by male and female accounting students



Overall, male students were also more likely to respond that they did not know what level of skill was required in each area compared to females (Figure 4.13): 1% responded this way regarding the ability to communicate (as did 3% of female students, making this one of the few areas where female students appeared to be more unsure about the level of skill required in the workplace), 1% regarding problem-solving skills (vs. 0% for females), 4% for the capacity for analysis (vs. 5% of females, making this the skill area that both sets of students were most likely to be uncertain about), 1% regarding teamwork skills (vs. 0% for females), 4% regarding technical accounting skills (vs. 0% for females) and 1% for presentation skills (vs. 8% for females; this was the area that female students were most likely to be uncertain about).

The area that males felt would require the highest level of skill was the ability to communicate (33% felt that a high skill level was required and 31% considered that advanced skills were needed). Female students, however, seemed to consider that interpersonal skills demanded a higher skill level, with 40% believing that a high skill was needed and 18% for an advanced level (For more detailed results, see Appendix G).

4.3.5 Current generic skill levels

On the whole, both male and female students were most likely to consider that they had an intermediate level of skills, with this being the most frequent response by both groups of accounting students in all skill areas of interest (Figure 4.14). The peak appearing for this response was very pronounced: for example, 44% of male students felt that they had an intermediate level of problem-solving skills and 39% felt that they had an intermediate level of technical accounting skills, and 68% of female students considering that they had an intermediate level of problem-solving skills, 60% of considering that they had an intermediate capacity for analysis, 50% considering that they had intermediate technical accounting skills and 50% considering that they had intermediate presentation skills. Incidentally, this also indicates that female accounting students were more likely than their male counterparts to consider their skills to be at an intermediate level.

The one skill area where both groups of accounting students were more likely to rate their skills as being at a higher level (i.e. at a high level or an advanced level) was for interpersonal skills: 41% of male students and 48% of female students felt that they had a high level of these skills, and 16% of male students and 13% of female students felt that they had an advanced level.

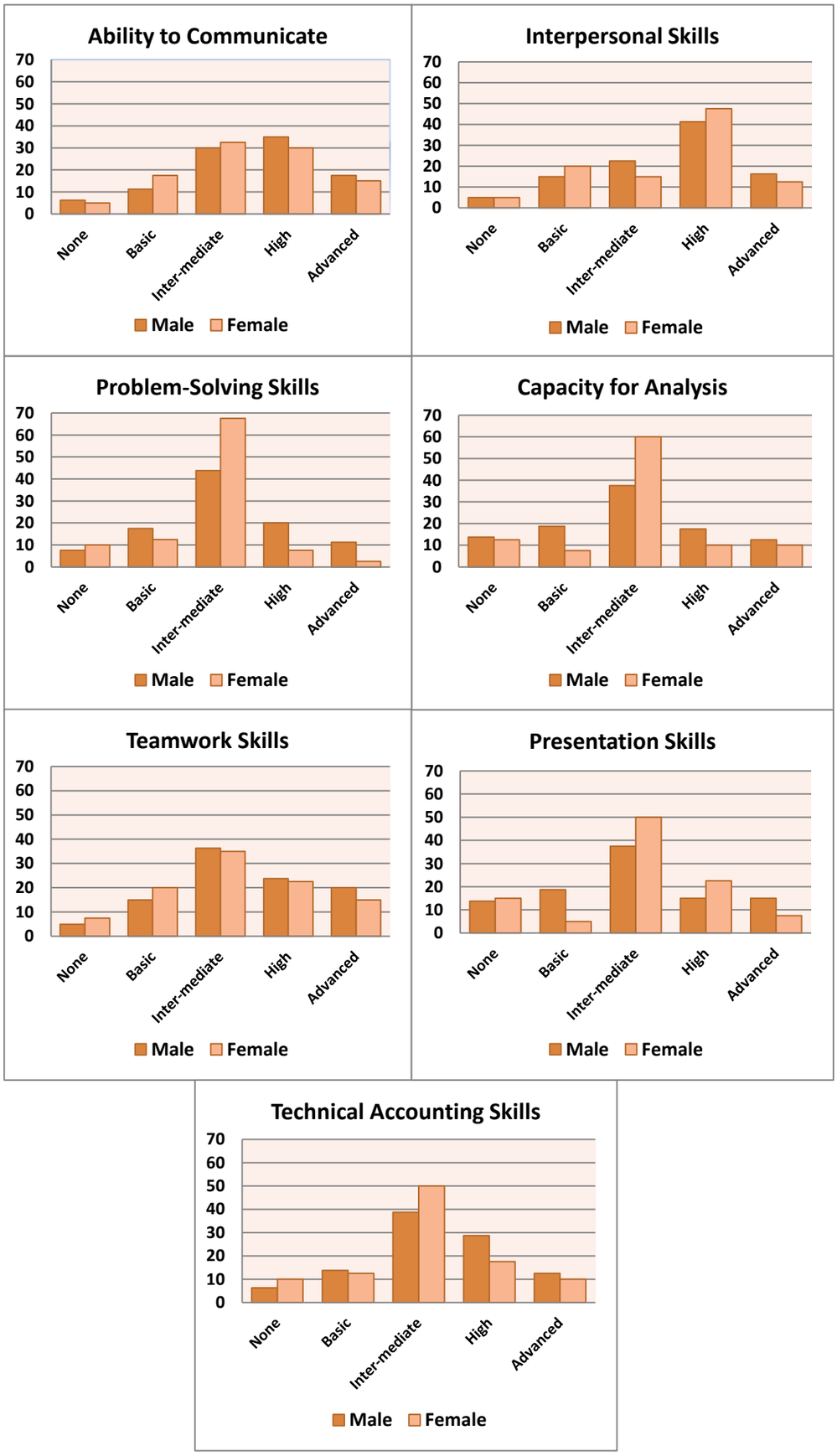
The areas where both male and female students were most likely to rate themselves as having no skills were the capacity for analysis, with 14% of males and 13% of females giving this response, and presentation skills, with 14% of males feeling that

Figure 4.13 The skill levels needed to get a job according to male and female accounting students

they were unskilled in this area and 15% of females giving this response.

Male accountants were more likely than female student to rate their skills as being at an advanced level in all skill areas, with the greatest difference between males and females being seen in the area of problem-solving skills, where 11% of males felt that their skills were at an advanced level compared with only 3% of females (For more detailed results, see Appendix G).

Figure 4.14 Skill level of male and female accounting students



4.3.6 How the generic and technical accounting skills stack up in their degree of importance relative to each other

When male and female accounting students from the six main Saudi Arabian universities were asked to rank the different skill sets according to importance (Figure 4.15), one very striking result stood out: for both groups, presentation skills were the most likely to be rated as being of lower importance, with 48% of male students and 48% of female students stating that this skill was least important (7), 20% of males and 23% of females rating it as less important (6), and 14% of males and 15% of females rating it as not very important (5).

Interestingly, technical accounting skills showed a similar pattern, albeit not as pronounced, with 14% of males and 8% of females rating it as least important (7), 25% of males and 25% of females rating it as less important (6) and 21% of males and 18% of females rating it as not very important (5), making those who gave a negative response regarding these skills the majority for both groups. Female students tended to downplay the importance of the capacity for analysis compared to their male counterparts, with 20% rating it as least important (7), 3% rating it as less important (6) and 35% rating it as not very important (5), compared to 10%, 16% and 11% of male students respectively.

Male students, however, were more likely than females to consider technical accounting skills as being unimportant as described above, with 60% giving a negative response compared to 51% of female students. For both male and female accounting students, the skill that tended to be rated as being the most important was the ability to communicate, with 75% of males and 76% of females giving a positive response (i.e. “most important (1)”, “very important (2)” or “important (3)”). Female accounting students were slightly more likely than their male counterparts to consider teamwork skills to be important, with 46% of female students responding positively regarding these skills, compared to 37% of male students.

Male students were more likely to rate problem-solving skills as being important compared to female students, with 49% responding positively and 20% being uncertain, compared to 43% and 25% respectively for females (For more detailed results, see Appendix G).

The order in which the two groups ranked the generic and technical accounting skills (Figure 4.16) agreed regarding the most important skills (ability to communicate) and the least important skills (presentation skills) but the rankings differed for all other skills. For male students, the second most important skill was capacity for analysis, followed by interpersonal skills and problem solving skills. These were followed by technical skills and teamwork skills, with presentation skills being ranked as least important as described above. For female students, interpersonal skills were placed

second, followed by capacity for analysis and problem solving skills. After these came technical accounting skills, with presentation skills and teamwork skills sharing the bottom rank.

Figure 4.15 Relative importance of skills according to male and female accounting students

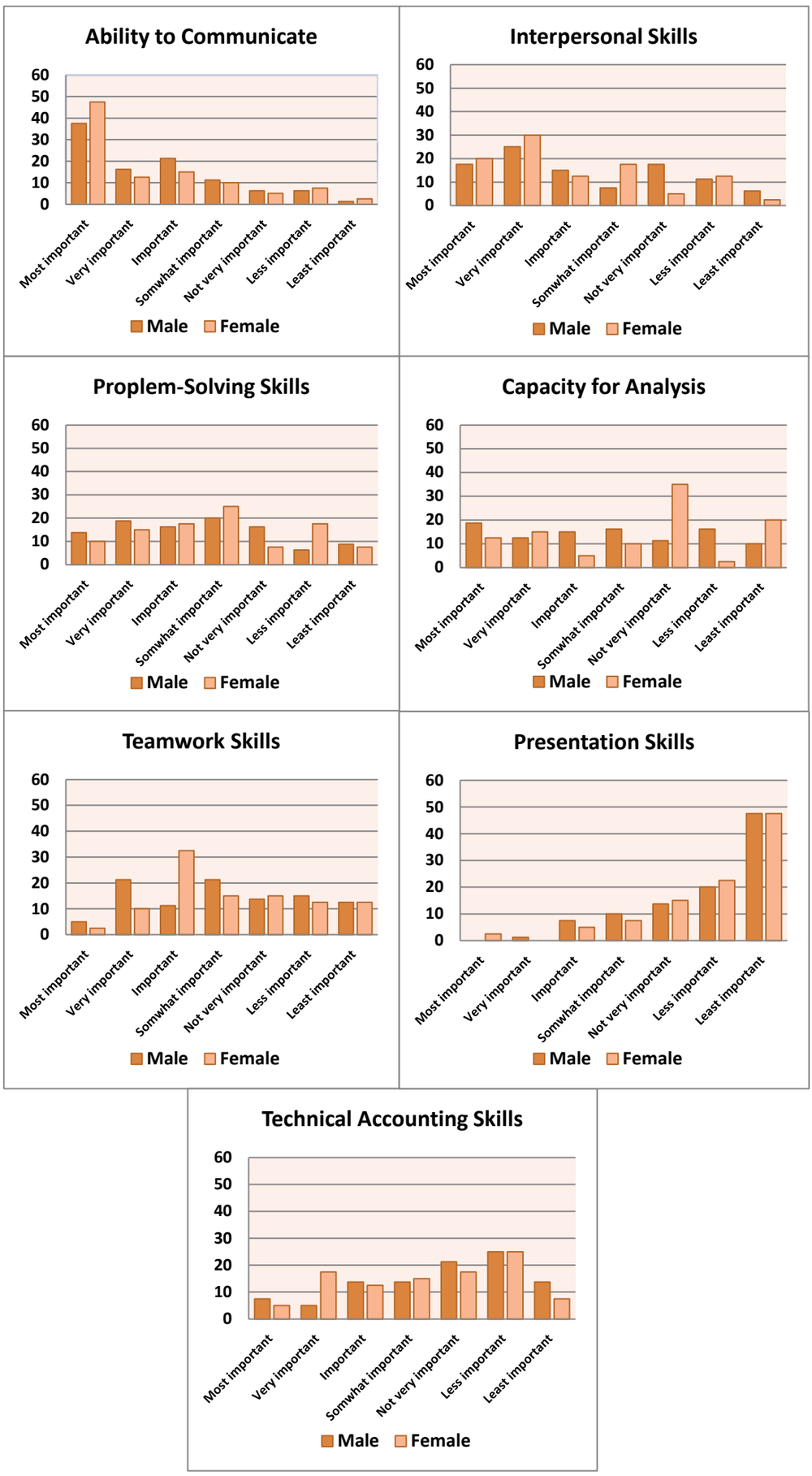
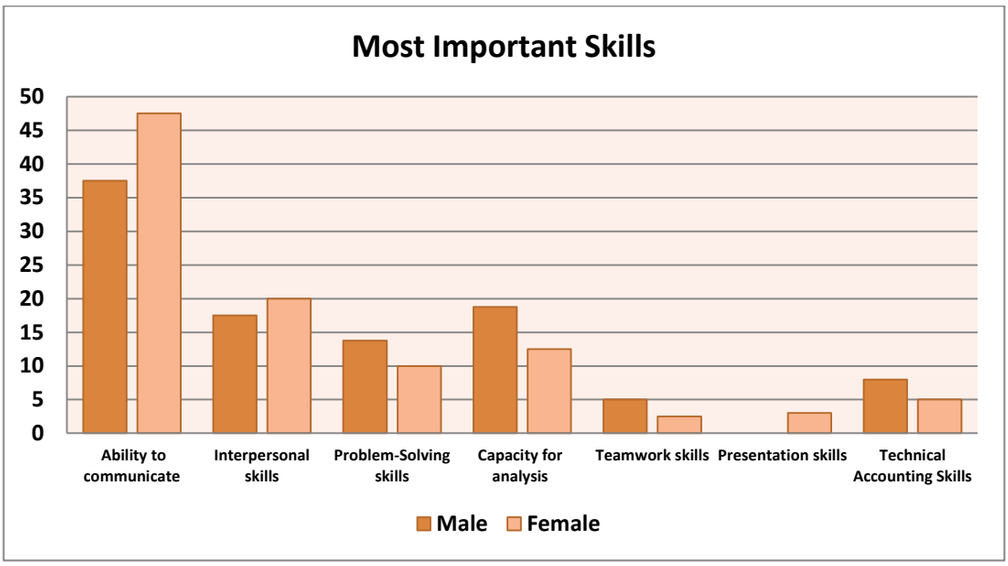
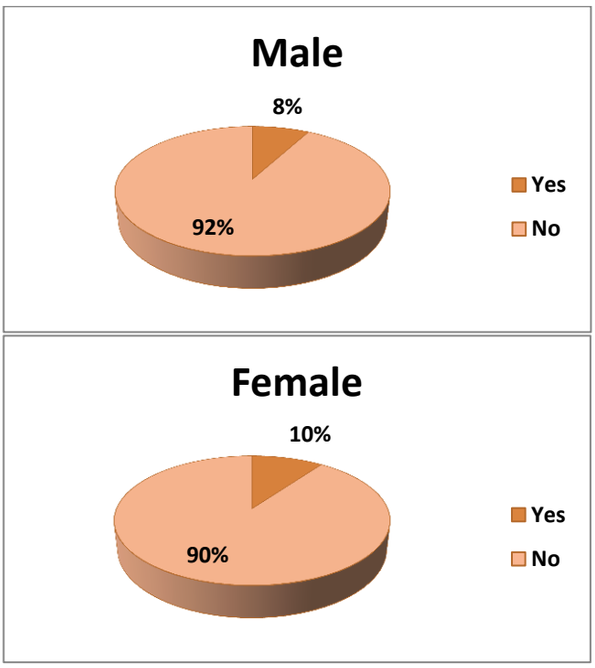


Figure 4.16 Ranking of the skills in order of importance



4.3.7 Other important generic skills

Figure 4.17 Respondents agreeing that further generic skills could have been covered by the survey: male and female accounting students



Most male and female accounting students considered that the survey questionnaire had covered all of the important generic skills (Figure 4.17), with 92% of male accounting students and 90% of female accounting students responding in this way. However, 8% of male students and 10% of female students listed a few other generic skills that could be considered important. Interestingly, the responses of the male students are identical to the responses of accounting students as a whole (see the section 5.7 comparing accountant and accounting students).

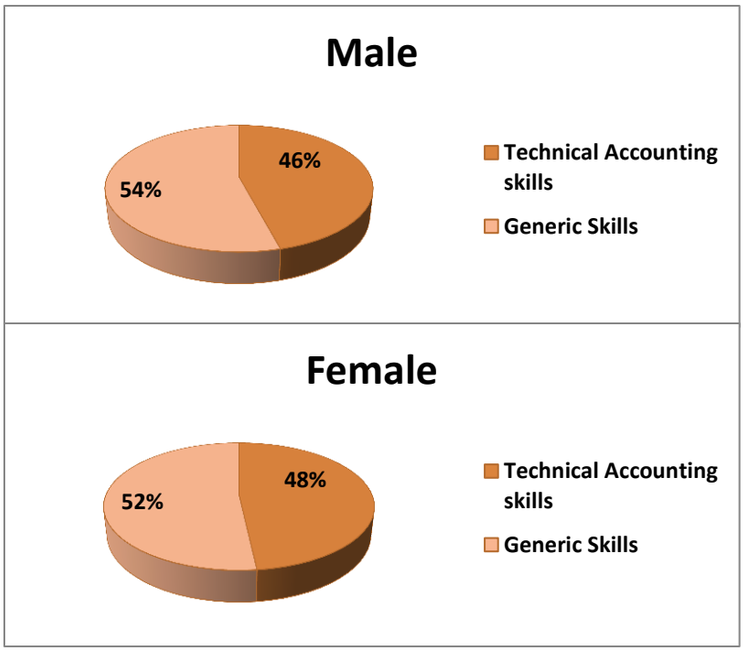
The additional skills mentioned by the male accounting students who thought other generic skills should have been covered by the questionnaire mentioned a wider range of skills than those mentioned by the female accounting students. This may, however, be explained by the sample size. Furthermore, the responses of the two groups did

not overlap, although respondents from both groups mentioned speed as being important, although in different area: one male accounting student listed the ability to absorb information rapidly as being important, while two female accounting students listed the ability to complete work rapidly as being important and one female accounting student listing "the ability to act rapidly and thinking skills".

The only other extra generic skills listed by the female accounting students were English language skills, which were also mentioned by accountants in the workplace (see previous section). Male accounting students listed the ability to accept others' views; reporting, language and organising skills; the ability to use modern skills; the ability to adapt with practical skills and decision making skills as being important generic skills for accountants.

4.3.8 How generic skills compare in importance to technical accounting skills

Figure 4.18 Comparative importance of technical accounting skills vs. generic skills according to male and female accounting students



Unlike many the other groups surveyed as part of this research, male and female accounting students at the six main universities in Saudi Arabia tended to rate the generic or non-technical skills as being more important than technical accounting skills (Figure 4.18), with 54% of male accounting students placing greater importance on non-technical skills and 52% of female students. When these two groups of accounting students are averaged, this gives a mean of 53% who consider the non-technical/generic skills as being more important than the technical accounting skills.

Male accounting students were more likely than female accounting students to rate non-technical skills as being more important. However, it must be noted that the tendency to rate the non-technical skills over the technical skill is not very pronounced, suggesting that a large proportion, albeit a minority, of both groups of

accounting students consider the technical accounting skills to be more important than non-technical skills. Interestingly, male accounting students were more likely than female students to consider that technical accounting skills had not been covered adequately by their degree course (see Q2), which may have influenced their perception of the technical accounting skills relative to the full set of generic skills. Male accounting students were also more likely than their female counterparts to consider technical accounting skills as unimportant when asked to rank the technical accounting skills against the disaggregated generic skills, although technical accounting skills did not appear to be considered as the least important skill set by either male or female accounting students during the ranking exercise; presentation skills was ranked below technical accounting skills by both groups of accounting students. It is interesting but unsurprising to note that male and female accounting students tended to respond in a similar manner regarding whether technical accounting skills are more important than generic skills, as the response patterns of these two groups were noticeably similar throughout the survey.

4.4 Government and non-government workplaces

4.4.1 Skills considered important

The researcher intended to use government and non-government organization as subsamples in this study to discover the skills accountants actually have and their perceived need for the important generic and technical accounting skills in the workplace and what the differences between them are, as government organisations obtain power from the government whereas non-government organizations are supported by private owners. The research aimed to explore which kind of organisation was really concerned about generic and technical accounting skills by investigating the perceptions of their accountants. In general, accountants working for government organisations and non-government organisations tended to agree that most of the generic and technical accounting skills of interest were important, and their responses matched each other very closely (Figure 4.19).

The skills about which accountants from the two types of organisation tended to differ most were problem-solving skills. Although the majority of accountants from both types of organisations gave a positive response (i.e. a response of “agree strongly”, “agree” or “agree somewhat”) as to whether these skills were important (86% of accountants from government organisations gave a positive response and 86% of accountants at non-government organisations), accountants employed by government organisations were more likely to respond negatively: 7% disagreed somewhat that problem-solving skills were important and 7% disagreed strongly about the importance of these skills. In contrast, only 3% of accountants at non-

government disagreed somewhat about the importance of problem-solving skills and 11% were undecided as to its importance.

The capacity for analysis was another skill area about which differences could be seen in the perceptions of accountants from the two types of organisation. Although, as for most of the skill sets, accountants from both groups gave positive responses regarding the importance of the capacity for analysis (87% of accountants from non-government organisations and 93% of their counterparts from government organisations), accountants from government organisations were again more likely to respond negatively regarding this skill area: 7% disagreed that this skill was important; by contrast, 8% of their counterparts at non-government only disagreed somewhat and 5% remained undecided. This also suggests that accountants working for government organisations also tend to hold a wider range of opinions regarding this skill set, and it was interesting to note that none of the accountants working for government organisations was undecided regarding this skill. The skills that appeared to be ranked as the most important by accountants at non-government organisations were interpersonal skills (96% gave a positive response, 3% were undecided and only 3% disagreed somewhat).

The skill set that accountants at government organisations seemed to perceive as being the most important was the capacity for analysis, as described above (For more detailed results, see Appendix H).

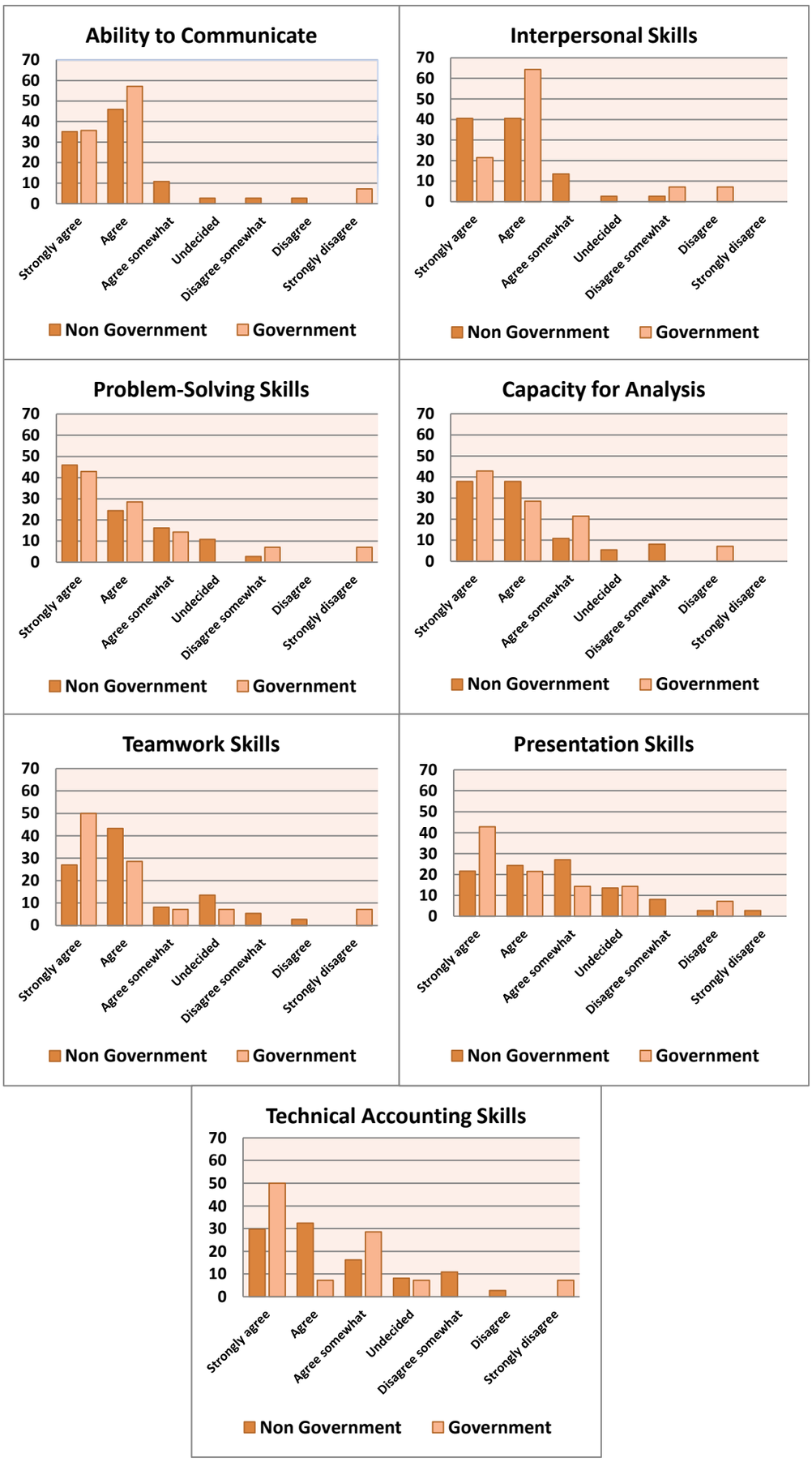
4.4.2 How well were the generic and technical accounting skills taught?

On the whole, accountants employed by both types of organisation tended to state that the full range of skills had been covered with some degree of merit by their degree courses (Figure 4.20). Interestingly, however, a significant minority of respondents from both groups did not feel that technical accounting skills had been properly addressed: 5% of accountants from non-government organisations rated coverage as average, 8% rated it as poor and 5% rated it as very poor, while 21% of their counterparts at government organisations rated it as average and 7% rated it as very poor. Alongside this, 22% of accountants at non-government organisations and 7% of accountants at government organisations stated that were as to whether their degree course had covered these skills only adequately (a response of “well”).

The skill set about which accountants from the two groups disagreed most markedly was the ability to communicate: although a similar number of accountants from both groups gave a positive response regarding this skill set (i.e. they atated that coverage had been exceptional, excellent or very good), specifically 76% of accountants from non-government organisations and 72% of their counterparts employed by government organisations, only 5% of accountants from non-government

organisations rated coverage as average and 3% rated it as poor, with the remainder (16%) rated it as being only well covered; those at government organisations were more likely to rate coverage as having been poor (14%) with the remaining 14% stating that this skill had been covered only adequately (well) by their degree course.

Figure 4.19: level of agreement about the important of skills by accountants at government and non-government organisations



Perceptions regarding how well interpersonal skills had been covered showed a similar pattern, with 73% of accountants at non-government organisations responding positively and 19% considering them to have been covered well (vs. 5% rating coverage as average and 3% as poor), while 79% of accountants employed by government organisations and 7% rated coverage as well, with 14% rated it as average, again showing that those working at government organisations were more likely to give a negative response regarding this skill area than those at non-government organisations.

However, accountants at non-government organisations were more likely to respond negatively (i.e. “average”, “poor” or “very poorly”) that presentation skills had been covered adequately by their degree course: 28% responded negatively in contrast to 14% of accountants at government organisations; those at government organisations were more likely to state that it had been well covered (29%), meaning that similar numbers from both groups gave positive responses (For more detailed results, see Appendix H).

4.4.3 How well were the generic and technical accounting skills used at university?

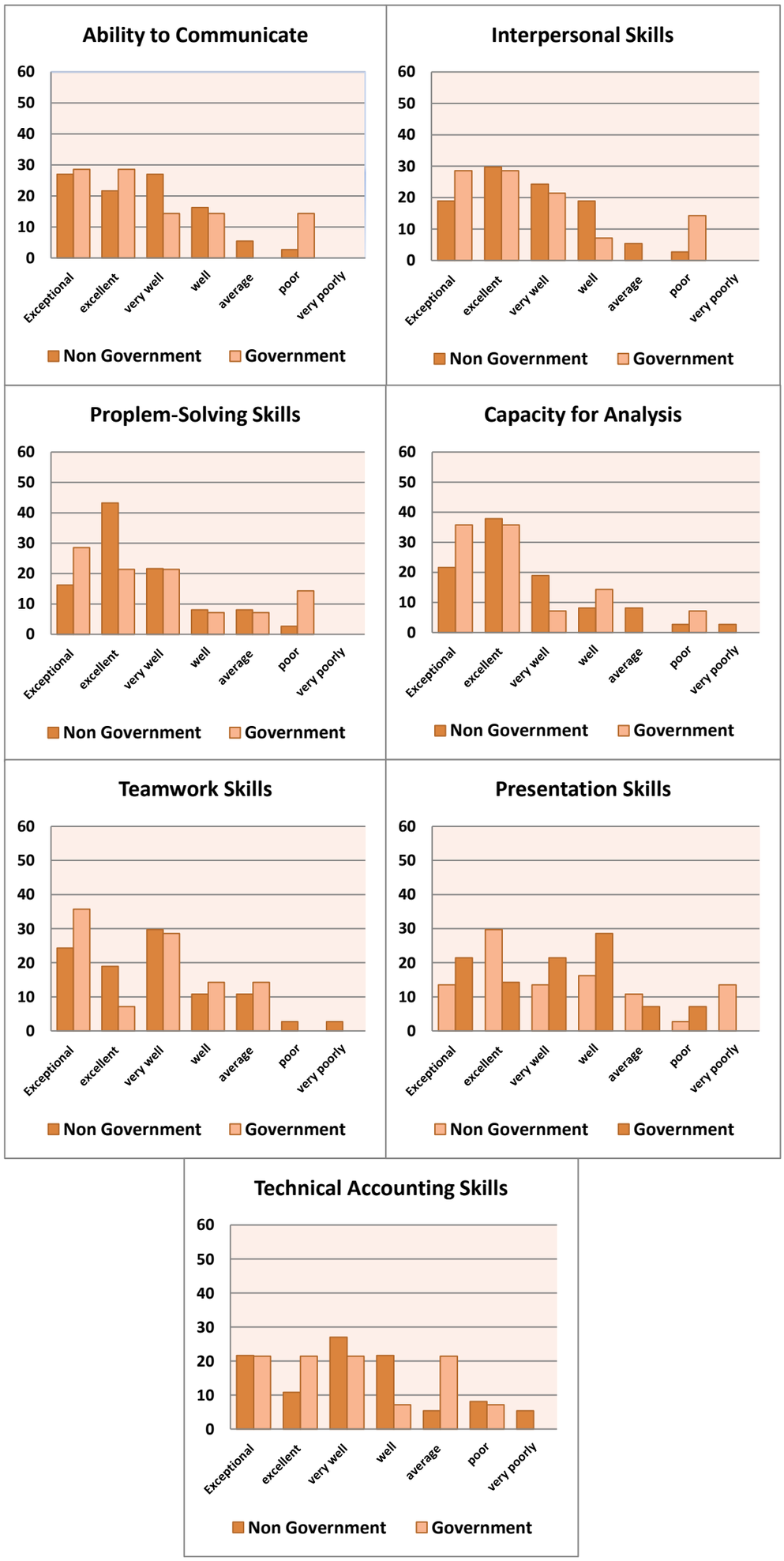
Overall, the responses given by accountants working at both government and non-government organisations were more or less similar, when they were surveyed as to whether they used certain skills at university (Figure 4.21).

However, a difference between the two groups could be seen clearly regarding teamwork skills. While the majority of respondents from both groups tended to that state they had used these skills at university with some degree of merit, accountants employed by government organisations were more likely to give a negative response: 21% said their use had been average, whereas 8% of their counterparts gave a negative response (5% said their use had been average and 3% said their use had been poor).

In this area of teamwork skills, the accountants giving positive responses differed between the two groups as to the degree of merit to which they used these skills: 36% of accountants at government organisations that they had used these skills exceptionally well (vs. 11% of their counterparts at non-government organisations) while accountants at non-government organisations were more likely to say they had used them very well (38% vs. 7% of accountants at government organisations giving this response).

Teamwork skills were, however the skill set that accountants at non-government organisations were most likely to have used at university, with 79% giving a positive

Figure 4.20 How well generic skills were taught to accountants at government and non-government organisations



response compared to 64% of their counterparts at government organisations. For accountants at government organisations, no one skill set stood out as being the most likely to have been used at university, but the areas that were least likely to have been used at university by this group of accountants were presentation skills (64% responded positively, 14% said they had used them well, 14% said their use had been average and 7% said their use had been poor) and teamwork skills (64% responded positively, 14% said they had used them well and 21% said their use had been average). For those at non-government organisations, the skills that were least likely to have been used at university by the survey respondents were interpersonal skills (67% gave a positive response, 16% said they had used them well and a further 16% said their use had been average) and technical accounting skills (71% gave a positive response, 14% had used them well, 11% said their use had been average and 5% said their use had been poor) (For more detailed results, see Appendix H).

4.4.4 Specific skill levels required to get a good job

Overall, most accountants from both groups felt that all the skills were required in their workplace at a basic level, at least (Figure 4.22). However, a few accountants working at non-government organisations felt that certain skills were not needed: 5% of accountants at non-government organisations felt that technical accounting skills were not needed in their workplace, 5% felt that presentation skills were not needed and 3% felt that interpersonal skills were not needed at any level. In contrast, all accountants working for government organisations felt that all skill areas were required at some level (i.e. no responses of "none" were recorded).

Accountants at government organisations felt that the highest level of skill was needed in the ability to communicate: 50% of respondents felt that an advanced ability to communicate was needed at their workplace and 21% felt that a high level was needed. This contrasts with the perceptions of accountants at non-government organisations, 27% of whom felt that these skills were needed at an advanced level and 35% felt they were needed at a high level.

Capacity for analysis seemed to be another skill area that accountants at government organisations perceived as being required at a high level: all respondents considered that this skill was required at a more than basic level, with 43% stating that advanced level of this skill was needed, 14% stating that a high level was needed and 43% stating that an intermediate level was needed.

Accountants at non-government organisations felt that the highest level of skill was needed in the area of interpersonal skills, with 24% perceiving that an advanced level of skill was needed and 43% considering that a high level was needed.

Accountants at government organisations, on the other hand did not place as much emphasis on interpersonal skills compared to their counterparts at non-government

organisations, with 21% believing that these skills were needed at an advanced level and 29% believing that they were needed at a high level (For more detailed results, see Appendix H).

Figure 4.21 How the generic skills were used at university by accountants at government and non-government organisations

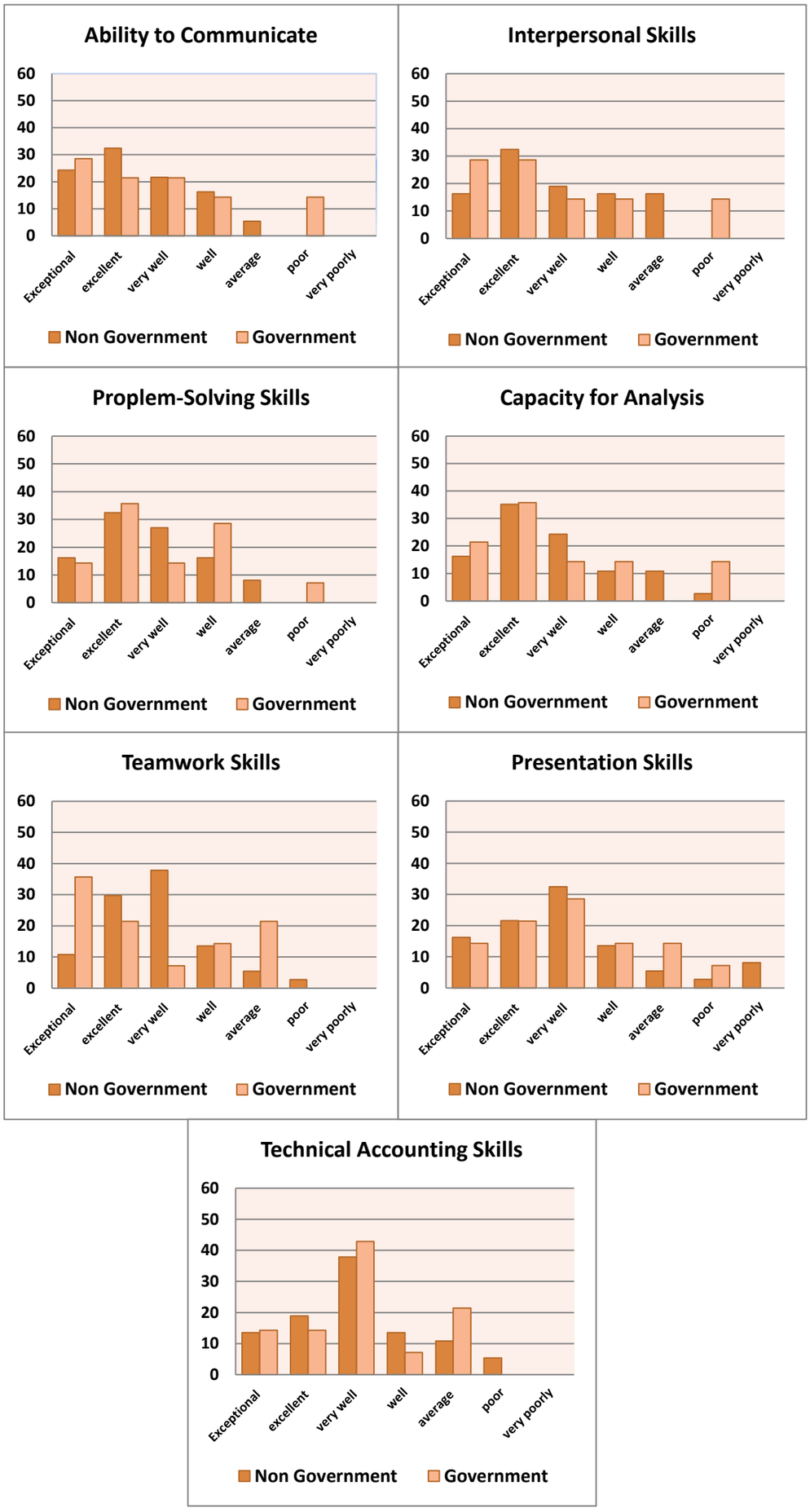
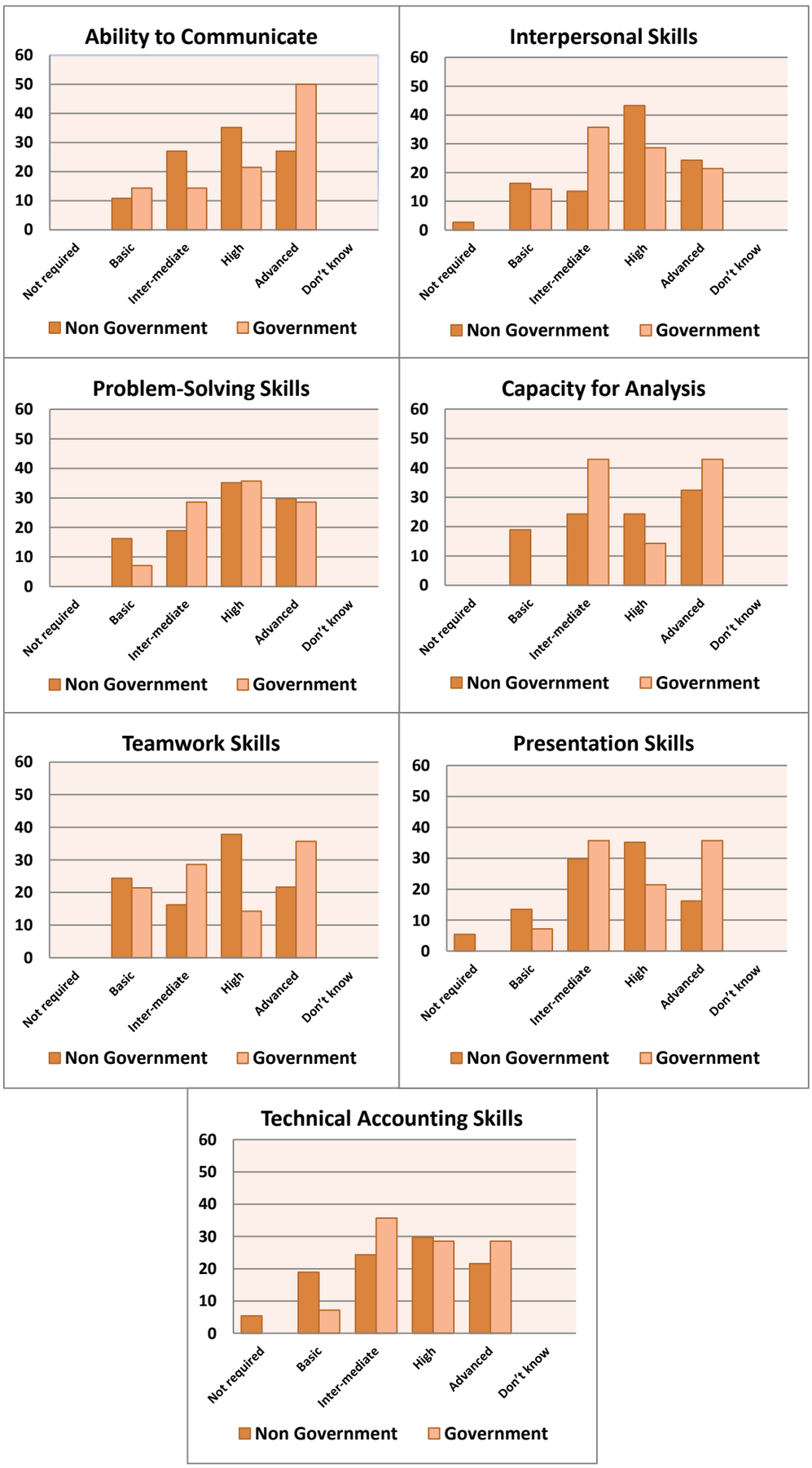


Figure 4.22 The skill levels needed to get a job according to accountants at government and non-government organisations



4.4.5 Current generic skill levels

In general, accountants at non-government organisations tended to rate their skill levels as being at a lower level than did accountants at government organisations

(Figure 4.23). Consistently, across all skill areas, a lower percentage of accountants at non-government organisations rated themselves as having an advanced level of skill compared to those at government organisations:

- 11% considered that they had an advanced ability to communicate (vs. 21% of accountants at government organisations),
- 16% considered that they had advanced interpersonal skills (vs. 29% at government organisations),
- 16% considered that they had advanced problem-solving skills (vs. 21% at government organisations),
- 14% considered that they had an advanced capacity for analysis (vs. 14% at government organisations; however, 50% of accountants at government organisations believed that they had a high level of this skill compared with 38% of those from non-government organisations, again suggesting that accountants from non-government organisations tend to rate their skills as being at a lower level compared to their government counterparts),
- 22% considered that they had an advanced level of teamwork skills (vs. 43% at government organisations),
- 14% believed that they had advanced technical accounting skills (vs. 29% at government organisations), and
- 19% believed that they had advanced presentation skills (vs. 29% at government organisations).

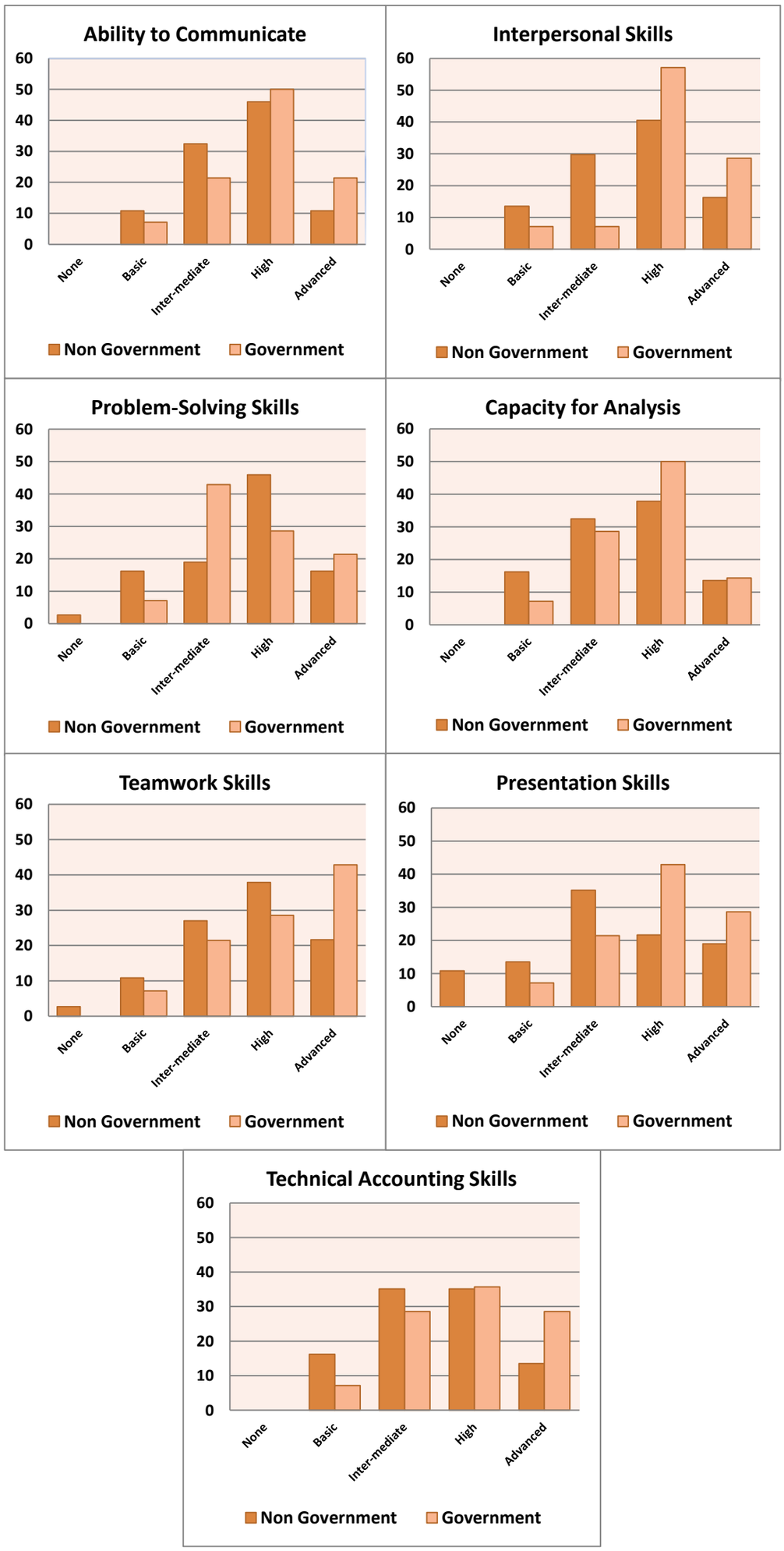
Furthermore, some accountants working at non-government organisations stated that they had no skills in certain areas (11% said that they had no presentation skills, 3% said they had no problem-solving skills and 3% said that they had no teamwork skills). However, none accountants working at government organisations stated that that they were lacking in any area of skill, with all respondents stating that they had at least a basic level of skill in all areas. Problem-solving skills were those that accountants at non-government organisations were more likely to perceive themselves as having at a high (46%) or advanced level (16%), meaning that overall, these accountants seemed to feel that this was their area of strength.

The area of strength for accountant at government areas (i.e. the area where they were most likely to rate themselves as having a high or advanced level of skill) was teamwork skills, with 29% stating that they had a high level of skill and 43% stating that they had an advanced level (For more detailed results, see Appendix H).

4.4.6 How the generic and technical accounting skills stack up in their degree of importance relative to each other

Overall, presentation skills tended to be rated as being the least important by both groups of accountants: 24% of accountants at non-government organisations rated

Figure 4.23 Skill level of accountants at government and non-government organisations



these as less important (6) and 46% rated them as least important (7)t, and 14% of accountants at government organisations rated them as not very important (5), 7% rated them as less important (6) and 43% rated them as least important (7) (Figure 4.24). The high percentage of respondents from both groups that disagreed that this skill was important was the most striking match between the two groups; in other skill areas, both groups tended to express a wider range of opinions.

One interesting point of difference between the two groups of accountants surveyed can be seen in the area of problem-solving skills, where nearly half of the accountants from government organisations (43%) were somewhat undecided as to the importance of this skill; in contrast, only 11% of accountants at non-government organisations rated them as somewhat important (4), with the remainder being split approximately between those who considered this skill to be important (i.e. responses of "most important (1)", "very important (2)" or "important (3)";55%) and those who did not (36%), with a significant bias towards considering problem-solving skills to be important.

The skills that accountants at government organisations were more likely to consider important were the ability to communicate (50% rated this skill as most important (1) and 7% rated it as important (3) that this skill was important) and interpersonal skills (7% rated it as most important (1), 21% rated it as very important (2) and 29% rated it as important (3)). The skill that accountants at non-government organisations were more likely to consider important was the ability to communicate (27% rated this skill set as most important (1), 22% rated this skill set as very important (2) and 14% rated this skill set as important (3) that this skill was important). Although the ability to communicate was rated as being of greatest importance by both groups of accountants, those at government organisations tended to be more polarised in this area, with no respondents rated this skill set as somewhat important (4) (vs. 19% of their counterparts at non-government organisations), 21% rated this skill set as not very important (5) (vs. 11%), 7% rated this skill set as less important (6) (vs. 5%) and 14% rated this skill set as least important (7) (vs. 3%) that this skill was important (For more detailed results, see Appendix H).

Figure 4.25 shows how the two groups ranked the full set of generic and technical accounting skills. Once again, both groups agreed that the ability to communicate was the most important skill set. However, for the other skills, the two groups differed, sometimes greatly. For accountants at government organisations, the second most important skills were technical skills and the capacity for analysis. These were followed by interpersonal skills and presentation skills, more or less equally, with teamwork skills and problem solving skills ranking equally as least important. For those working at non-government organisations, the second most important skills were the capacity for analysis and problem solving skills. After these, interpersonal

skills, teamwork skills and presentation skills were ranked more or less equally, with technical skills being ranked as least important.

Figure 4.24 Relative importance of generic skills according to accountants at government and non-government organisations

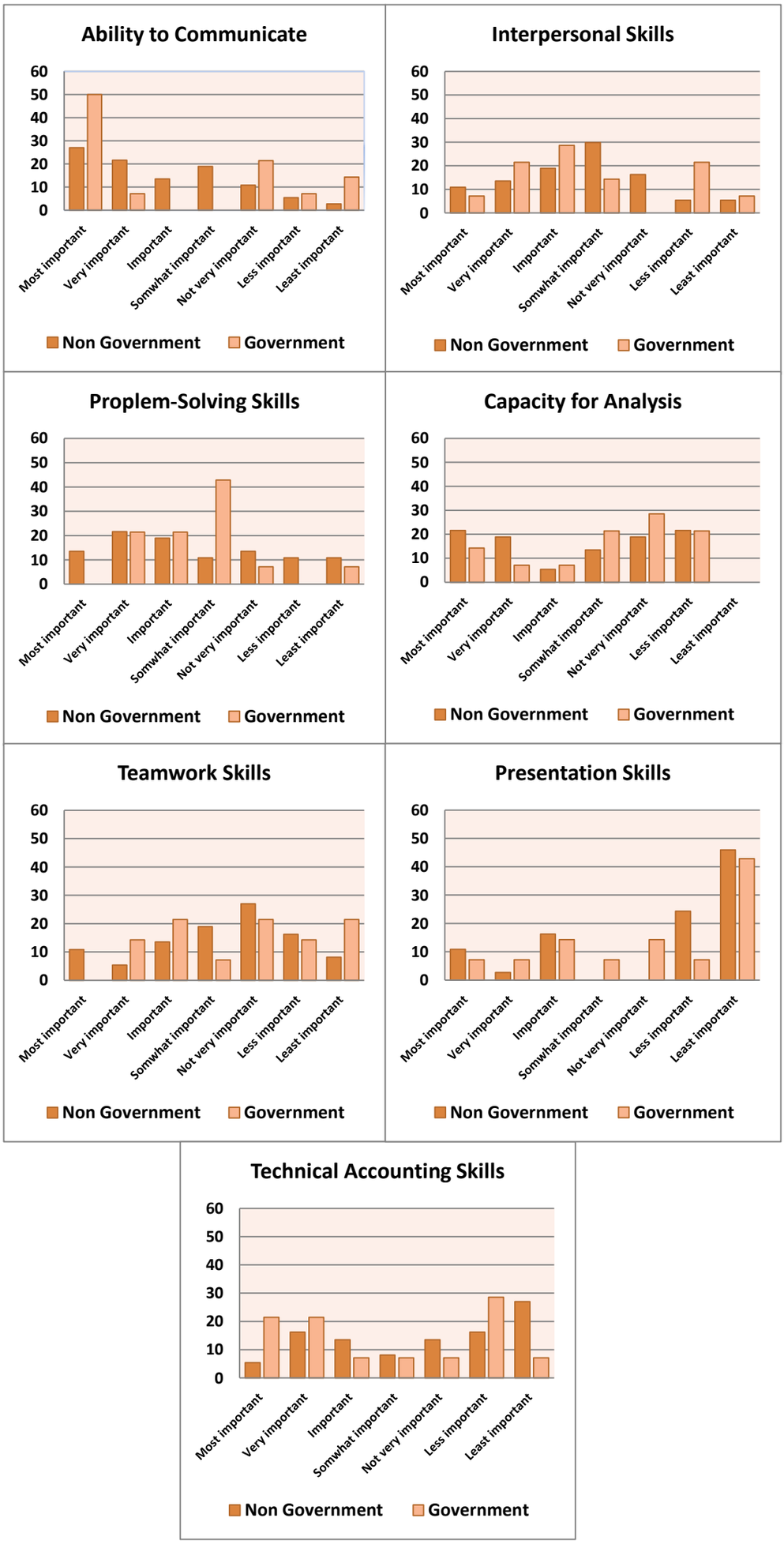
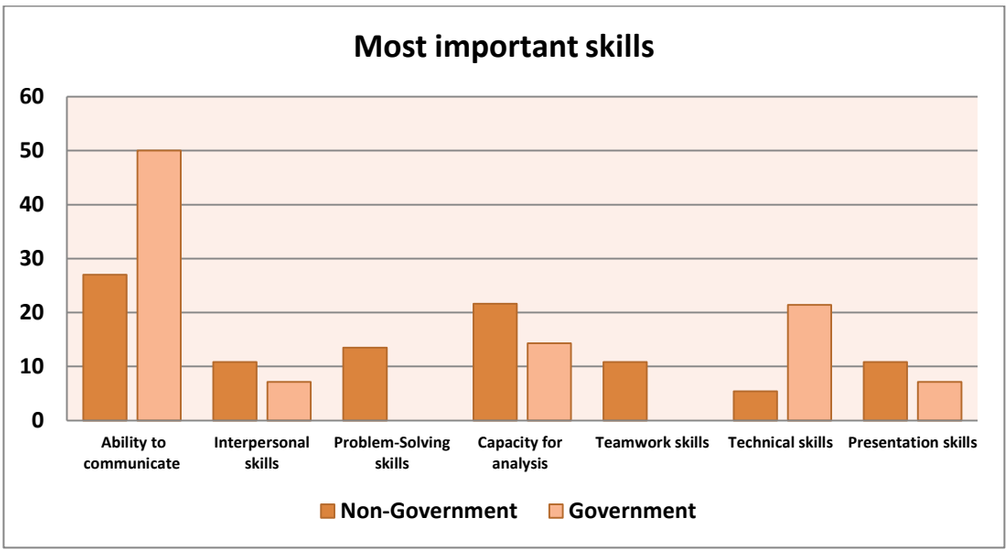
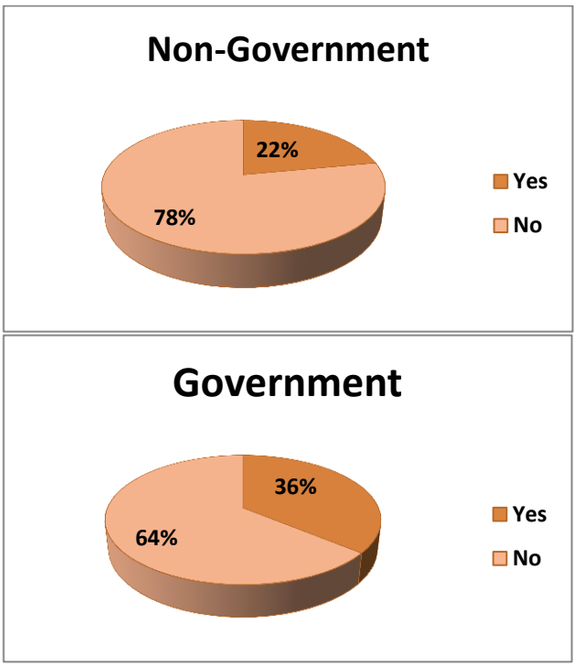


Figure 4.25 Ranking of the skills in order of importance



4.4.7 Other important generic skills

Figure 4.26 Respondents agreeing that further generic skills could have been covered by the survey: accountants at non-government and government organisations

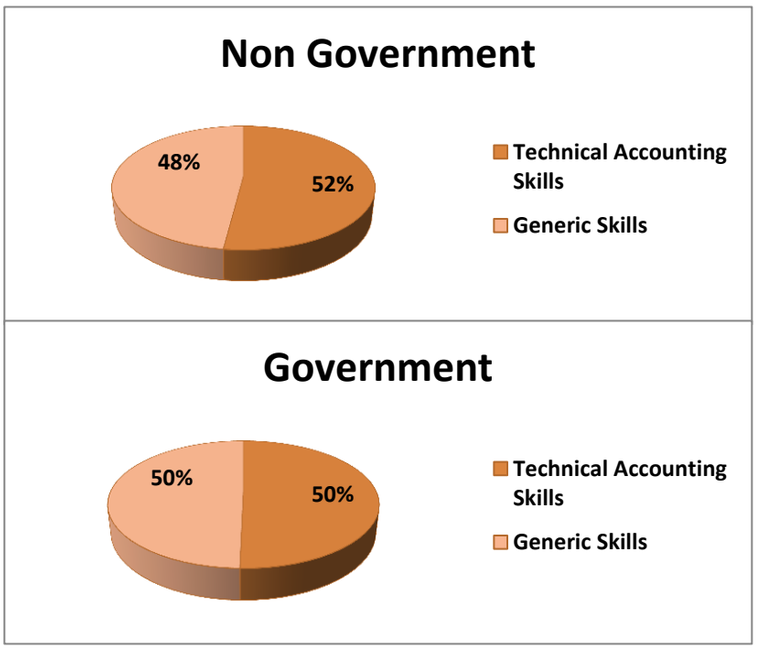


Accountants from government organisations were more likely than their counterparts at non-government organisations to consider that the survey could have covered other generic accounting skills, with 64% agreeing and 36% listing other generic accounting skills (Figure 4.26). Accountants from government organisations were the group that had the greatest number of respondents who thought that other generic skills than those mentioned in the survey were important, although the majority agreed that all important generic skills had been mentioned. Accountants from non-government organisations, on the other hand, followed the general pattern showed by the majority of other groups under consideration, with 78% agreeing that all important generic skills had been mentioned in the survey and 22% listing other generic skills as being important. Accountants from both groups listed English language skills as being important, with this response being given twice by

accountants from the non-government organisations and once by those from government organisations. Another set of generic skills listed as being important by respondents from both groups were self-development skills. Other generic skills mentioned as being important by accountants from non-government organisations were self-learning skills, "improvement skills" (which possibly overlaps with the "self-learning skills" and "self-development skills" mentioned by other respondents), the ability to be focussed and to arrange work schedules, the ability to follow system methodology and the ability to be familiar with more than one problem at a time. Accountants at government organisations suggested decision making skills, leadership skills, creative skills and the ability to absorb information rapidly as being important generic skills for accountants.

4.4.8 How generic skills compare in importance to technical accounting skills

Figure 4.27 Comparative importance of technical accounting skills vs. generic skills according to accountants at non-government and government organisations



Overall, when both groups of accountants are considered jointly (Figure 4.27), the number of respondents claiming that technical accounting skills are more important than the generic (i.e. non-technical) skills was roughly equal to those who held the reverse opinion (i.e. those who considered generic skills such as the ability to communicate as being more important than the technical accounting skills). Accountants working at government organisations showed a perfect 50–50 split between the two stances, meaning that they appeared to consider technical accounting skills as having equal importance to the non-technical skills.

Accountants working at non-government organisations, however, were more likely to consider technical accounting skills to be more important than other generic skills, with a narrow majority of 52% rating technical accounting skills over non-technical skills. The difference between the two groups of accountants was not very pronounced, with the accountants from non-government organisations differing from their counterparts working for government organisations by only 2%. When the

responses for the two groups are averaged, this gives a mean of 51% for those who place greater importance on the technical accounting skills and a mean of 49% for those who place greater importance on the non-technical skills. This suggests that, on the whole, the accountants responding to our survey are slightly more likely to rate technical accounting skills as being more important than non-technical or generic skill sets.

However, when the generic skills were disaggregated and considered separately alongside technical accounting skills and ranked in order of importance (see Q6), technical accounting skills did not appear to be ranked as being most important by either group. Unusually, and contrasting with these results, 5% of accountants at non-government organisations felt that technical accounting skills were not needed in their workplace (see Q4), which is interesting, given that accountants at non-government organisations were slightly more likely to consider technical accounting skills as being more important than technical accounting skills.

4.5 Male and female accountants

4.5.1 Skills considered important

Male and female accountants working at nine workplaces were surveyed regarding which generic workplace skills were considered important (Figure 4.28). Considerable differences were noticed between the perceptions of male and female accountants. For example, teamwork skills were rated as being important by male accountants (36% and 43% of respondents agreeing or strongly agreeing, respectively, that this skill was important) but was not rated highly by female respondents, with 50% of the female accountants surveyed disagreeing somewhat that this skill was important and the other 50% remaining undecided as to its importance. A similar pattern was noted for other skills considered by the survey.

Regarding presentation skills, 30% of male accountants strongly agreed, 26% agreed and 26% agreed somewhat that this skill was important, whereas 25% of female accountants disagreed and another 25% strongly disagreed with the idea that these skills were important, with the remainder of the female accountants (50%) being undecided. Female accountants were split as to the importance of the capacity for analysis, with 50% agreeing somewhat that this skill was important and 50% disagreeing somewhat; male accountants, however, consistently rated this skill as being important, with 43% and 38% of male accountants either strongly agreeing or agreeing, respectively, that this skill was important and only 2% disagreeing somewhat and 2% disagreeing with this skill's importance. Female accountants were also sharply divided regarding the importance of problem-solving skills, with 25% agreeing somewhat that this skill was important and 25% disagreeing somewhat (the remainder of the female accountants surveyed were undecided as to this skills' importance). The majority of male accountants, on the other hand, tended to believe

that problem-solving skills were important (49% strongly agreeing, 28% agreeing and 15% agreeing somewhat). Two skills were rated as being of roughly similar importance by both male and female accountants: ability to communicate and interpersonal skills. Of the male accountants surveyed, 36% strongly agreed and 51% agreed that the ability to communicate was important, while female accountants tended to strongly agree (25%), agree (25%) or agree somewhat (25%) that this skill was important. However, a significant minority (25%) of female accountants disagreed that the ability to communicate was important. Both male and female accountants were likely to strongly agree (38% of males), agree (47% of males and 50% of females) or agree somewhat (9% of males and 25% of females) that interpersonal skills were important, although quarter of the female accountants disagreed that this skill was important (For more detailed results, see Appendix I).

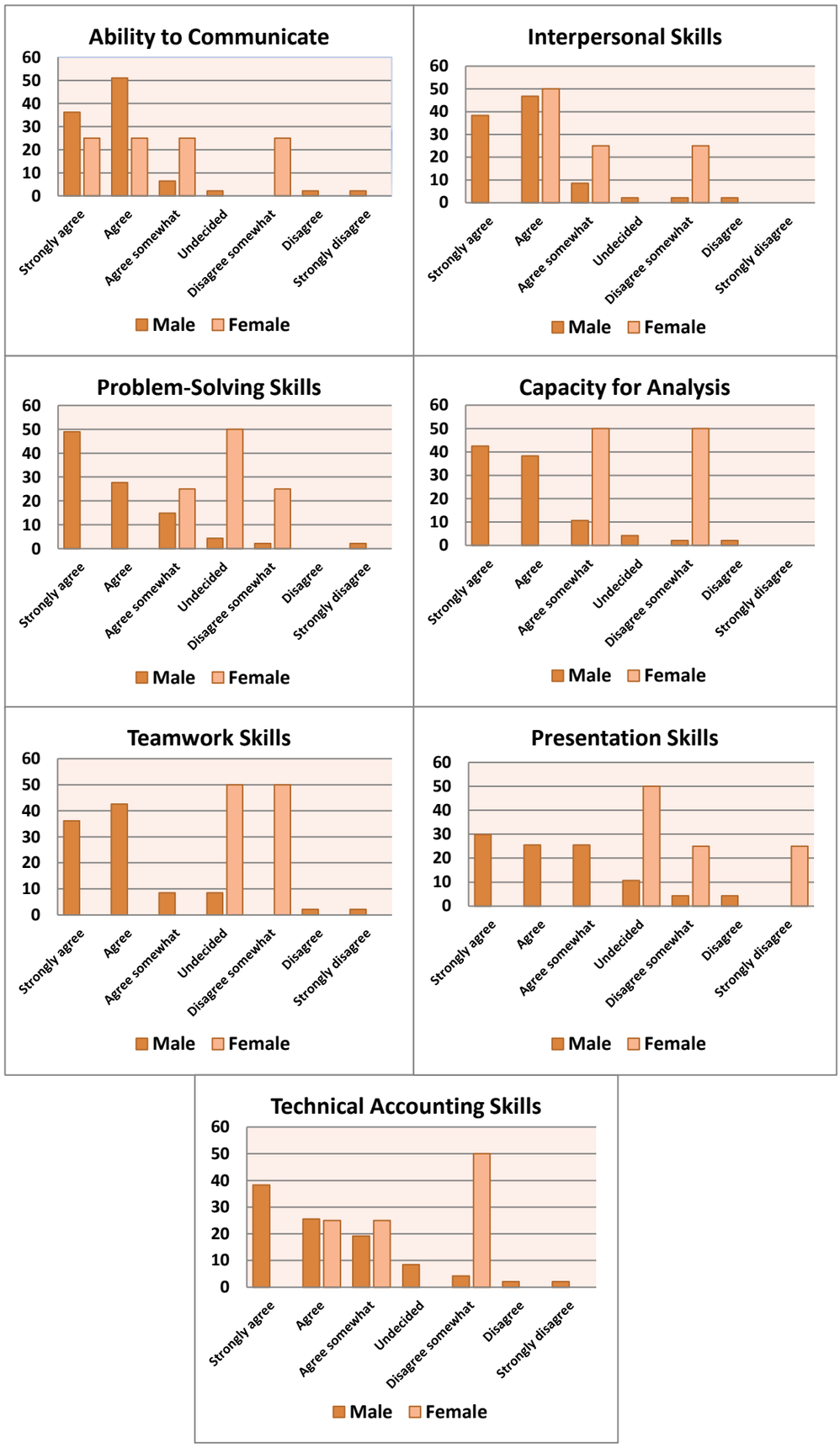
4.5.2 How well were the generic and technical accounting skills taught

Regarding how well a range of generic workplace skills were covered in the degree courses taken by a sample of accountants in nine Saudi Arabian workplaces, considerable differences appeared between the male and female respondents (Figure 4.29). All of the female accountants surveyed very well that the ability to communicate had been covered very well by their degree course, while males provided a wider range of responses, with the majority stating that the coverage of this aspect had been exceptional (30%), excellent (26%) or very good (17%), but some respondents thought these skills had been only covered just well enough (17%), or that coverage had been average (4%) or poor (6%). Regarding interpersonal skills, female accountants either stating that the coverage of this skill had been very good (50%) or that it had been covered well (50%); male perceptions tended to be positive on the whole (23% stating that the coverage had been exceptional, 32% stating that the coverage had been excellent and 21% stating that the coverage had been very good), but a significant minority did not feel that this aspect had been covered adequately (4% average and 6% poor).

The greatest difference between male and female accountants appeared when survey respondents rated how well presentation skills had been covered in their degree course: on the whole, male respondents tended to rate coverage of this aspect highly, with 17% rating coverage as exceptional, 28% as excellent and 17% as very good; females tended to state that the coverage had been average (50%) or very poor (25%) with this statement, with a significant minority believing that it had been well covered (25%).

A similar male–female split was also seen regarding teamwork skills, although the difference was not as pronounced: male accountants tended to perceive that their degree course had covered teamwork skills with some degree of merit (30% stating

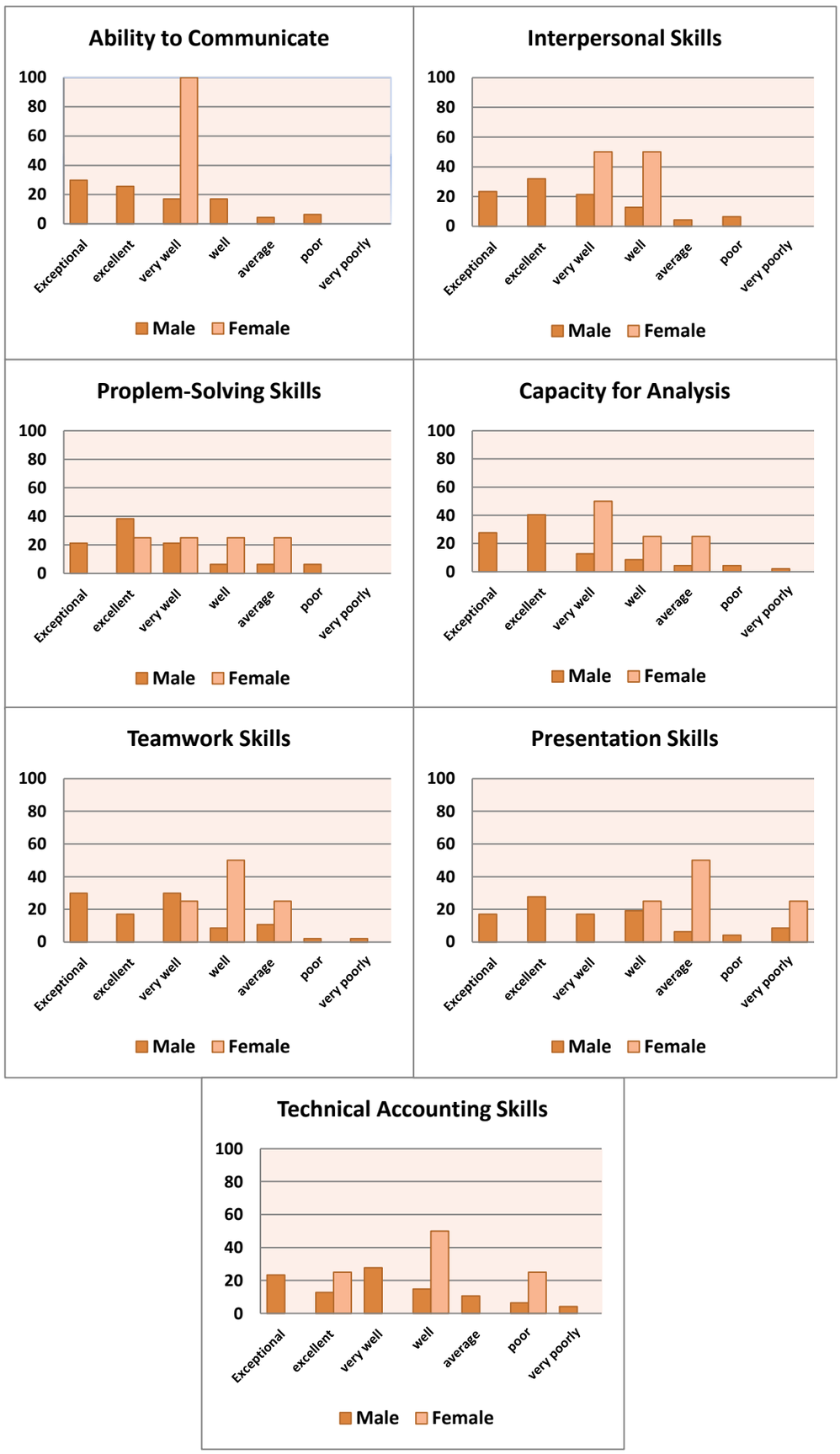
Figure 4.28 Generic skills considered important by male and female accountants



that the coverage had been exceptional, 17% stating that the coverage had been excellent and 30% stating that the coverage had been very good) but female accountants did not consider that their course covered this aspect adequately or else only just adequately (25% stating that the coverage had been average and 50% gave a response of "well"); however, 25% of the female accountants surveyed agreed that this skill had been addressed very well by their degree course.

The skill that was most likely to be rated by both male and female respondents as having been adequately covered was problem-solving skills, with of males tending to state that the coverage had been exceptional (21%), excellent (38%) or very good (21%), and the majority of females stated that the coverage had been excellent (25%) or very good (25%), with 25% believing that coverage had only been just adequately (a response of well) rather than poorly (For more detailed results, see Appendix I).

Figure 4.29 How well generic skills were taught to male and female accountants



4.5.3 How well were the generic and technical accounting skills used at university?

In general, when male and female accountants were asked whether they used a range of generic and technical accounting skills when they were at university (Figure 4.30), males were more likely state to that their use of this skill set had been exceptional. Many male accountants that they had demonstrated an exceptional ability to communicate when they were at university (28%), and had their use of interpersonal skills (21%) and problem-solving skills (17%) had both been exceptional and that they had used the capacity for analysis (19%), teamwork skills (19%), technical accounting skills (15%) and presentation skills (17%) to an exceptional degree. The only skills that male accountants believed they used very poorly at university were presentation skills, with 6% giving this response. Female accountants, on the other hand, never stated that their use of any skill had been exceptional at university.

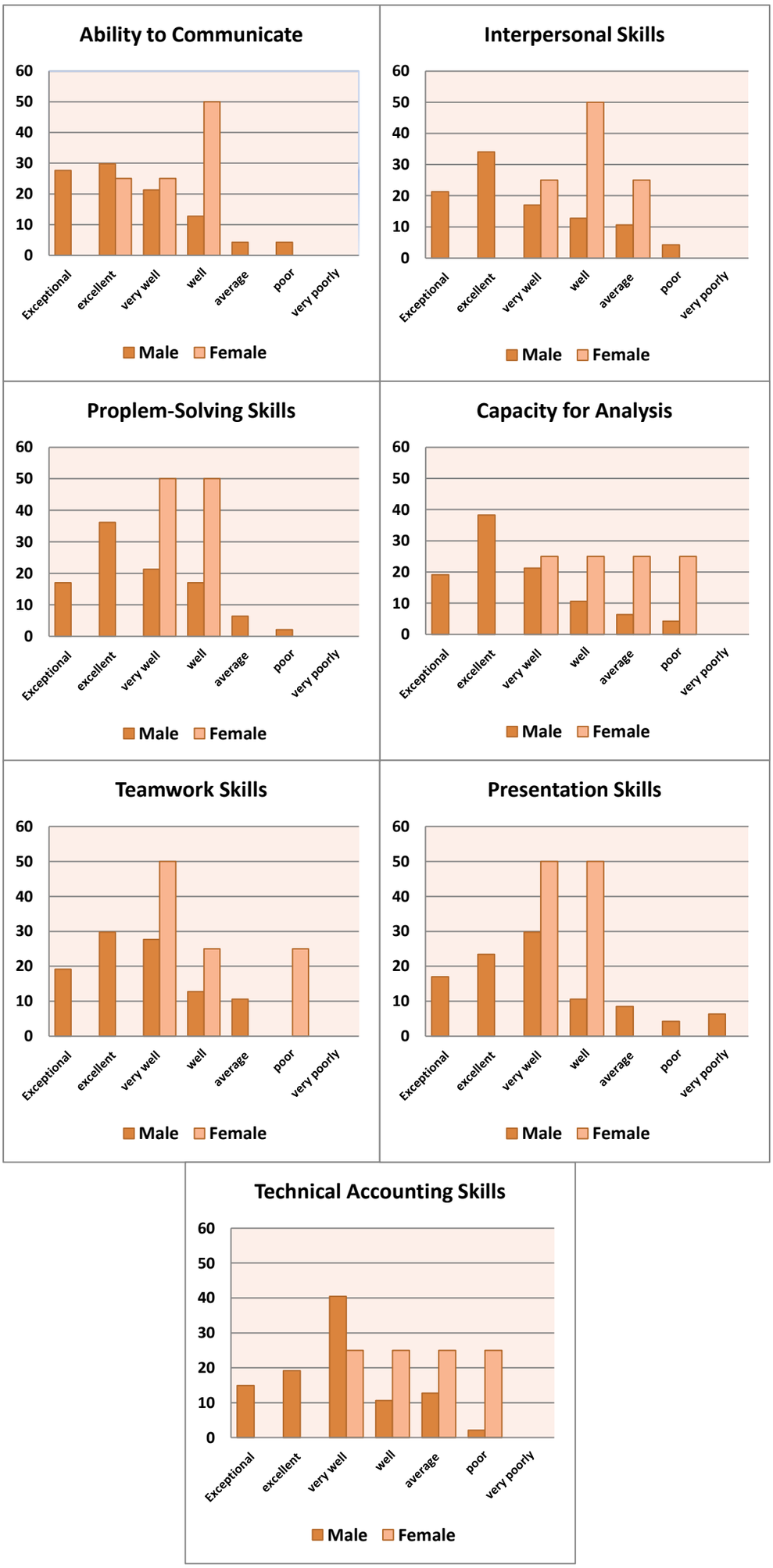
Twenty-five percent of female accountants surveyed stated that one skill (ability to communicate) had been used excellently during their university, and female accountants tended to rate their use of the other skills at university as very good (25% for interpersonal skills, 50% for problem-solving skills, 25% for capacity for analysis, 50% for teamwork skills, 25% for technical accounting skills and 50% for presentation skills). On the whole, the majority of women tended to be somewhat unsure about whether they had used the range of generic and technical accounting skills at more than just a basic level at university, with 50%, 50%, 50%, 25%, 25%, 25% and 50% of female accountants surveyed giving a response of "well" for ability to communicate, interpersonal skills, problem-solving skills, capacity for analysis, teamwork stills, technical accounting skills and presentation skills respectively.

However, women never stated that a certain skill was used very poorly at university, unlike male accountants, where a minority did give a response of "very poorly", as described above. Overall, the skills that most respondents tended to agree that they used technical accounting skills at university with some degree of merit, with 74% of males stating that they used this skill excellently, exceptionally or very well and 25% of female accountants stating that their use of these skills had been excellent; and problem-solving skills, with 50% of female accountants that they used these skills to an excellent level and 74% of male accountants stating that their use of these skills had been excellent, exceptional or very good at university (For more detailed results, see Appendix I).

4.5.4 Specific skill levels required to get a good job

On the whole, all skills tended to be required at the workplaces of the male and female accountants surveyed (Figure 4.31), although 4% of males claimed that technical accounting skills were not required, 4% of males stated that presentation

Figure 4.30 How the generic skills were used at university by male and female accountants



skills were not required and 2% of males claimed that interpersonal skills were not required; female accountants never stated that a skill was not required.

Female accountants never claimed that they were required to demonstrate any skill at an advanced level, although advanced skills were perceived as being required by male accountants in all skill areas (regarding ability to communicate, 36% of male accountants claimed that this skill was required at an advanced level; for interpersonal skills, 26%; for problem-solving skills, 32%; for capacity for analysis, 38%; for teamwork skills, 28%; for technical accounting skills, 26%; and for presentation skills, 26%).

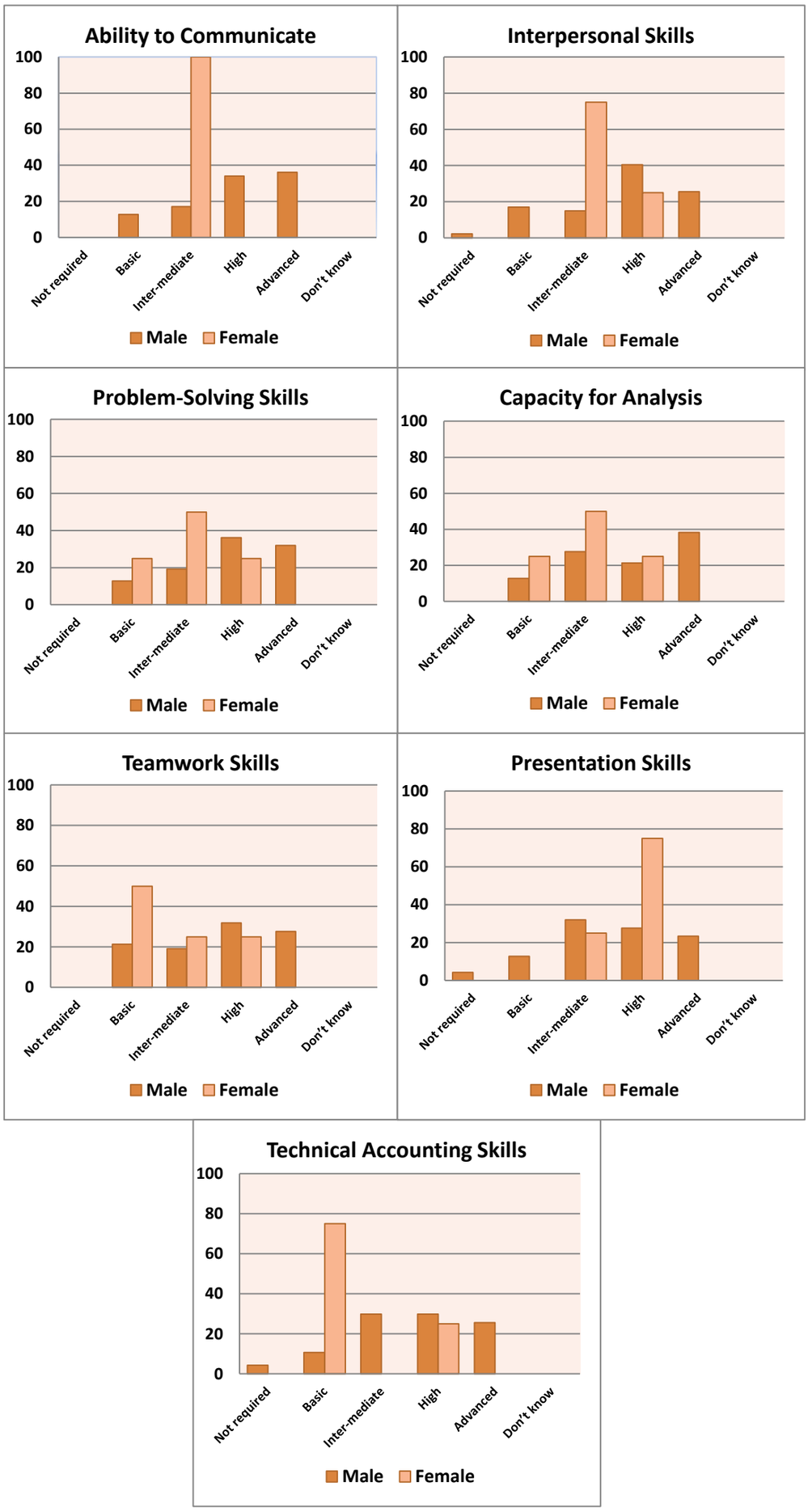
Female accountants tended to state that presentation skills were those most likely to be required at a more than basic level (75% stating that this skill was required at a high level and 25% claiming that it was needed at an intermediate level), with interpersonal skills ranking second, with 25% of female accountants claiming that this skill was needed at a high level and 75% stating that it was needed at an intermediate level in their workplaces. For males, the skills that were required at higher levels were capacity for analysis (rated as being required at an advanced level by 38% of male accountants and as being required at a high level by 21%, with a further 28% stating that this skill was required at an intermediate level) and technical accounting skills, with 86% of male accountants claiming that this skill was required at an above-basic level and 26% claiming that this skill was required at an advanced level.

In contrast, most female accountants (75%) felt that only a basic level of technical accounting skills was required at their workplace, although 25% stated that a high level of technical accounting skills was required (For more detailed results, see Appendix I).

4.5.5 Current generic skill levels

Considerable variation could be seen in the responses given by male and female accountants when they were asked to rate their skill levels for a range of generic and technical accounting skills (Figure 4.32). The overwhelming majority of respondents, both male and female, considered that they had at least a basic skill level in all areas surveyed. However, a significant minority of female accountants (25%) felt that they had no presentation skills, and 6% of males also felt that they had no presentation skills. A very small number of male accountants felt that they had no problem-solving skills (2%) or teamwork skills (2%).

Figure 4.31 The skill levels needed to get a job according to male and female accountants



Areas where male accountants tended to rate their skill level more highly than the female accountants did were ability to communicate (66% of males rated their skill level as high or advanced compared to 0% of females), interpersonal skills (68% of males rating their skill level as high or advanced compared to 25% of women – and none of the women rated their skill level in this area as advanced). Only regarding capacity for analysis did female accountants tend rate themselves more highly than did their male counterparts, with 75% of women considering that they had a high level of skill in this area, compared to 53% of males who rated their capacity for analysis as high or advanced; however, no female accountants rated their capacity for analysis as being advanced.

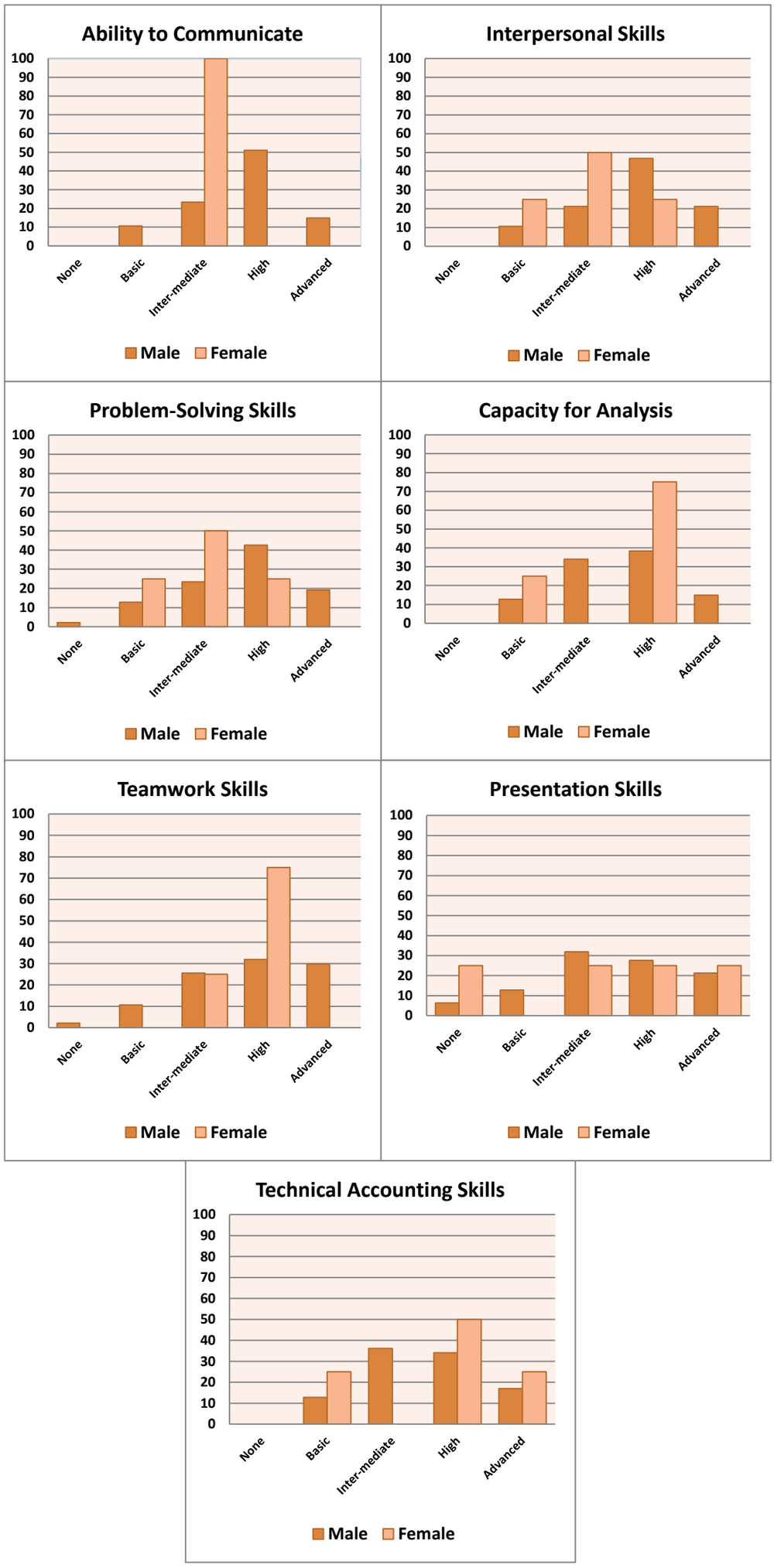
A percentage of male accountants rated themselves as having advanced skill levels in all areas (15% for ability to communicate, 21% for interpersonal skills, 19% for problem-solving skills, 15% for capacity for analysis, 30% for teamwork skills, 17% for technical accounting skills and 21% for presentation skills), but female accountants only rated themselves as having advanced skills in two areas: technical accounting skills (25% of female accountants) and presentation skills (25%).

Interestingly, female accountants all tended to rate their ability to communicate as being at an intermediate level (100%), whereas the male accountants tended to show a greater spread in their responses, with male accountants' answers were approximately normally distributed along the spectrum ranging from "basic" to "advanced", with a slight skew towards a higher to advanced rating (For more detailed results, see Appendix I).

4.5.6 How the generic and technical accounting skills stack up in their degree of importance relative to each other

Overall, the generic skill that was most likely to be rated as important by both male and female accountants in our survey (Figure 4.33) was the ability to communicate, with 30% of male accountants and 75% of female accountants rating this skill set as most important (1), 19% of male accountants rating this skill set as very important (2), and 9% and 25% of male and female accountants, respectively, rating this skill set as important (3). The skills that showed the greatest difference between male and female respondents were technical accounting skills: although 11%, 19% and 13% of male accountants rating this skill set as most important (1), very important (2) or important (3), respectively, 50% of females rating this skill set as not very important (5) and 25% least important (7), with the remainder of the females rating this skill set as somewhat important (4).

Figure 4.32 Skill level of male and female accountants



Another skill set that showed a wide difference in the importance placed on it by male vs. female accountants was presentation skills, where the majority of females tended to rate these skills as relatively important (50% rating this skill set as important (3) and 25% rating this skill set as most important (1)) but the majority of men tending to rate these skills as being not so important (72% giving a negative response, i.e. “not very important (5)”, “less important (6)” or “least important (7)”). The skills that male accountants placed greater importance on (i.e. the majority gave positive responses of “very important (2)”, “important (3)” or “most important (1)”) were the ability to communicate (55% of males gave positive responses), problem-solving skills (51% gave a positive response) and interpersonal skills (47% gave a positive response).

The skills that female accountants appeared to place importance on were the ability to communicate (100% of female accountants gave a positive response), presentation skills (75% gave a positive response), problem-solving skills (50%) and interpersonal skills (50%). The skills that appeared to be rated as the least important by male accountants were presentation skills, with 4% rating this skill set as not very important (5), 21% rating this skill set as less important (6) and 47% rating this skill set as least important (7). For females, on the other hand, the skills rated as being least important were teamwork skills, with 50% rating this skill set as less important (6) and 25% rating this skill set as least important (7), and technical accounting skills, with 50% rating this skill set as not very important (5) and 25% rating this skill set as least important (7) (For more detailed results, see Appendix I).

Figure 4.34 shows the overall rank scores assigned to the different skill sets by the two groups. For both groups, the ability to communicate was the most important skill, but large differences were seen between the two groups when the other skills were considered. For male accountants, the second most important skill set was the capacity for analysis, with technical skills placing third.

Interpersonal skills and problem solving skills shared fourth place in the ranking, with presentation skills placing second last and teamwork skills last of all. For females, presentation skills appeared to be ranked in second place, with all the other skills having equally low scores and being placed last equal. The sample size may have affected and biased these results, which seem to clash with the general perception regarding presentation skills. A larger sample size may give a clearer picture.

Figure 4.33 Relative importance of generic skills according to male and female accountants

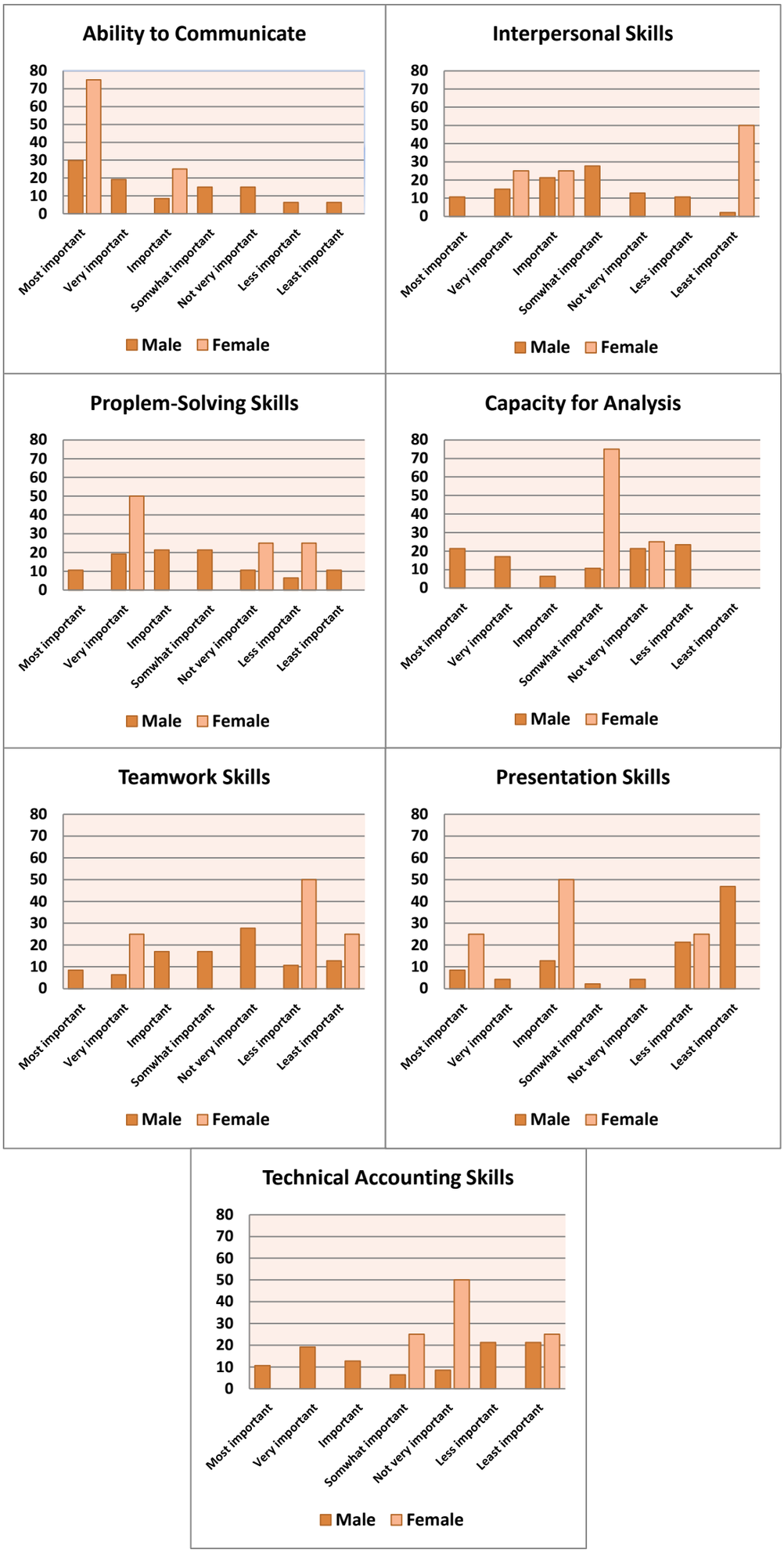
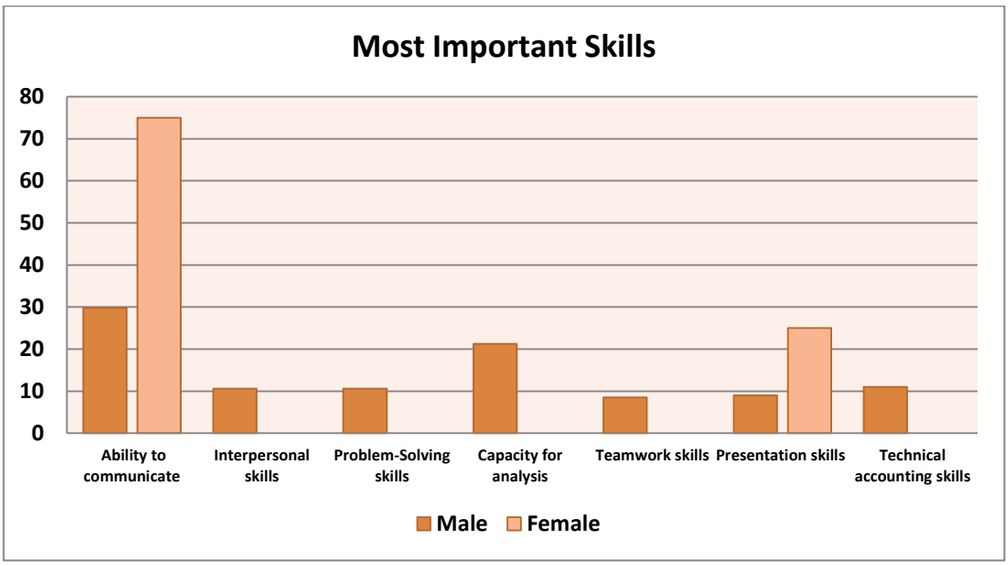
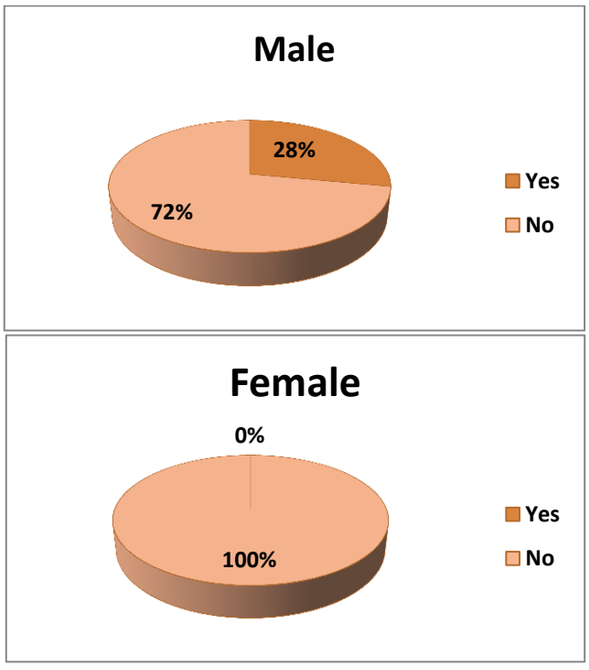


Figure 4.34 Ranking of the skills in order of importance



4.5.7 Other important generic skills

Figure 4.35 Respondents agreeing that further generic skills could have been covered by the survey: male and female accountants



Interestingly, all female accountants agreed that the survey had covered all the important generic accounting skills, unlike female accounting students. Male accountants, however, were more likely to list other generic skills as being important (Figure 4.35), with 28% disagreeing that the survey had listed all the important generic accounting skills. The extra generic skills listed by the male accountants covered quite a broad range of areas but could be grouped into several main categories. The first category covered flexibility and learning skills.

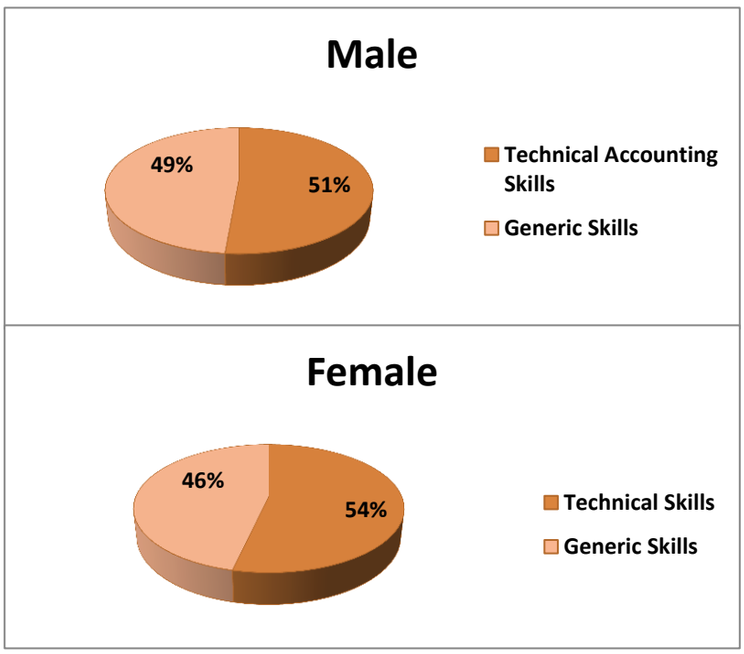
Generic accounting skills mentioned by the male accountants in this category were self-learning skills, self-development skills (mentioned by two male accountants), improvement skills and the ability to absorb information rapidly. The second category covered thinking skills (which included organisational skills), and

suggestions in this category listed by male accountants included decision making skills, creative thinking skills, the ability to be focussed and to arrange work schedules, the ability to follow system methodology and the ability to be familiar with more than one problem at a time. The third category was leadership skills and the final category was English language skills. It is interesting that female accountants did not list English language skills as a possible additional important generic skill for accountants, as this response was listed by the female accounting students but not by the male accounting students, in contrast to the results found here.

The results, however, could be swayed by the sample size, and further surveys including a greater number of female accountants in the workplace could reveal other areas where gender differences could be revealed.

4.5.8 How generic skills compare in importance to technical accounting skills

Figure 4.36 Comparative importance of technical accounting skills vs. generic skills according to male and female accounting students



Overall, the people-based or generic skills, i.e. the ability to communicate, interpersonal skills, teamwork skills, presentation skills, problem-solving skills and the capacity for analysis, tended to rate as being less important by both male and female accountants in our survey of nine workplaces in Saudi Arabia (Figure 4.36). However, the difference between these two skill sets (technical accounting vs non-technical or generic) was not great: 51% vs. 49% of males rated technical accounting skills as being more important, and 54% vs 46% of female accountants rated technical accounting skills as being more important. Here, it can be seen that men tended to rate the importance of technical accounting skills as being practically identical to that of non-technical or generic skills, whereas female accountants seemed to place a higher level of importance on the technical accounting skills, although the difference between those who rated technical accounting skills as being more important vs those who did not was only 8%.

However, if the proportions of men and women rating technical accounting skills as being more important are averaged, this gives an overall mean of 52.5%, which is within two percentage points of both the male and female responses, indicating that male and female accountants tended to agree quite closely that technical accounting skills are more important than generic or non-technical skills. From this, it can be concluded that in the nine Saudi Arabian workplaces surveyed, both male and female accountants tended to feel that technical accounting skills were of approximately equal importance to the non-technical or generic skills. It is interesting that female accountants were slightly more likely to rate technical accounting skills as being important, given that 25% of female accountants disagreed that these skills had been covered adequately by their degree course; 75% of women, however, felt that they currently had a high or advanced level of technical accounting skills, which may reflect the importance placed on these skills by the majority of female accountants: it is an area of strength for them.

4.6 All accounting students and accountants

4.6.1 Skills considered important

On the whole, all skill sets were considered important by both survey groups, with the majority of students and the majority of accountants tending to respond positively regarding the different skills (Figure 4.37). The skills that were very markedly considered to be important were the ability to communicate and problem-solving skills. For the ability to communicate 40% of accounting students and 35% of accountants strongly agreed that this skill was important, and 36% and 49% respectively agreed that it was important. For problem-solving skills, 46% of accounting students and 45% of accountants strongly agreed that these skills were important, and 27% and 25% respectively agreed that problem-solving skills were important. Regarding these two areas, the responses of the two groups matched very closely.

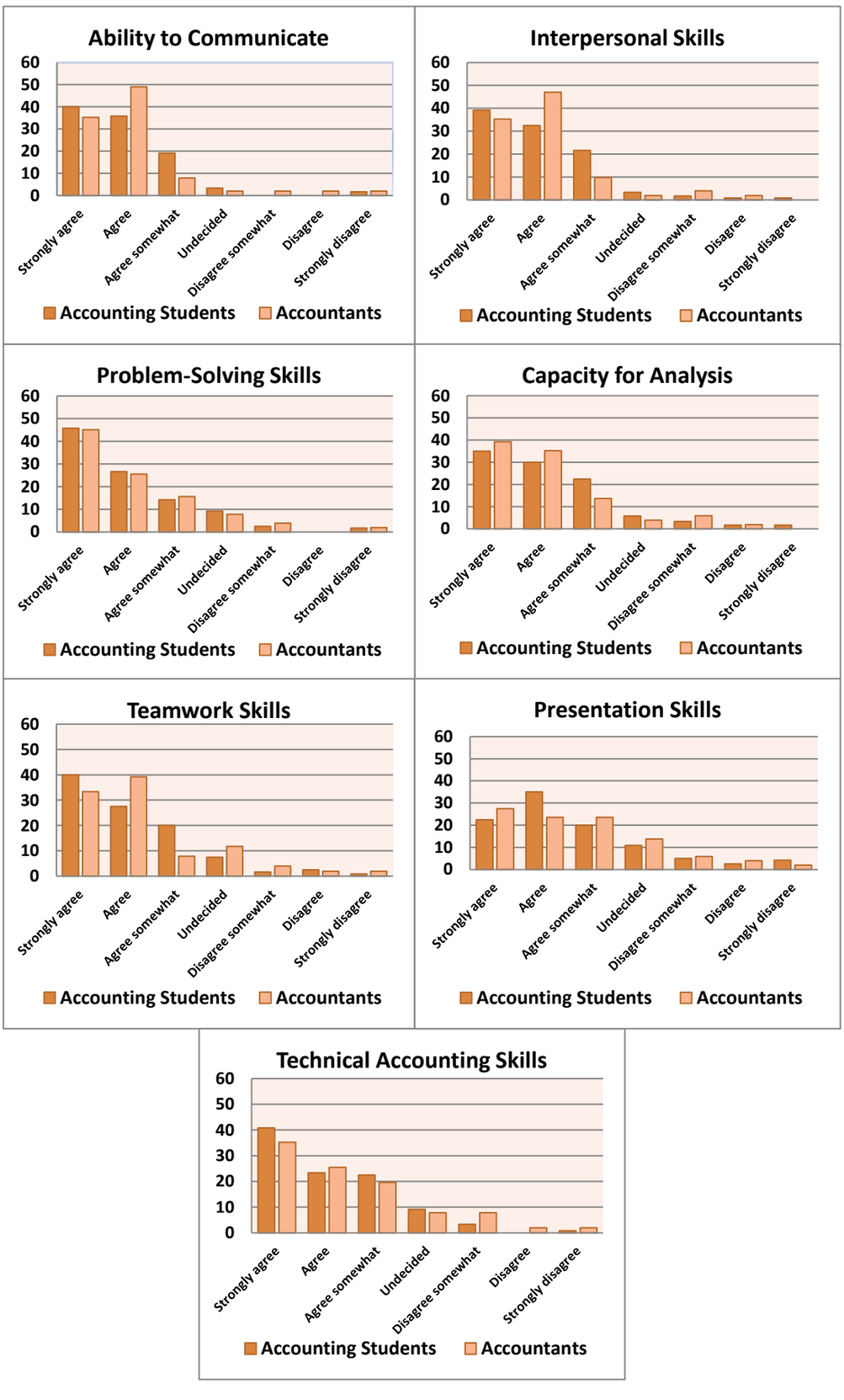
The area where accounting students and accountants differed most was regarding the importance of teamwork skills, although this difference was not great: 88% of accounting students and 80% of accountants responded positively (i.e. responses of "agree strongly", "agree" or "agree somewhat") regarding this skill, with the accountants being slightly more likely to disagree to some degree (8%) or to be undecided (12%) as to these skills' importance. This difference, however, was only slight.

The skills that accounting students were most likely to consider to be unimportant were presentation skills, with 5% disagreeing somewhat, 3% disagreeing and 4% disagreeing strongly that these skills were important. For accountants, the skills that were most likely to be considered unimportant were presentation skills (6% disagreed somewhat, 4% disagreed and 2% disagreed strongly, with 14% being undecided) and

technical accounting skills (8% disagreed somewhat, 2% disagreed and 2% disagreed strongly, with 8% being undecided). This suggests that presentation skills are those that are most likely to be considered unimportant by accounting students and by accountants.

A small but interesting difference between the two groups appeared in the percentage that disagreed to some degree that communication skills were important, with accountants being more likely to give a negative response than accounting students (6% vs. 2%) (For more detailed results, see Appendix J).

Figure 4.37 Level of agreement about the important of skills by all accounting students and all accountants



4.6.2 How well were the generic skills taught?

Although presentation skills were the skill set that both study groups were most likely to consider as not having been covered adequately by their degree course (Figure 4.38), accountants were more likely than accounting students to state that these skills had been covered very poorly, with 10% (vs. 1% of accounting students) giving this response. On the whole, accounting students were much more likely than accountants to respond positively that presentation skills had been covered adequately, with 18% stating that coverage of this skill set had been exceptional, 28% excellent and 21% very good, compared to 16%, 25% and 16% of accountants respectively, with 13% of accounting students being stating that coverage had been just adequate (covered well) compared to 20% of accountants.

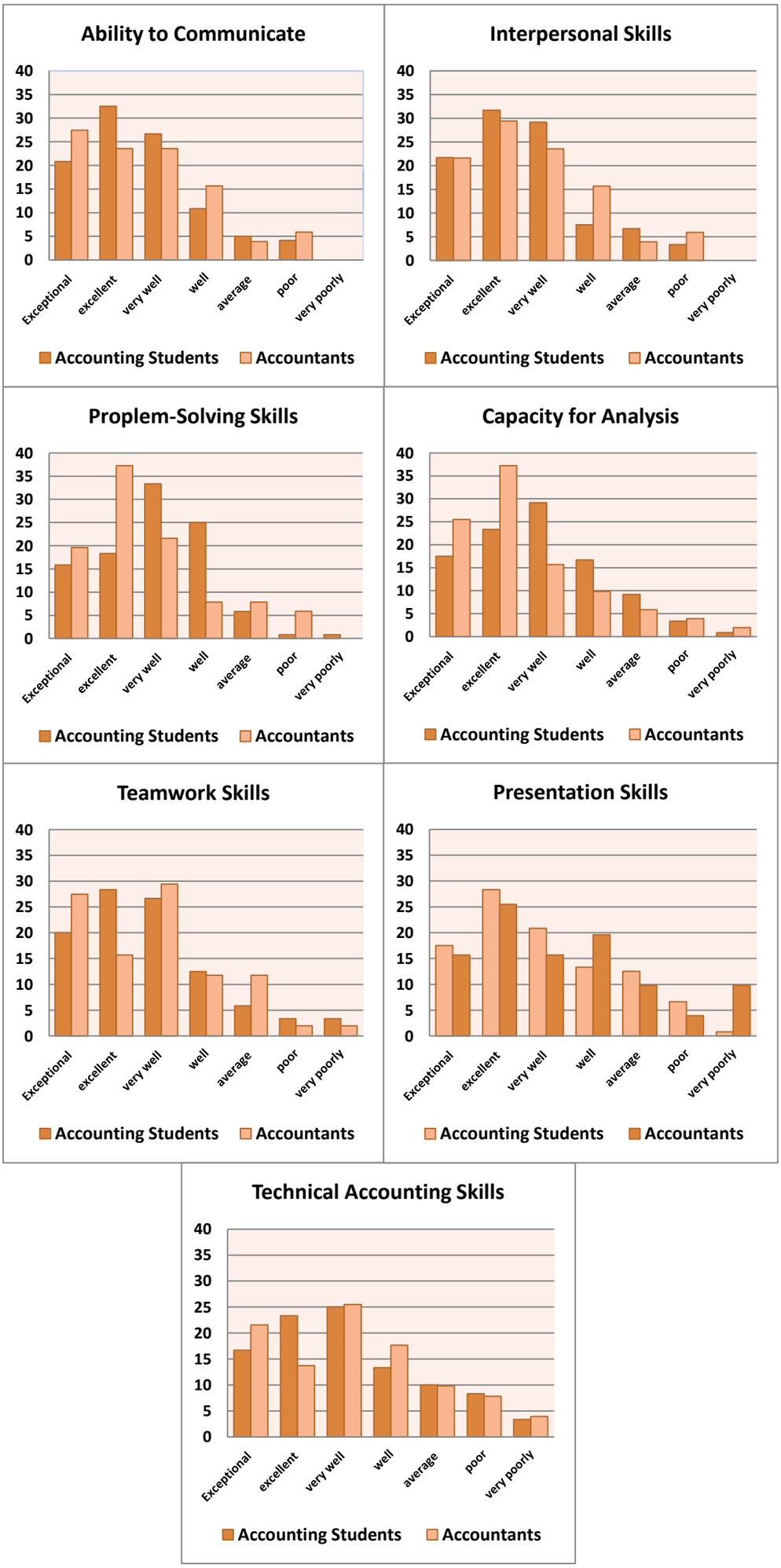
Accounting students and accountants also appeared to differ in their responses as to whether problem-solving skills, with accountants being more likely to give a positive response (20% stating that coverage of this skill set had been exceptional, 37 % stating that coverage of this skill set had been excellent and 22% stating that coverage of this skill set had been very good, compared to 16%, 18% and 33% respectively of accounting students).

Furthermore, problem-solving skills were the skill set that accounting students were most likely to be somewhat unsure about, with 25% stating that this area had only been “well” covered. The area about which accountants were most likely to state had only just been covered well enough was presentation skills, as described above.

The skills that accounting students were most likely to consider as having been adequately covered by their degree course were interpersonal skills, with 22% stating that coverage of this skill set had been exceptional, 32% stating that coverage of this skill set had been excellent and 29% stating that coverage of this skill set had been very good. These skills were closely followed by the ability to communicate, with 81% giving a positive response. These skill set that was the most likely to be considered as having been covered with some degree of merit by their degree course was the capacity for analysis, with 78% of accountants giving a strongly positive response regarding this skill.

However, the ability to communicate and interpersonal skills were ranked second-equal as to their likelihood of having been covered adequately, according to accountants (For more detailed results, see Appendix J).

Figure 4.38 How well generic skills were taught to all accounting students and all accountants



4.6.3 How well were the generic and technical accounting skills used at university?

The response patterns of accountants and accounting students (Figure 4.39) tended to match quite closely, and tended to be approximately normally distributed, with a slight leftward (i.e. towards a more positive response) in all skill areas. The skill areas that accounting students were most likely to respond positively that they had used at university were the ability to communicate (25% stated that their use had been exceptional, 29% stated that their use had been excellent and 29% stated that their use had been very good) and interpersonal skills (22% stated that their use had been exceptional, 33% stated that their use had been excellent and 38% stated that their use had been very good). Accountants also stated that the skill that they were most likely to have used at university was the ability to communicate (25% stated that their use had been exceptional, 29% stated that their use had been excellent and 22% stated that their use had been very good).

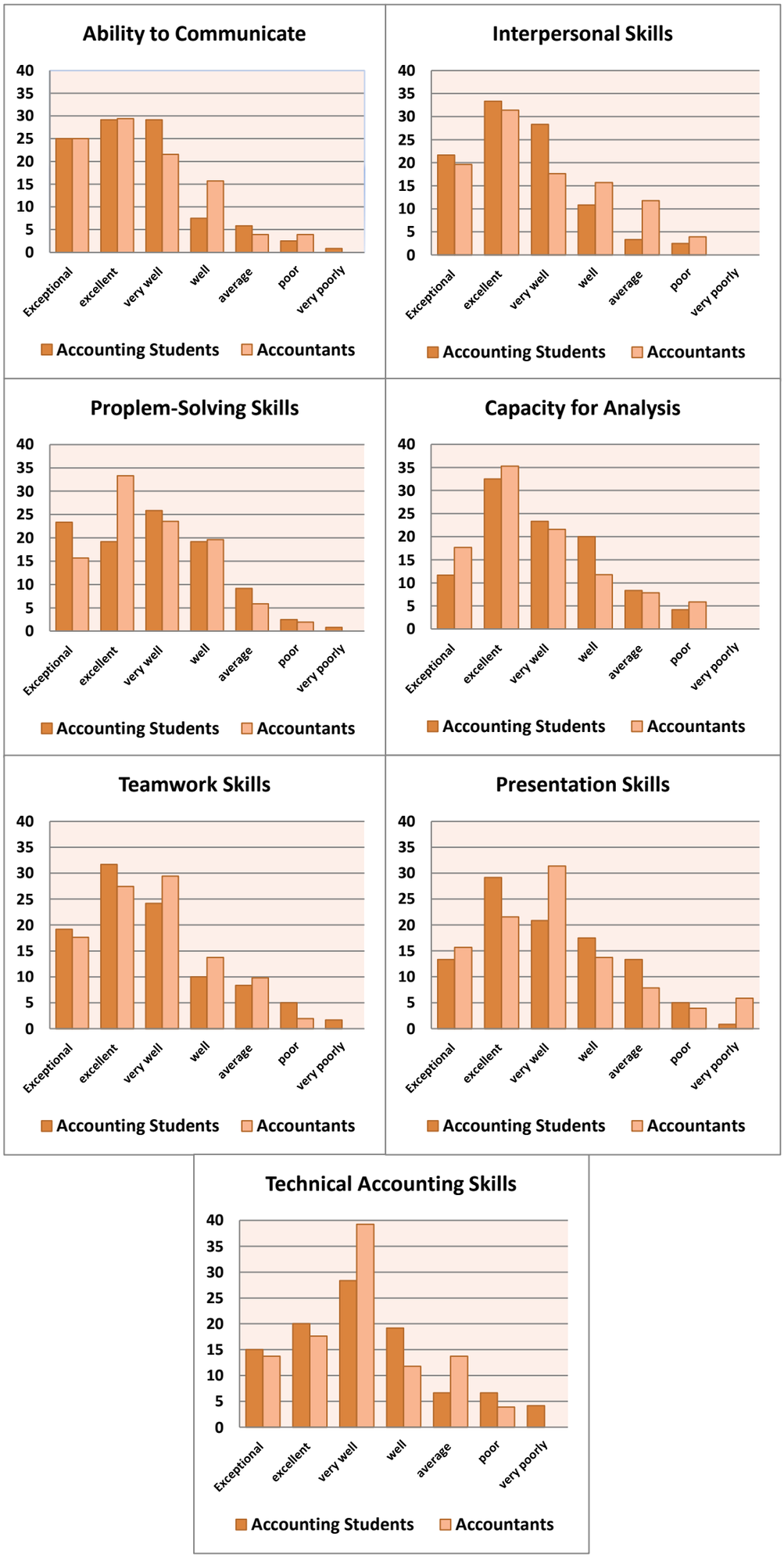
However, for this group, these were followed by the capacity for analysis and teamwork skills, and interpersonal skills were much more likely to have not been used at university. Both accountants and accounting students ranked presentation skills as the least likely to have been used at university, with 19% of accounting students and 18% of accountants disagreed that they had used this skill with any degree of merit.

A significant difference could be seen between the two groups regarding whether interpersonal skills had been used: although only 6% of accounting students gave a negative response regarding whether these skills had been used at university (unsurprising, given the results described above), 16% of accountants disagreed to some degree that these skills had been used with any degree of merit.

While both groups were equally likely to disagree that they had used technical accounting skills at university with any degree of merit (18% for accountants and 18% accounting students), accounting students were less likely to state that their use these skills had been excellent compared to accountants: 63% of accounting students compared to 71% of accountants).

Interestingly, the only skills accountants said they had used very poorly at university were presentation skills, with this group never giving this response for any of the other skill areas (For more detailed results, see Appendix J).

Figure 4.39 How the generic skills were used at university by all accounting students and all accountants



4.6.4 Specific skill levels required to get a good job

One notable point of difference between accountants and accounting students (Figure 4.40) is that accounting students were more likely to respond that no skills were needed in order to get a job, with a small minority of accounting students giving this response in all skill areas: 3% for the ability to communicate, 2% for interpersonal skills, 2% for problem-solving skills, 4% for the capacity for analysis, 8% for teamwork skills, 6% for technical accounting skills and 4% for presentation skills. Accountants, however, only stated that no skills were needed in three areas: 2% for interpersonal skills, 4% for technical accounting skills and 4% for presentation skills.

Furthermore, accountants never gave the response "don't know" regarding whether a skill was needed for a job, whereas a small percent of students gave this response in nearly all areas: 2% for the ability to communicate, 1% for problem-solving skills, 4% for the capacity for analysis, 1% for teamwork skills, 3% for technical accounting skills and 3% for presentation skills. These differences between the two groups can easily be explained by the actual workplace experience of the two groups, with accountants in the workplace being far more aware of the demands of accounting in the "real world", whereas accounting students have less experience.

The skills that accountants were most likely to consider as being necessary at a high or advanced level in the workplace were the ability to communicate (31% considered that a high level and 33% considered that an advanced level was needed) and problem-solving skills (35% considered that a high level and 29% considered that an advanced level was needed).

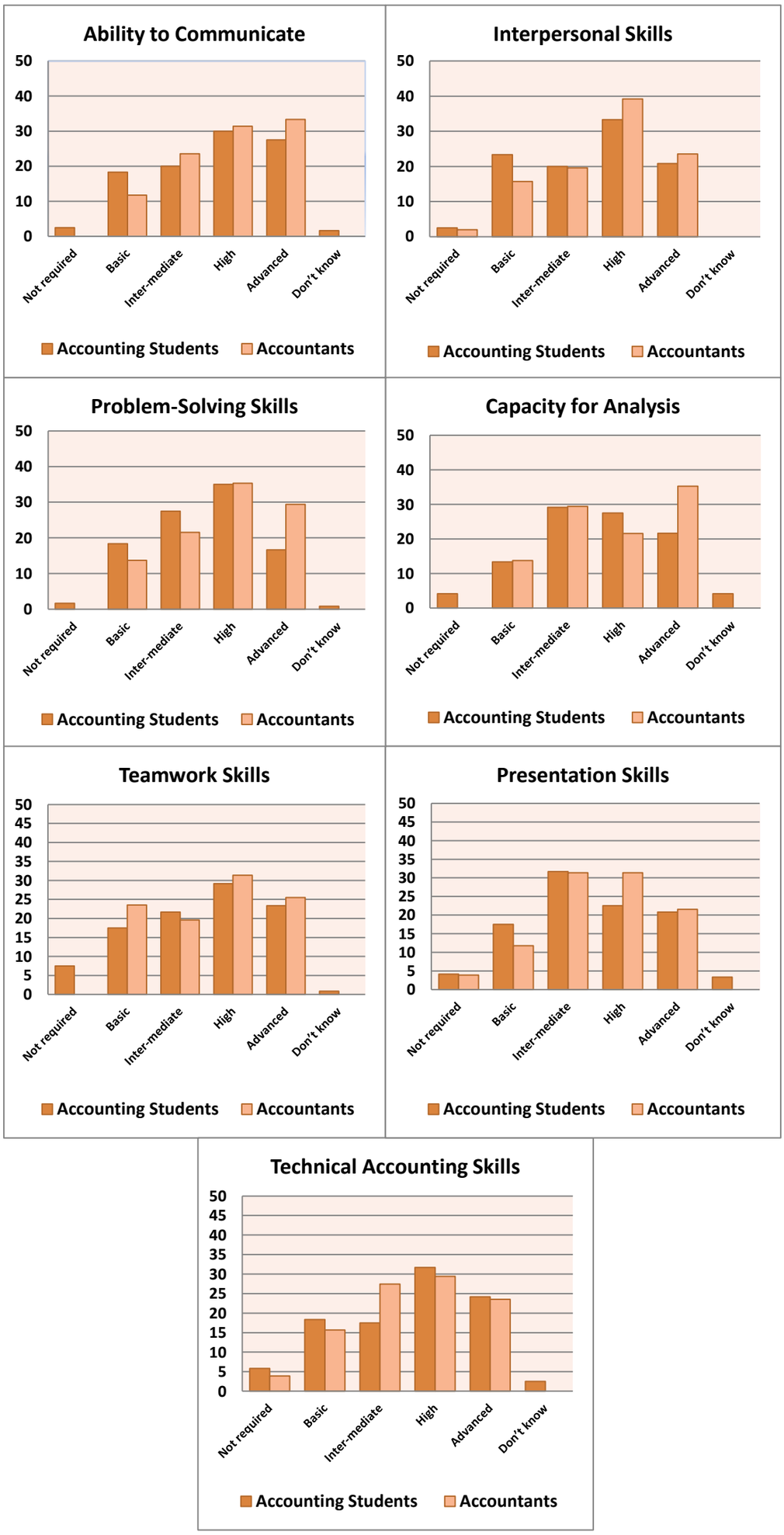
The ability to communicate was also the skill set that accounting students perceived as being needed at a high or advanced level (30% considered that a high level and 28% considered that an advanced level was needed), followed by technical accounting skills (32% considered that a high level and 24% considered that an advanced level was needed).

The perception that the ability to communicate was the most likely to be needed at a high or advance level was common to both groups (For more detailed results, see Appendix J).

4.6.5 Current generic skill levels

Similar to the results of Q4, accounting students were far more likely to rate themselves as having no skills (Figure 4.41), with a small percent of students rating their skills this way in all areas: 6% for the ability to communicate, 5% for interpersonal skills, 8% for problem-solving skills, 13% for the capacity for analysis,

Figure 4.40 The skill levels needed to get a job according to all accounting students and all accountants



6% for teamwork skills, 8% for technical accounting skills and 14% for presentation skills.

Accountants, however, only rated themselves as having no skills in three areas: problem-solving skills, (2%), teamwork skills (2%) and presentation skills (8%). These results also indicate that presentation skills were the most likely to be felt to be a weak area by both groups, with accountants being more likely to have no presentation skills compared to accounting students. The skills where accounting students were most likely to consider an area of strength (i.e. they rated themselves as having a high or advanced level of that skill) were interpersonal skills, with 43% considering that they had a high level and 15% considering that they had an advanced level of these skills.

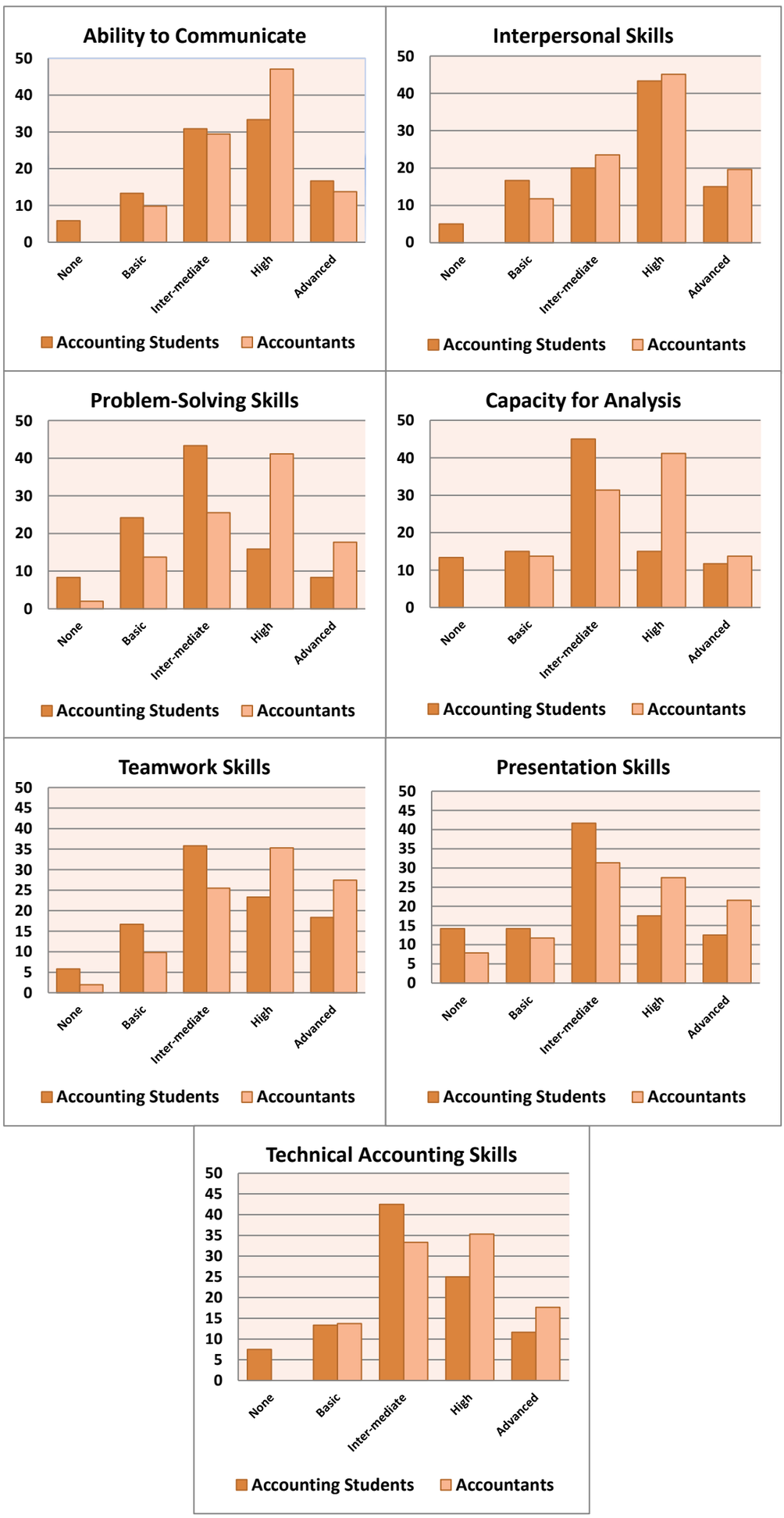
Interpersonal skills were also the most likely to be considered an area of strength by accountants, with 45% rating themselves as having a high level and 20% rating themselves as having an advanced level of these skills. Although interpersonal skills were felt to be an area of strength by both groups, accountants were more likely to rate themselves as having a high or advanced level of these skills compared to accounting students.

Accounting students were most likely to rate themselves as having an intermediate level of skill, and did so more frequently than accountants did:

- 31% stated that they had an intermediate communication skills, compared to 29% of accountants;
- 20% stated that they had an intermediate level of interpersonal skills, compared to 24% of accountants;
- 43% stated that they had an intermediate level of problem-solving skills, compared to 25% of accountants;
- 45% stated that they had an intermediate capacity for analysis, compared to 31% of accountants;
- 36% stated that they had an intermediate level of teamwork skills, compared to 25% of accountants;
- 43% stated that they had an intermediate level of technical accounting skills, compared to 33% of accountants; and
- 42% stated that they had an intermediate level of presentation skills, compared to 31% of accountants.

The most frequent response given by accountants was that they had a high level of skill in any given area (For more detailed results, see Appendix J).

Figure 4.41 Skill level of all accounting students and all accountants



4.6.6 How the generic and technical accounting skills stack up in their degree of importance relative to each other

Accountants and accounting students showed very similar response patterns regarding two skill sets (Figure 4.43): they were very likely to rate this skill set as important to some degree on the relative importance of the ability to communicate (41% of accounting students rated this skill set as most important (1), 15% rated this skill set as very important (2) and 19% rated this skill set as important (3), and 33%, 18% and 20% of accountants respectively) and they were very likely to rate presentation skills as unimportant, to some extent at least (48% of accounting students rated this skill set as least important (7), 21% rated this skill set as less rated this skill set as important (6) and 14% rated this skill set as not very important (5), and 43%, 22% and 4% of accountants respectively). This suggests that overall, the ability to communicate was considered to be the most important skill and presentation skills were felt to be the least important.

However, accounting students were more likely to respond positively that the ability to communicate was important (75%) than were accountants (61%). Accountants were also much more likely to state that presentation skills were very important (2) (29%) compared to accounting students (8%). The skills that accounting students rated as being the second most important were interpersonal skills: 18% rated this skill set as most important (1), 27% rated this skill set as very important (2) and 14% rated this skill set as important (3). For accountants, the skills ranked as being the second most important were problem-solving skills, where 10% rated this skill set as most important (1), 22% rated this skill set as very important (2) and 20% rated this skill set as important (3).

The skills that accounting students rated as being second least important were technical accounting skills, where 12% rated this skill set as least important (7), 25% rated this skill set as less important (6) and 20% rated this skill set as not very important (5). For accountants, the skills that were rated as being second least important were technical accounting skills, for which 53% responded negatively (22% rated this skill set as least important (7), 20% rated this skill set as less important (6) and 12% rated this skill set as not very important (5)) and teamwork skills, for which 53% also responded negatively (12% rated this skill set as least important (7), 16% rated this skill set as less important (6) and 25% rated this skill set as not very important (5)).

This perception regarding the unimportance of technical accounting skills is another area where the responses of both groups match closely (For more detailed results, see Appendix J).

Figure 4.42 shows the overall scores for each skill set when they were ranked according to importance by the two groups. As was the case for the other groups investigated in this survey, communications kills were rated as being the most important by both groups. For the other skills, the responses of the two groups were similar but not quite identical. The skill that was ranked second for accounting students was interpersonal skills, with capacity for analysis placing third. Capacity for analysis was ranked second by the accountants, and third place was shared by interpersonal skills, problem solving skills, presentation skills and technical accounting skills.

For accountants, the skills that were ranked as being of lowest importance were teamwork skills. For accounting students, teamwork skills were ranked second-last and presentation skills were ranked as least important. Regarding for the other skill sets and their ranking by accounting students, problem solving skills were placed fourth and technical accounting skills were placed fifth.

Figure 4.42 Ranking of the skills in order of importance

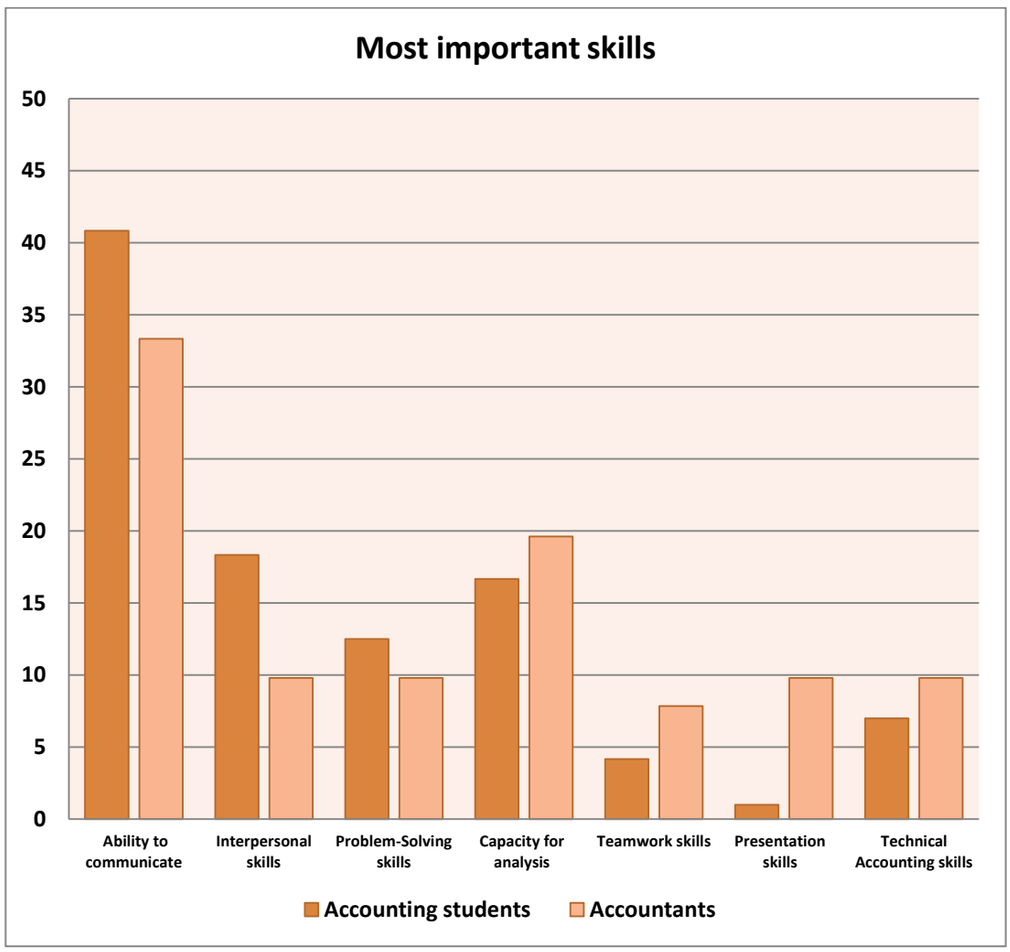
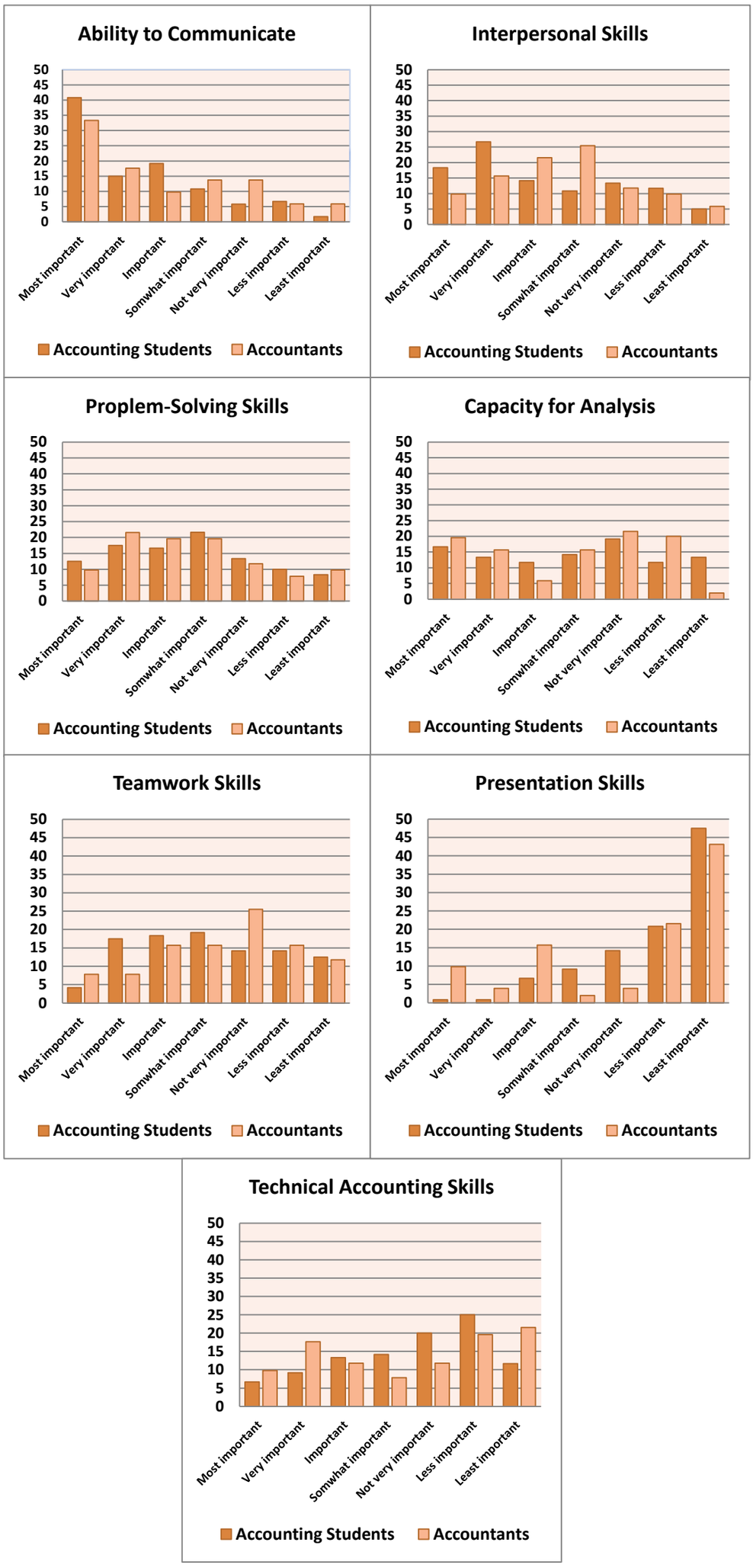
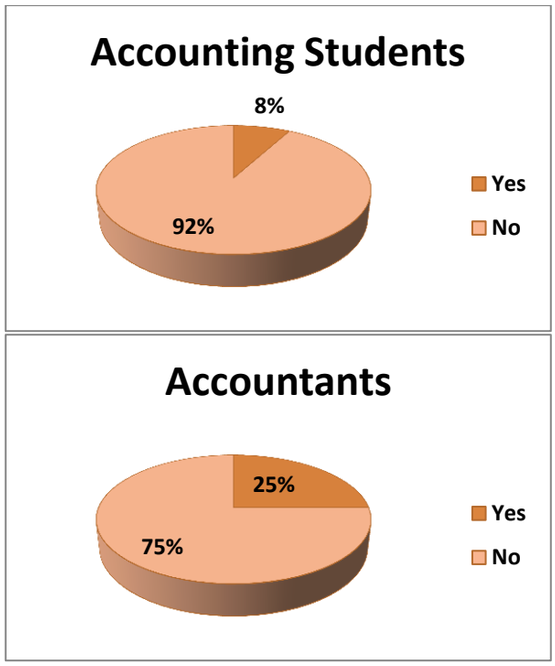


Figure 4.43 Relative importance of generic skills according to all accounting students and all accountants



4.6.7 Other important generic skills

Figure 4.44 Respondents agreeing that further generic skills could have been covered by the survey: all accounting students and all accountants



The majority of both accountants and accounting students tended to believe that the survey questionnaire covered all the generic skills (Figure 4.44). However, a small percentage in each group thought that more skills needed to be mentioned. This percentage was quite significant in accountants, with one quarter (25%) believing more skills could have been mentioned; by contrast, only 8% of accounting students thought that other skill areas could have been added. A few of the extra skills that could have been covered were mentioned by both groups surveyed when they were asked to provide more details about generic skills that were important. Respondents from both groups mentioned decision-making skills, the ability to absorb information and English language skills, with English language skills being mentioned more than once by the accountants as being important.

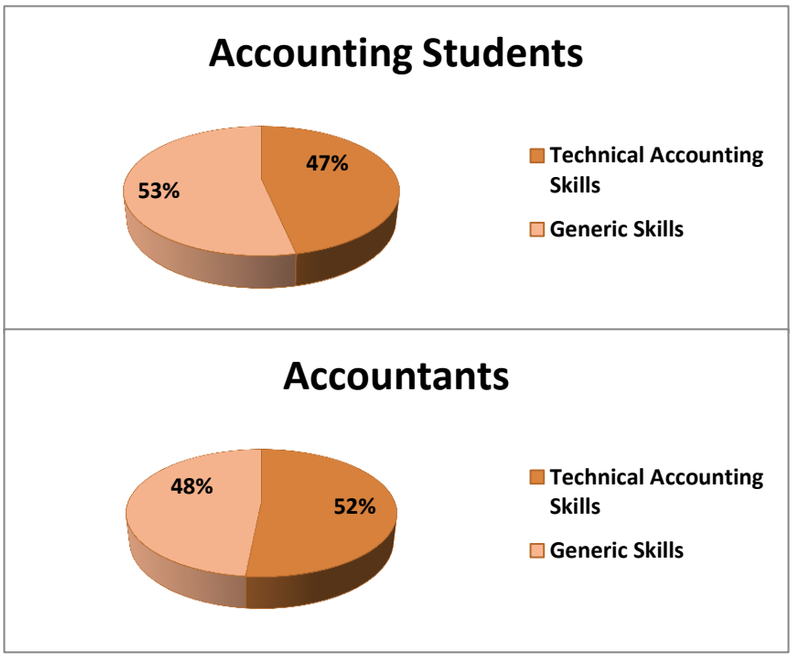
Possibly, the skills described as "the ability to adapt practical skills" (from an accounting student), "the ability to use modern skills" (mentioned by an accounting student), "improvement skills" (mentioned by an accountant) and "self-learning skills" (from an accountant" and "self-development skills" (mentioned by two accountants) could be interpreted as overlapping. Similarly, there may be some overlap between "the ability to act rapidly and thinking skills" mentioned by one of the students and the "creative thinking skills" mentioned by an accountant.

Other generic skills that accounting students listed as being important included the ability to accept others' views; reporting, language and organisational skills; and the ability to complete work rapidly (mentioned twice). Other skills mentioned by

accountants as being important were leadership skills, the ability to be focussed and to arrange work schedules (which could overlap with the organisational skills mentioned by the students), the ability to follow system methodology and the ability to be familiar with more than one problem at once (For more detailed results, see Appendix J).

4.6.8 How generic skills compare in importance to technical accounting skills

Figure 4.45 Comparative importance of technical accounting skills vs. generic skills according to all accounting students and all accountants



Accounting students and accountants differed regarding whether the technical accounting skills were more important than the non-technical or generic skills (Figure 4.45). Accounting students were more likely to state that the non-technical skills were more important, with 53% of those surveyed giving this response and the minority (47%) considering technical accounting skills to be more important. On the other hand, meanwhile, accountants were more likely to consider that technical accounting skills were more important, with 52% putting a greater amount of importance on technical accounting skills compared to the non-technical ones. When the two groups were averaged, this gave a mean of 49.5% who agreed that technical accounting skills were more important and a mean of 50.5% putting more importance on the non-technical or generic skills. This suggests that the response pattern shown by accounting students has the same tendency as that of the mean, with more importance being placed on the non-technical or generic skill sets.

Accountants, however, showed a more even split between those who put more importance on the technical accounting skills and those who considered non-technical skills to be more important, meaning that roughly equal importance was placed on both skill categories by this group. These results for accountants are surprising, given the results of Q6, where both groups placed a lower importance on technical

accounting skills when these skills were ranked against the disaggregated non-technical or generic skill sets.

However,53 % of accountants disagreed to some extent that technical accounting skills were important compared to 57% of accounting students, which is consistent with the results shown here that indicate that accountants are more likely to place a higher level of importance on the technical accounting skills. The results of Q3 are also consistent with the results shown here, as the responses to this question indicated that accounting students were less likely to have used technical accounting skills at university compared to accountants.

4.7 Summary of results: university section (accounting students)

4.7.1 Undergraduate and postgraduate students

Technical accounting skills were those most likely to be rated as important by both groups of students, especially postgraduate students. Presentation skills were consistently rated as being the least important by both groups. Undergraduate students were more likely than postgraduate students to be undecided as to whether a skill was important or not.

Undergraduate students tended to consider that the ability to communicate was most likely to have been covered adequately by their degree course. For postgraduate students, the skills that were the most likely to have been covered adequately were technical accounting skills. Postgraduate students were more likely than undergraduate students to disagree that a skill had been covered adequately by their degree course, while undergraduate students were the group who was most likely to be undecided.

Interpersonal skills and the ability to communicate were the skills most likely to have been used at university by both groups of students. Postgraduate students were more likely than undergraduate students to have used technical accounting skills. Technical accounting skills were the skills that undergraduate students were least likely to have used at university.

Postgraduate students were much more likely to state that no skills were needed in some areas for the workplace. The skill areas that postgraduate students were most likely to consider as being needed at a high or advanced level were teamwork skills and interpersonal skills; for undergraduate students, it was the ability to communicate. Undergraduate students were much more likely to state that they did not know what level of skill would be needed.

The responses of the two groups of students when they rated their skill levels were very similar, with the closest match between the two groups being seen in the area of interpersonal skills. Teamwork skills were perceived as an area of strength by both

groups. Postgraduate students were much more likely to state that they had no skills, being more likely to do so than undergraduate students in all area except the capacity for analysis.

For both groups, the ability to communicate was considered to be the most important skill area, and presentation skills were the least important. Although the perceptions of both groups tended to match very closely, undergraduate students were more likely to be undecided regarding problem-solving skills (whereas postgraduate students were more polarised) and were more likely to rate interpersonal skills as important, whereas postgraduate students were more likely to be undecided or disagree to some degree.

Although most students in both groups considered that the survey had covered all important generic skills, with the postgraduate students being the most likely to do so. English language skills were the only extra skill listed by the postgraduate students but undergraduate students listed a wider range of extra skills.

Both groups of accounting students were more likely to consider the generic skills as being more important than technical accounting skills, with undergraduate students being slightly more likely to do so.

4.7.2 Male and female accounting students

Presentation skills were those most likely to be considered unimportant by both groups, and the ability to communicate being considered the most important by both groups. Male students than female students were more likely to agree strongly that a skill was important.

Interpersonal skills were the most likely to be considered as having been covered adequately by both groups. Technical accounting skills and presentation skills were the skills that both groups of students were most likely to consider as not having been covered adequately by their degree course. The responses of male and female students tended to match very closely, with only minor area of difference appearing regarding the capacity for analysis, with male students being slightly more likely to agree that this skill had been covered adequately.

Both male and female accounting students tended to match quite closely in their responses, except in the area of technical accounting skills, where nearly half the female students agreed somewhat that they used this skill while male students gave a wider range of responses.

Both male and female students were most likely to consider that they had an intermediate level of skills, with this being the most frequent response by both groups

in all skill areas. Interpersonal skills were the most likely to be considered as a strength area by both groups, while capacity for analysis was the least likely. Male accountants were more likely than females to rate their skills as being at an advanced level in all areas, with the greatest being seen in the area of problem-solving skills.

Presentation skills were the most likely to be rated as unimportant by both groups. The skill that tended to be rated as being the most important by both groups was the ability to communicate. Female students were slightly more likely than males to consider teamwork skills to be important. Male students were more likely than females to rate problem-solving skills as being important compared and were less likely than females to consider technical accounting skills as important.

Most male and female students considered that the survey had covered all the important generic skills, with male students being the most likely to do so. The additional skills mentioned by the male students mentioned a wider range of skills than those listed by female students.

Male and female accounting students tended to rate generic skills as being more important than technical accounting skills, with males being more likely to do so.

4.8 Summary of results: accountants

4.8.1 Government organisations and non-government organisations

Overall, the responses of accountants at government organisations and non-government organisations tended to match each other very closely, with little difference between the two groups, with the greatest difference appearing regarding problem-solving skills. Accountants at government organisations tended to rate the capacity for analysis as being the most important, while those at non-government organisations seemed to rate interpersonal skills as being the most important.

A significant number of accountants from both groups either disagreed to some degree or were undecided as to whether technical accounting skills had been covered adequately by their degree course. Although accountants from both groups tended to agree to some degree that all the skills had been covered adequately, a few small differences could be seen between the two groups, with the greatest difference appearing regarding the ability to communicate, with accountants at government organisations being more likely to disagree or be undecided regarding coverage of this skill.

Again, the responses of both groups were very similar. The greatest difference between the two groups was in the area of teamwork skills, with accountants from

government organisations being more likely to disagree that they had used these skills at university.

Accountants in government organisations felt that all skills were needed in the work place at a basic level, at least; however, some accountants at non-government organisations felt that no skills were needed in the areas of technical accounting skills, presentation skills and interpersonal skills.

Accountants at non-government organisations were less likely than those at government organisations to rate themselves as having an advanced level of skill in all areas. Accountants at non-government organisations were also more likely to state that they had no skills in certain areas, specifically presentation skills, problem-solving skills and teamwork skills. Accountant at government organisations, by contrast, never stated that they were lacking any skill set.

Presentation skills were consistently rated as being less important by accountants from both groups. Accountants from government organisations were more likely to be undecided as to the importance of problem-solving skills, whereas those from non-government organisations were more polarised in their opinions. The ability to communicate was rated as being the most important by both groups.

Some accountants from both groups suggested extra generic skills that could have been listed by the survey, with those from government organisations being more likely to do so.

4.8.2 Male and female accountants

Male accountants and female accountants differed strongly regarding teamwork skills and presentation skills, which were rated as being important by the male accountants but not by female accountants. Interpersonal skills and the ability to communicate were rated as being important by both male and female accountants.

Male and female accountants differed greatly as to whether presentation skills had been covered adequately by their degree course, with the majority of male accountants agreeing to some degree that these skills had been covered adequately but all females disagreeing.

Male accountants were more likely than female accountants to agree strongly that they had used the range of generic and technical accounting skills at university, but female accountants never gave the response “strongly agree” regarding any skill set. Female accountants were most likely to be undecided as to whether they had used the skills at university. Technical accounting skills were those that were most likely to have been used at university by both groups.

Female accountants never felt that an advanced level of skill was needed in the workplace, unlike males, where a number of respondents thought that advanced skills were needed in all skill sets.

Presentation skills were those perceived as lacking (i.e. a response of "none") by both groups when male and female accountants were asked to rate their current skill level. Male accountants were more likely to rate their skills at a higher level than their female equivalents in all areas except capacity for analysis.

Male and female accountants differed most greatly regarding the relative importance of technical accounting skills, with male respondents being more likely to rate this skill as being important to some degree but female respondents never agreeing to any degree that this skill was important. The ability to communicate was rated as being the most important overall.

All female accountants agreed that the survey had covered the full range of generic skills but male accountants listed a diverse range of additional skills.

Although both male and female accountants rated technical accounting skills as being more important than generic skills, female accountants were more likely to do so.

4.9 Summary: all universities and workplaces

The skills that were most likely considered to be important by both groups were the ability to communicate and problem-solving skills. Presentation skills were the most likely to be considered unimportant by both groups.

Presentation skills were the skill set that both study groups were most likely to consider as not having been covered adequately by their degree course, but students were more likely to state that their course had indeed covered these skills well. Accountants were more likely to agree to some degree that problem-solving skills had been covered adequately, compared to students, for whom this was the skill set that respondents were most likely to be undecided about. The skills that students were most likely to consider as having been adequately covered by their degree course were interpersonal skills and the ability to communicate; for accountants, they were the capacity for analysis, the ability to communicate and interpersonal skills.

The responses of accountants and students tended to match quite closely. The ability to communicate was the skill that both groups were most likely to have used at university, and presentation skills were the least likely to have been used. Accountants were more likely than students to disagree that they had used interpersonal skills at university.

Students were more likely to respond that no skills were needed in order to get a job, with a small minority of accounting students giving this response in all skill areas. Students were also more likely to state that they did not know the level of skill needed in the workplace. The ability to communicate was the most likely to be perceived as being needed at a high or advanced level by both groups.

Students were more likely to rate themselves as having no skills, with a small percent of students giving this response for all areas. Accountants, however, only rated themselves as having no skills in the areas of problem-solving skills, teamwork skills and presentation skills. Presentation skills were the most likely to be perceived as a weak area by both groups. Interpersonal skills were also the most likely to be considered an area of strength by accountants both groups, with accountants being more likely to rate themselves as having a high or advanced level of these skills compared to accounting students.

The ability to communicate was rated as being the most important by both groups, whereas presentation skills were rated as being the least important by both groups. Both groups also perceived technical accounting skills as being relatively unimportant.

A small percentage in both groups thought that more skills needed to be mentioned by the survey, with accountants being more likely to do so. Both groups mentioned decision-making skills, the ability to absorb information and English language skills as extra skills.

Accounting students and accountants differed regarding whether the technical accounting skills were more important than generic skills. Accounting students were more likely to state that the non-technical skills were more important, while accountants considered technical accounting skills to be more important.

CHAPTER FIVE: DISCUSSION

5.1 Introduction

This survey of accounting students and accountants in the workplace in the Saudi Arabian context has revealed a number of interesting findings regarding how generic (non-technical) skills are perceived by these groups of respondents, with special emphasis placed on communication skills, interpersonal skills, the capacity for analysis (analytical skills), problem solving skills, teamwork skills and presentation skills, as well as technical accounting skills. These results shed a considerable amount of light on the answers to the research questions and are comparable to the findings of previous studies in the literature.

5.2 Accounting students

To answer the research question relating to which generic and technical accounting skills accounting students consider to be important within the context of accounting, the students were disaggregated into several groups for further comparisons and analysis. The study compared the results of undergraduate and postgraduate accounting students and male and female accounting students of Saudi Arabia's main universities.

5.2.1 Undergraduate and postgraduate accounting students

Both groups surveyed had a range of views regarding how well their degree course (i.e. their undergraduate accounting course) had covered the full range of generic skill. Postgraduate students were more likely than undergraduate accounting students to consider that a generic skill had not been covered adequately by their degree course. This may reflect the greater level of experience of the postgraduate accounting students, and compares well with the findings of the literature, which revealed that there is often a gap between the level of various generic and technical accounting skills required in the accounting workplace and the level to which these skills have been covered by the degree course. Both groups of students agreed that communication skills had been covered adequately by their accounting degree course, which may reflect calls made in the past to include this generic skill more within the accounting degree course, and may indicate that these calls have been heeded (e.g. Albrecht & Sack 2000; Henderson, 2001; Forey & Nunan, 2002; Sin *et al.*, 2005; Farrell & Farrell, 2008; Jones & Abraham 2008). Similar results were found for interpersonal skills.

However, the skills that both groups of students were least likely to consider to have been covered adequately by their degree course were the technical accounting skills. This makes an interesting comparison with the findings in the literature review, which overwhelmingly stated that technical accounting skills were often concentrated on to the exclusion of the generic skills, often because these skills are easily covered via traditional teaching methods such as lectures. However, none of the studies in the

literature review investigated the Saudi Arabian context. However, this perceived lack may also reflect the greater propensity of accounting students to consider technical accounting skills as being very important in the workplace, and these students, especially the undergraduate students, may believe that a very high level of these skills are needed. As the literature review revealed, accounting students often perceive technical accounting skills as being very important, in contrast to how these skills are viewed by their potential employers.

The different level of experience between the two groups may also be reflected by the responses regarding which of the generic and technical accounting skills was the most important. The undergraduate accounting students were more likely to be undecided as to whether or not a certain generic skill was important, whereas the postgraduate accounting students were more likely to give a more definite answer, whether this answer was positive (i.e. agreeing to some degree that the skill was important) or negative (disagreeing to some degree that it was important). Additionally, postgraduate students were most likely to consider that teamwork skills and interpersonal skills were needed at a high or advanced level within the workplace, which again reflects the perceptions of employers and accountants in the workplace revealed in the literature (e.g. Borzi and Mills, 2001; Hassal *et al.*, 2005; Bunn *et al.*, 2006; Carr *et al*., 2006; Kavanagh and Drennan, 2008; Wells *et al.*, 2009). It was not recorded whether the postgraduate students had any workplace experience as accountants (e.g. as work over vacations or via internships); if they had, their experience of actually working as an accountant, albeit over the short term, may have given them the experience needed to make a decision regarding whether a generic skill was or was not important. Alternatively, these postgraduate students may also have had more exposure to teaching methods such as case studies, which are widely accepted as being an efficient method of allowing accounting students to learn a range of generic and technical accounting skills (e.g. Sawyer *et al*. (2000)). The reason for this difference between the two groups may be a topic for further research.

Both groups of accounting students, both the postgraduate and undergraduate students, considered technical accounting skills to be important. This reflects the general findings of the literature review, where accounting students and accounting graduates often rated the importance of technical accounting skills very highly, often rating them as being more important than generic skills. However, as the literature review revealed, the employers from whom these graduates are likely to seek a job often rate the non-technical generic skills as being more important within the workplace.

Both groups considered presentation skills to be the least important generic skills, which bears out the general perception of these generic skills by accountants in general.

When both groups of students were asked whether the technical accounting skills or the complete range of generic skills were more the more important, both groups of accounting students were more likely to consider the generic skills as being more important than technical accounting skills, with undergraduate students being slightly more likely to do so.

5.2.2 Male and female accounting students

On the whole, male and female accounting students did not differ greatly from each other in their responses, suggesting that gender does not have any effect on how the skills are perceived. However some small gender differences could be found. Firstly, male accounting students were more likely that they had an advanced level of a skill, doing so more frequently than their female counterparts. Male accounting students were more likely to list problem-solving skills as being important to some degree, whereas female accounting students were more likely than males to agree that teamwork skills were important. This difference may reflect gender differences noted elsewhere, or even gender stereotyping, where men are "supposed to" be more task-oriented and more focussed on solving problems, whereas women are "supposed to" be more relational and to put more emphasis on relationships and interactions with others, which is certainly an aspect of teamwork skills.

Again, both groups of students considered that the generic skills had been covered adequately by their degree course, with technical accounting skills and presentation skills being those least likely to be considered has having been covered adequately. Again, this may reflect the growing trend to put more emphasis on generic skills within the accounting curriculum and the relative unimportance of presentation skills seen in other research (Thenri and Gunn, 1998; Awayiga *et al.*, 2010). However, it is worrying that possibly the technical accounting skills are being overlooked or downplayed within the degree course in the modern context in attempts to include the generic skills to an adequate level.

When asked whether technical accounting skills were more important than the complete suite of generic skills, both groups of accounting students responded that the generic skills were more important, with males being more likely to do so. These contrasts with the findings of other researchers, which tended to find that accounting students put more emphasis on technical accounting skills and downplayed the importance of the generic skills, whereas accountants in the workplace and employers put more emphasis on generic skills.

5.3 Accountants in the workplace

Similar to the accounting students, accountants in the workplace were disaggregated into several subgroups so comparisons could be made between the subgroups. The subgroups were accountants working at government organisations versus those

working at non-government organisations and male accountants versus female accountants.

5.3.1 Government organisations and non-government organisations

On the whole, the responses of accountants at government organisations and their counterparts at non-government organisations matched very closely, which suggests that the demands of accounting in the Saudi Arabian workforce are similar across the board, regardless of whether the accountants work for the government or not. For example, accountants from both groups agreed that communication skills were the most important skills, and that presentation skills were the least important generic skills. Also, both groups of accountants tended to feel that their accounting degree courses had not covered technical accounting skills adequately. This latter finding is in contrast with the findings reported in the literature, which tended to state that in the past – when accountants who are currently in the workplace would have been studying for their accounting degrees at university –accounting degree courses tended to put more emphasis on technical accounting skills rather than on the generic skills. However, this perception by both sets of accountants may reflect actual experience in the workplace, and both groups may think that the level to which they covered technical skill at university was not at the level that they have been required to use on the job. In this respect, the finding of Jackling and Delange (2009) that many employers considered that accountants can learn a number of the necessary technical accounting skills on the job is relevant.

However, a few small differences appeared between the two groups of accountants. First, accountants working for government organisations believed that the capacity for analysis (analytical skills) was the most important of all the generic skills. Accountants from non-government organisations, by contrast, considered interpersonal skills to be more important. This finding could be seen as reflecting a difference in workplace culture between the two groups. Possibly, because the accountants in non-government organisations work for companies that face much fiercer competition (in contrast to those working for government organisations, where the level of competition among organisations is less intense), they have learned the importance of interpersonal skills and the ability to relate to people and influence them when competing for business. To put it plainly, having good interpersonal skills that make it easier for clients and customers to work with your company is good for business and may be a critical point of difference when competing for business. The second point of difference between the two groups may also reflect this different workplace culture, as accountants from government organisations were more likely than their counterparts at non-government organisations to state that interpersonal skills (and presentation skills) were not needed in their current job.

Another difference between the two groups of accountants can be seen in how certain generic and technical accounting skills were used at university or the degree to which they were covered by the accounting degree course. Accountants at government organisations were more likely than their counterparts at non-government organisations to say that their degree course had covered communication skills adequately and were less likely to have used teamwork skills at university. Again, this could be seen as another aspect of the importance of people-related generic skills (communication skills, presentation skills, interpersonal skills and teamwork skills) within non-government organisations, which face more competition. However, it is a moot point whether this lack, or perceived lack, of these skills as part of the degree course of accountants who now work for government organisations made the difference as to where the accountants work today. Did these accountants fail to get work at non-governmental organisations because their degree course did not cover these people-related generic and technical accounting skills or did not provide them with the opportunity to practice them?

However, when accountants in both groups were asked about their current level of skill in a range of areas, every accountant working for a government said that he or she had at least a basic level of all skills. Accountants working at non-government organisations, however, sometimes stated that they were lacking (i.e. had no level of skill) in some skill areas, specifically presentation skills, problem-solving skills and teamwork skills. Again, this may reflect workplace culture: if these generic skills, the majority of which are people-related skills, are more important in non-government organisations in order to gain extra clients, then accountants working for these non-government organisations may consider that their level of skill is lower. Possibly the standard of these skills is higher at non-governmental organisations, which may explain this perception.

One limitation of this part of the study is that it was not recorded how long the accountants in the organisations had been working for the companies or what positions they held. It would be interesting to consider the different responses of accountants at entry-level or low-level positions compared to those at management level or employer level.

5.3.2 Male and female accountants

Unlike the male and female accounting students, the male and female accountants differed greatly in their survey responses. It must be said at the outset that the responses of the female accountants may have been skewed by the small sample size, which is one of the limitations of this study. However, it should also be said that Saudi Arabia, as a traditional Muslim country, is more male-dominated and the ratio of male accountants to female accountants in our survey reflects, to some extent at least, the gender balance within the Saudi Arabian workforce. Again, the position

within the company that each accountant held was not recorded, and if the women surveyed as part of this research held mostly junior positions within the company, this may have had some effect on their responses. It would be interesting to repeat the survey with a larger number of female respondents and to consider the position within the company that each accountant held.

One interesting difference between the female accountants surveyed and the female accounting students is that the female accountants did not consider teamwork skills to be important, even though the male accountants did consider these generic skills to be important in the accounting workplace.

One interesting difference between the male and female accountants in this survey is that the women surveyed never stated that an advanced level of any skill – generic or technical – was needed as part of their job. However, a few male accountants responded that an advanced level of skill was needed in the workplace in each category of generic skill. The reasons for this difference between male and female accountants are not clear. One possibility may be that the women who responded to this survey lack confidence in themselves and thus perceive that the level of skill needed is higher than the level that they currently have (see below).

Another possibility is that the expectations and demands placed upon women are lower in the Saudi Arabian context, and thus the women in our survey are not required to have advanced skills in any area. Yet a third possibility could be that even though the female accountants are using the generic and technical accounting skills at a reasonably high or advanced level, they may not perceive themselves as doing so and thus consider "advanced" skills to be a higher level than they currently have. Again, this measure is subjective and was carried out with only a small sample size. It would be interesting to develop a means of objectively assessing the level of skill needed by these accountants in the workplace and objectively measuring the level of skill help by the accountants responding to our survey (e.g. by examining performance reviews or surveying the peers of these accountants). This could be an area for potential further research.

Another interesting finding was that male accountants were likely to rate their skills as being at a higher level than did their female counterparts in nearly all areas (capacity for analysis/analytical skills was the one exception). Again, the reasons behind this different response are unclear and open to debate. One possible interpretation is that women in this culture may lack confidence and thus perceive themselves as having a lower level of skill, whereas the male accountants may feel no such lack of self-esteem or confidence in their own ability. However, both the male and female accountants in this study were likely to perceive that they had no presentation skills – this was the generic skill area that was most likely to receive a

response of “none” when accountants were asked to rate their current level of skill, indicating that in this area at least, male and female accountants appeared to show an equal lack of confidence. However, it is interesting to note that the female accountants in our survey never considered that an advanced level of any generic and technical accounting skill was needed in the workplace, which indicates that although these female accountants may possibly have perceived that they did not have these skills at an advanced level, they still had these generic and technical accounting skills at a level that suited the requirements of their current job.

Presentation skills, as has been seen in the other subgroups covered by this survey, seemed to be perceived as being unimportant generic skills, or possibly as unnecessary. For both male and female accountants, the generic skill that the respondents were most likely to give the answer “none” for related to this area. Furthermore, female accountants stated that presentation skills were the generic skills that were least likely to have been covered by the accounting degree course. All of the female accountants disagreed that this skill had been covered adequately by their degree course. However, the male accountants in this survey all agreed, at least to some degree, that these skills had been covered by their degree course. This was another major area of difference between these two subgroups of accountants in the workplace.

The skills that both the male and female accountants were most likely to have been covered by their degree course at university were the technical accounting skills. This ties in with the findings of other research that revealed that in the past, technical accounting skills were focussed on in the degree course to the detriment of the generic skills. Obviously, the accountants who are in today’s workforce undertook their studies for their accounting degrees in the past when this heavy on the technical accounting skills was in place, which can easily explain the results seen here.

If one examines the comparison between male and female accounting students versus the comparison between male and female accountants, one can see that the responses of male and female accounting students are more similar, whereas a gender difference can be seen more clearly in the responses of the accountants who are already in the workforce. This may reflect a slight shift in culture over the years that has meant that female accountants are now expected to be on the same level as their male equivalents and to perform equally well and to have the same level and mix of skills, both generic and technical.

5.4 All accountants and all accounting students

The responses of all the accountants surveyed were pooled for analysis, as were the responses of all the accounting students. This allowed a range of trends to be found, both regarding similarities and differences between the two groups to appear.

The clearest similarity between the two groups appeared regarding which generic skills were considered to be important. The generic skills that were considered to be the most important overall by both groups were communication skills and problem solving skills. The generic skills that were considered to be the least important were presentation skills. The reasons as to why presentation skills may have been given this rating are explored above. As has been examined by other researchers, communication skills and problem solving skills are often found in the day-to-day experiences of accountants in the modern business world, and are thus important.

The responses of both groups tended to match quite closely in a number of areas. For example, the responses of accountants and accounting students were very similar regarding the generic skills that they had used while they were at university (communication skills) and the skills that they were least likely to have used at university (presentation skills). Both groups also gave suggestions regarding additional generic skills that the survey could have mentioned, with both groups listing English-speaking skills, the ability to absorb information and decision making skills.

However, differences could also be found between the two groups. The first difference between the two groups related to the skills covered by the degree course. Although many of the responses in this regard were similar, accountants were more likely to consider that their degree course had covered problem-solving skills adequately. Accounting students, on the other hand, were more likely to be unsure about how well this generic skill had been covered. This may reflect a shift in teaching methods over the years, although this survey did not record when the accountants in the workplace had completed their accounting degrees. Recording this information would allow changing trends in the skills taught to accounting students at tertiary level to be tracked, and this would make an interesting area for further research. This potential shift in emphasis may also be illustrated by the different responses of the two groups when they were asked whether generic skills were more important than technical accounting skills: accounting students were more likely to rate generic skills as more important, whereas the accountants were more likely to rate technical accounting skills as being more important.

But by far the most striking difference between the two groups was regarding the skills that were needed to get a job as an accountant and their perceived skill level. This is, in many ways, a result of the experience. Clearly, accountants have more experience of the accounting place and which skills are needed within it. Students, on the other hand, do not. This is illustrated best by the way that students were much more likely to be unsure about the skill level needed. This could be interpreted as a deficiency in the tertiary education provided to accounting students, indicating that degree courses are not giving accounting students an accurate picture of the working

world. On the other hand, the difference could simply arise from actual experience, with the implication that these accounting students could change their beliefs over time with actual workplace experience. In this regard, a longitudinal study tracking changes on beliefs and perceptions over time of the accounting students as they move from university into the workplace and up the corporate ladder would be interesting.

However, this uncertainty could also arise because the university degree course studied by the students has not given them a clear indication of what is needed in the workplace. This deficiency can and should be addressed by those providing the degree course, and can easily be achieved through the use of case studies.

It is very interesting to note that accountants in the workplace put more importance on technical accounting skills (see Section 4.6.8), whereas the accounting students put more importance on the generic skills. This is contrary to the findings in the literature elsewhere, which has tended to find the reverse trend, namely that accounting students tended to rate technical accounting skills as being more important while accountants considered generic skills to be more important. The reasons for this contrary finding are unclear. One possibility could be that the findings of this present research reflect the Saudi Arabian context, which is quite likely to differ from the context of most other studies, namely a Western context. However, this finding does contrast with the results shown in Section 4.6.6, where technical accounting skills were rated as being less important than certain generic skills by both groups (accounting students and accountants). This inconsistency is highly interesting, but may be affected by the perception of presentation skills, which are part of the generic skill set but were rated as being the least important generic skills by both groups. Further research is possibly needed to verify this finding and to investigate the reasons for this difference between the Saudi Arabian context and the Western context

5.5 Summary

Experience may play a part in how the different skills sets are perceived. For example, differences could be seen between the postgraduate students and the undergraduate students, and between the accountants in the workforce and the accounting students, particularly regarding the technical accounting skills. These findings seemed to suggest that more experienced respondents (accountants and postgraduate students) put more emphasis on this skill set. This appears to contrast with the general findings of the literature, namely that employers are more likely to consider generic skills as being more important than technical accounting skills, unlike accounting students. Culture may play a role here, as this is one of the first studies investigating the Saudi Arabian context.

The cultural context may also be behind gender differences that appeared when male and female accounting students, and male and female accountants were compared.

However, the responses of female accountants seemed to be skewed by having a small sample size. While this, in itself, reflects a more patriarchal culture, it would be interesting to discover what a similar survey of female accountants with a larger sample size would reveal.

Presentation skills were rated as being of low importance by the great majority of groups surveyed. At the other end of the spectrum, communication skills and problem solving skills were ranked as being very important.

CHAPTER SIX: CONCLUSIONS, RECOMMENDATIONS, AND FUTURE RESEARCH

6.1 Introduction

This chapter summarises the findings of this research, and presents the related conclusions and the recommendations arising from this research. The chapter also presents some directions for further research.

Numerous researchers have noted the gap between the skills held by recent accounting graduates and the skills necessary to get a job as an accountant, especially the generic and technical accounting skills. This gap has been particularly highlighted in the context of the changing face of accounting in the modern world of computerisation and increasing globalisation. This shift has meant that generic and technical accounting skills have become increasingly more important and frequently form part of the day-to-day work of an accountant. Technical accounting skills and generic skills that are frequently mentioned as being important for accountants include communication skills, capacity for analysis, problem solving skills, teamwork skills, interpersonal skills and presentation skills within technical accounting skills.

Although this trend has been noted frequently in Western countries (e.g. the United States, England and Australia), very few studies have focussed on the Middle East and even fewer, if any, on Saudi Arabia. This study aimed to fill this gap in the knowledge.

6.2 Research summary

This study aimed to explore the perceptions of accounting students and accountants in the workplace in Saudi Arabia regarding these generic and technical accounting skills, in order to find any similarities and differences between them. Different subgroups of accounting students and of accountants in the workforce were analysed to find further patterns and trends within them. These subgroups included postgraduate vs. undergraduate accounting students male vs. female accounting students, non-government organisations vs. accountants in government organisation, male vs. female accountants and accountants in the main employers in Saudi Arabia. The research had a cross-sectional mixed-methods design delivered via a questionnaire to 120 accounting students and 51 accountants.

6.3 Findings of research questions

6.3.1 Research question 1a: skills considered important by accountants and accounting students

The first research question had three subsections, the first of which is addressed here:

Question 1a: What generic and technical accounting skills do accounting students at the six main universities and accountants at the nine main workplaces in Saudi Arabia consider important?

To answer the first of the research questions (the generic and technical accounting skills that accounting students in all groups in Saudi Arabia (male and female accounting students, postgraduate and undergraduate accounting students, and students at three of the principal universities in Saudi Arabia) consider to be important are the communication skills, although postgraduate accounting students also considered technical accounting skills to be important. Other skills that were considered to be important to accounting students in Saudi Arabia were interpersonal skills and, to a lesser degree, teamwork skills. Overwhelmingly, presentation skills were seen as being the least important of all the generic skills. However, as the definition of presentation skills is somewhat imprecise, this finding could warrant further investigation. Different results could have been obtained depending on how presentation skills were defined. For example, if the students responding to this survey considered presentation skills to cover the use of presentation software such as PowerPoint, this could produce different results from what could have been revealed if the students surveyed as part of this research considered presentation skills to cover areas such as the use of body language and oral presentation. It is unclear whether the students surveyed would have considered the latter skills as coming under the definition of communication skills instead, a generic skill area which all students considered to be important.

Focussing on accountants in the workplace to continue answering our first research question, overall, accountants in the workforce in Saudi Arabia tend to consider problem solving skills and communication skills (the ability to communicate) as being the most important skills. Again, presentation skills were considered the least important of all the generic skills.

This research, unlike previous findings, did not find a wide gap between accountants in the workforce and accounting students. This may indicate that the methods used to teach the principles of accounting may reflect actual practice more closely. As the literature review revealed, teaching methods involving case studies that reflect the real world are being used within the accounting degree curriculum more frequently, giving accounting students more of a “taste” of the working world.

However, like earlier research, a gap did appear between accounting students and accountants in the workforce when the two groups were asked whether technical accounting skills or generic skills were the more important. In Section 4.6.8, the accounting students were more likely to state that the generic (i.e. non-technical) skills were the most important. The accountants in the workforce, however, were more likely to state that the technical accounting skills were more important.

However, in Section 4.6.6, both groups tended to rate technical accounting skills as being of lower importance, with accountants being slightly more likely to rate technical accounting skills as being less important. Possibly, these inconsistent results may have been affected by how all the generic skills were considered jointly – including presentation skills, which were consistently as being of lesser importance – in Section 4.6.8, whereas the different skills were disaggregated in Section 4.6.6.

This difference in how technical versus generic skills are perceived by the two groups may reflect a number of things. Firstly, it may reflect the inexperience of accounting students. Generic and technical accounting skills, by their nature, can be learned in other areas than accounting and can be applied in general life. Therefore, the accounting students may be familiar with these skills already. By contrast, technical accounting skills are more specialised and are thus less familiar to the students. The fact that they are unfamiliar may magnify their importance in the eyes of the accounting students, especially if they feel that these technical accounting skills are important to get a job. Secondly, this difference between accountants in the workforce and accounting students may also reflect the shift in the modern accounting world. Although it was not recorded how long the accountants already in the workforce had been employed as accountants, we can assume that they may have been there before the modern shift to computerisation/automation of many accounting tasks and the push for globalisation. These accountants may have had to learn the generic and technical accounting skills on the job, which would magnify the importance of these skills in their perception. Furthermore, the accountants in the workforce may also know that many of the generic and technical accounting skills are good for business, especially generic skills such as communication skills and interpersonal skills.

The lack of experience of the accounting students can also be seen in some of their other responses. For example, accounting students were more likely than accountants in the workplace to state that they were unsure what level of skill would be needed in order to get a job, and this response applied in all generic skill areas. Similarly, accounting students were more likely than accountants in the workplace to say that a skill was not needed at any level. Accountants naturally would be more aware of the level of skills needed in the workplace, and would know by experience that all of the generic and technical accounting skills are needed.

Overall, the responses of accounting students and accountants tended to match quite closely, and the differences between them were not huge, apart from those relating to the lack of experience and the perceived importance of technical accounting skills versus generic skills.

The most striking finding relating to this research question was the perceived importance – or, more precisely, the lack of importance – of presentation skills. All subgroups of accounting students (male and female, post graduate and undergraduate, and students at the three main universities in Saudi Arabia) and all subgroups of accountants in the workforce (male and female, government organisations and non-government organisations in Saudi Arabia) seemed to rank presentation skills as being the least important of the generic skills. Furthermore, presentation skills were often the skill set least likely to have been covered at university and the skill set that was most likely to be perceived as not being necessary in order to get a job as an accountant. The reasons for this will be explored below.

First of all, there may be a lack of clarity regarding how presentation skills are defined. Presentation skills show a great degree of overlap with some of the skills that were considered important by all groups of accountants and accounting students surveyed. This could particularly be the case for what are known as "oral presentation skills", which include the ability to speak clearly and confidently when addressing a group. The overlap here with communication skills is obvious, and this confusion may have influenced the responses of the accountants and accounting students in the survey undertaken for this research. Similarly, presentation skills may also overlap with interpersonal skills and even with teamwork skills.

Secondly, presentation skills may indeed be unimportant in the modern accounting workplace. This is especially the case if presentation skills are taken as referring only to the use of presentation software such as PowerPoint, the use of colour in pictures and diagrams, and layout skills. If an accountant (or an accounting student) has a good level of communication skills (e.g. clear writing, clear speaking, etc.) and good interpersonal skills and teamwork skills (which would mean that he or she feels more comfortable with impromptu question and answer sessions as part of a presentation, plus the ability to relate well to the group to whom they are making the presentation), he or she may not need these more sophisticated means of presentation, and would be able to make his or her point using simpler methods, such as paper hand-outs in black and white print or diagrams drawn on the spot using a whiteboard or similar. Furthermore, if an accountant does most of his or her work in a group context and their day-to-day work does not involve regular presentations to a group, this set of generic skills could easily be perceived as being unimportant compared to the skills that are used daily in routine work.

It is possible that culture could have influenced the relative unimportance of presentation skills, especially where female accountants in the workplace are concerned (who, we can presume, are more likely to be older than the female accounting students). Sometimes, presentation skills are understood to include aspects such as grooming, confident body language and confidence when speaking to

a group of people. If an older woman has had a more conservative and traditional upbringing, she may have been trained to keep silence and to listen when men are speaking, to show modesty and respect, etc. This would mean that she would feel less confident when addressing a group, especially if this group is predominantly made up of men. Furthermore, if a woman has a strictly prescribed dress code (which could be prescribed by society, religious authorities or the workplace itself) then the grooming aspects of presentation skills become irrelevant. The men may also face a similar situation, depending on the ethos of their individual workplace. To take one very down-to-earth example, a male accountant in a Western workplace who made a presentation while unshaven would be perceived by his peers as being unprofessional and as having a low level of presentation skills as regards grooming.

Culture could also have an influence in another way. If Saudi Arabian society and the way of conducting business put more emphasis on personal relationships and face to face contact rather than on formal presentations, this would also explain the perceived unimportance of presentation skills.

6.3.2 Research question 1b and c: how well the generic and technical accounting skills were taught to and used by current accounting students and accountants who are already working

The relevant research question 1 was as follows:

> b How well are the generic and technical accounting skills taught to current accounting students at the six main Saudi universities and how well were they taught to accountants who are already working in the nine principal workplaces?
>
> c How well are generic and technical accounting skills used by accounting students during their current studies and how well were these skills used by practising accountants during their previous studies at university?

A range of different responses were recorded by the accountants and the accounting students surveyed in this research. Overall, all the skills, both generic and technical, seem to have been covered reasonably well, for the most part. However, some subgroups perceived certain gaps in their education and considered that certain skills had not been addressed adequately.

Overall, the skill set that current accounting students were most likely to report as not having been well covered were technical accounting skills, which contrasts greatly with the findings in the literature review. Accountants in the workforce were also most likely to state that technical accounting skills had not been covered by their degree course.

As mentioned above, presentation skills were also listed by many groups of accountants and accounting students as having been inadequately covered by the degree course. Some of the reasons for this have been explored in the previous section that discussed why presentation skills may be considered unimportant – and therefore not worth covering as part of the degree course – for accountants in the Saudi Arabian context. However, it is worth noticing that presentation skills were not totally ignored within the degree course or in the workplace, with some respondents in all categories mentioning that presentation skills had been used at university and had been covered by the degree course. In this regard, it is worth noting that all the female accountants in our survey stated that their degree course had not covered presentation skills adequately, whereas a significant proportion of the male accountants did. The possible cultural reasons for this finding have already been explored.

6.3.3 Research question 2: The level of important generic and technical accounting skills required versus the level of skill respondents possess

Question 2 had two subsections:

- **a-** What specific skill levels do accounting students at the six main Saudi universities require to get a good job, and what skills are required by accountants such as CPAs in their current positions at the nine main workplaces in Saudi Arabia?
- **b-** Which specific generic and technical accounting skills do accounting students at the six main Saudi universities and accountants at the nine main workplaces in Saudi Arabia have?

A range of different responses were recorded regarding the skills required and the level of skill possessed, as described in the sections in this chapter discussing accounting students and accountants in the workplace. Some of the more striking findings relating to this research question are as follows:

Accounting students, especially undergraduate students, were more likely to be unsure of the level of generic and technical accounting skills needed in the workplace. This could be because their degree course has failed to give them a true indication of what the day-to-day responsibilities of an accountant in the modern world is like, and the use of case studies and the like could address this lack.

Female accountants seldom perceived themselves as having an advanced level of skill in any area, except the capacity for analysis, where they rated themselves as having a higher level of skill than their male counterparts did. However, this was matched by their perceptions of the level of skill needed in the workplace: the female accountants in our survey never considered that an advanced level of any generic skill was needed in the workplace.

Accountants working at non-government organisations were more likely to state that they had a higher level of skill in all areas, and did so more frequently than their equivalents working at government organisations. However, accountants working at government organisations never stated that they were lacking in any generic skill area, whereas a very small and possibly insignificant minority of accountants working in non-government organisations said that they were completely lacking in certain skill areas.

Overall, the generic skills that was most frequently perceived as being needed at a higher level in the workplace by all subgroups of accountants and accounting students were teamwork skills, interpersonal skills and the ability to communicate.

Presentation skills were the skills that were considered as being needed at a lower level in the workplace, and were also the skills that accountants were most likely to perceive themselves as having at a lower level.

6.3.4 Research question 3: Comparative importance of the different generic and technical accounting skills and other possible generic and technical accounting skills

Question 3 had three subsections as follows:

- **a-** How are the generic and technical accounting skills ranked in their degree of importance relative to each other, and does this ranking differ between accounting students and accountants?
- **b-** Which kind of generic and technical accounting skills are seen as essential but have been omitted from the questionnaire?
- **c-** How do generic skills compare in importance to technical accounting skills, and does this perception differ between accounting students and accountants?

When our survey respondents were asked to state whether generic skills or technical accounting skills were more important, accounting students and accountants differed regarding whether the technical accounting skills were more important than generic skills. Accounting students were more likely to state that the non-technical skills were more important, while accountants considered technical accounting skills to be more important. On the whole, this does appear to confirm the findings in of the literature review. However, when the subgroups of accounting students were analysed separately, different results appeared, and many of the subgroups (e.g. postgraduate and undergraduate accounting students) seemed to rate generic skills as being more important than technical accounting skills. Furthermore, as can be seen in the results in Section 5.6.6 and 5.6.8, where the effect of disaggregating the generic skills may have influenced the respondents' answers and produced conflicting results. These inconsistent results could be a result of survey size, and warrants further research to resolve this inconsistency.

Some differences in the response to this survey question appeared between several subgroups. For example, female accountants were more likely to rate technical accounting skills as being more important than generic skills compared to their male counterparts.

Although not all respondents listed extra generic skill that the survey could have covered, many did. Some of the additional generic skills that were listed included decision-making skills, the ability to absorb information and English language skills. The latter skill (English language skills) is a clear reflection of the increasing level of globalisation in the modern accounting workplace.

6.4 Summary of the key findings

The clearest similarity between the accountants and the accounting students appeared regarding which generic and technical accounting skills were considered to be important. The generic skills that were considered to be the most important overall by both groups were communication skills and problem solving skills. The generic skills that were considered to be the least important were presentation skills. The overall unimportance of presentation skills was a very striking finding of this research.

The responses of both groups tended to match quite closely in a number of areas. For example, the responses of accountants and accounting students were very similar regarding the generic skills that they had used while they were at university (communication skills) and the skills that they were least likely to have used at university (presentation skills). Both groups also gave suggestions regarding additional generic skills that the survey could have mentioned, with both groups listing English-speaking skills, the ability to absorb information and decision making skills as other generic skills that are important for accountants.

However, differences could also be found between the two groups. The first difference between the two groups related to the skills covered by the degree course. Although many of the responses in this regard were similar, accountants were more likely to consider that their degree course had covered problem-solving skills adequately. Accounting students, on the other hand, were more likely to be unsure about how well this generic skill had been covered.

The most striking difference between the two groups was regarding the skills that were needed to get a job as an accountant and their perceived skill level. Accounting students were much more likely to be unsure about the skill level needed or to say that no skills were needed in a certain area. This is possibly a measure of the lack of experience of the accounting students, or could indicate a deficiency in their accounting degree course.

This research also revealed some inconsistent results. When asked to rank the generic skill separately according to importance relative to each other and to technical accounting skills, both groups tended to rate technical accounting skills as being less important, with accountants being slightly more likely to do so. However, when survey respondents were asked whether the suite of generic skills as a whole were more important than the technical accounting skills, the accountants tended to consider that technical accounting skills were more important, whereas the reverse response was given by the accounting students. This inconsistency is intriguing and warrants further investigation. One possibility that may explain it is the influence of presentation skills on the relative importance of generic skills as a whole.

6.5 Recommendations

Those developing the curriculum for accounting courses provided by the main universities in Saudi Arabia should collaborate more closely with workplaces such as the ones where the survey respondents in this study were employed in order to give students a more realistic picture of the demands of the modern Saudi Arabian workplace. As part of this curriculum development, tertiary education providers should aim to ensure that accounting students are aware of the level of the generic and technical accounting skills needed in the workplace, as students were much more likely than accountants to state that they did not know the level of skill needed in all areas, or even that no skills are needed in a particular are needed.

It is important when designing the accounting curricula that the generic and technical accounting skills are presented appropriately and in context. Case studies are frequently mentioned in the literature as being a suitable method for doing so. However, the low importance of presentation skills found in this study suggest a further recommendation, namely that the case studies presented to students in Saudi Arabia should be culturally appropriate; case studies using a Western example may put more emphasis than is warranted on presentation skills.

The researcher also recommends that universities in Saudi Arabia develop the use of group work as part of the accounting degree course as a means of developing interpersonal skills and teamwork skills.

A further recommendation arises from the results in Section 4.6.8, which shows that accountants in the workplace seemed to place more importance on technical accounting skills compared to generic skills, whereas the accounting students considered the generic skills to be more important. This is contrary to the findings in the literature regarding accountants and accounting students in Western countries, so it is recommended that further studies be undertaken in the Saudi Arabian context to find out if this is indeed a culture-specific feature. However, the contrary findings of Section 4.6.6 should also be borne in mind here, as in this part of the survey,

accountants were more likely to rate technical accounting skills as being less important compared to some generic accounting skills (but not others) whereas accounting students seemed to consider technical accounting skills as somewhat more important.

The author also recommends that the government of Saudi Arabia could consider drawing on the findings of this research and others to improve the delivery of the accounting curriculum in the state-backed universities so the needs of accounting students and of the accounting workplace are catered to adequately.

Lastly, more research in the Saudi Arabian context is needed to verify the findings of this thesis and to give a better picture of accounting in this country, as described below.

6.6 Further research

A number of potential areas for further research have been uncovered by this study, and the author recommends that some of these avenues be pursued. These potential areas are outlined below.

First of all, research should be undertaken to rectify one of the limitations of this study, if this is possible. Specifically, similar surveys should be carried out with a larger sample size for the group of female accountants, if it is possible for researchers to find a big enough sample population (possibly by considering more workplaces or smaller one) and to overcome the cultural/religious restrictions on male–female interactions, for example by having female researchers interview the female accountants, or by carrying out the interviews with female researchers in the presence of a male relative as a chaperone.

More research could also be undertaken to clarify the inconsistency revealed by Sections 5.6.6 and 5.6.8, one of which indicated that accountants put more importance on technical accounting skills relative to generic skills than accounting students did, while the other section seemed to suggest the reverse trend.

Another area that could be explored in further research could relate to the position held by an accountant within the company and how this affects their perception of generic and technical accounting skills. It would be interesting to examine whether accountants in entry-level or junior positions within a company perceive the generic skills and the technical accounting skills differently compared to accountants in management or senior positions.

Similarly, it would be interesting to explore the skills that are considered important by the employers of accountants (e.g. company CEOs) in the Saudi Arabian context,

especially the generic and technical accounting skills: what skills are needed by accountants in this context and culture, and what skills are the important ones that could be the deciding factor as to whether an applicant is or is not chosen for a position.

Still another possible area for further research would be to compare the responses of accountants in Saudi Arabia who studied their accounting degree within that country compared to those who graduated from a university in another country, especially from a university in a Western country. It would be particularly interesting to see how these two potential subgroups of accountants or accounting students perceive technical accounting skills. For example, a Western university is likely to assume that the accounting students taking their degree course will be working in a Western society and may thus give the students case studies involving interest, such as making decisions regarding investments or taking out mortgages. In the Saudi Arabian context, where interest is forbidden by the tenets of Sharia law, these skills would be irrelevant.

It would be equally interesting to investigate the perceptions of accountants who studied for their degree within Saudi Arabia but who work overseas, particularly if they work in a non-Muslim country. It may be hard to find a large enough study population, but it would nevertheless be fascinating.

Along similar lines, further research could investigate whether the findings presented here for accountants in Saudi Arabia hold true for other countries that encourage Islamic banking, such as Qatar, Kuwait and the United Arab Emirates. This research could be combined with that described in the previous two paragraphs to discover whether there is a difference in how technical skills are perceived by and taught to accountants working under the unique circumstances of Islamic banking and Sharia law.

Future research could also look into the types of generic and technical accounting skills lacking in accounting graduates.

6.7 Conclusions

Although there are some differences between the perceptions of accountants and accounting students regarding the importance of generic and technical accounting skills in the workplace, many of these differences could stem from lack of experience. This gap could easily be addressed by those who develop the accounting curriculum provided by the Saudi Arabian universities, especially by including case studies and the like for students to work on. However, these case studies should be derived from the Saudi Arabian context in order to ensure that they are relevant. This is especially

the case, given the low importance placed on presentation skills by all survey respondents.

Further research is also needed to address further gaps in the knowledge about accounting in Saudi Arabia. This study has opened up some exciting possibilities for research in this context and culture that are worthy of more investigation.

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APPENDIX A: MAP OF SAUDI ARABIA

Map of Kingdom of Saudi Arabia
(Source: Central Intelligence Agency (CIA, 2011))

APPENDIX B: COVER LETTER FOR THE QUESTIONNAIRE (ENGLISH VERSION)[4]

Participant Information Sheet

I am asking you to participate, by completing this questionnaire, in a study about the technical accounting and generic skills required for accounting students and accountants to be successful in their future careers. It will take ten minutes to complete this questionnaire by putting an 'X' at the appropriate answer in each section. The last question does require a brief written response. There are questions for accounting students related to the university, and for accountants related to the workplace in Saudi Arabia, to establish a statistical dataset which will then be used to make comparisons. In this questionnaire the questions deal with your need for important technical accounting and generic skills in the university if you are an accounting student, and in the workplace if you are an accountant in Saudi Arabia.

The researcher may meet participants again, after the initial data collection, in order to clarify or expand on their answers.

Each participant will receive a summary of the findings of this study when the researcher completes the investigation.

Participation in this study is voluntary and you have the right not to answer any question or item, or to withdraw your consent and terminate participation at any time.

The researcher needs only the participants' email addresses to contact them, once the report has been completed and graded. There is no other personal identifier information requested. We will ensure the confidentiality of all information provided in your response.

****

Please read the instructions for each of the following questions. Review the response options carefully before you mark your answers. There are no right or wrong answers. Answer the questions as quickly and honestly as possible. Please answer all the questions in the questionnaire.

Please complete this questionnaire.

The questionnaire presents a series of questions related to the generic and technical accounting skills that may be important for you to be successful in your future work. The answers will be very useful in helping to improve the acquisition of important generic and technical accounting skills in your studies if you are an accounting student and in your work if you are an accountant.

---

[4] This appendix and those that follow contain exact copies of the questionnaire and/or cover letter as handed to the survey respondents and have not been edited.

All information received from you will be used for statistical purposes only and will be treated as completely confidential. No individual questionnaire will ever be identified in any material published from this survey nor will any of the data obtained be passed on to any other party.

APPENDIX C THE QUESTIONNAIRE (ENGLISH VERSION)

Occupation: ***Gender:*** **Male** ▢**Female** ▢

Accounting Student ▢ **((Postgraduate** ▢ **Undergraduate** ▢ **))**

Accountant ▢ **((Government** ▢ **Non-Government** ▢**))**

Email	
This will only be used to provide a summary of the findings of this research.	

Q1/ Questions about the suite of generic and technical accounting skills

This question for both accounting student an accountant

Please use the following scale by putting X at the best answer in your opinion:

A. ***"This skill is important".***

Do you strongly agree **(1),** agree **(2),** Agree somewhat **(3),** Undecided **(4),** Disagree somewhat **(5),** Disagree **(6),** strongly disagree **(7)?** (Please tick one answer per skill)

GENERIC SKILLS	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. ***Ability to communicate***							
2. ***Interpersonal skills***							
3. ***Problem solving skills***							
4. ***Capacity for analysis (e.g. report)***							
5. ***Teamwork skills***							
6. ***Presentation skills***							

Technical accounting skills							

B. ***How well were these skills covered in your degree?***

Exceptional **(1),** excellent **(2),** very well **(3),** well **(4),** average **(5),** poor **(6),** very poorly **(7)?** (Please tick one answer per skill)

GENERIC SKILLS	1	2	3	4	5	6	7
1. *Ability to communicate*							
2. *Interpersonal skills*							
3. *Problem solving skills*							
4. *Capacity for analysis (e.g. report)*							
5. *Teamwork skills*							
6. *Presentation skills*							
Technical accounting skills							

C. ***How would you rate the use of these skills during your studies in the university?***

Exceptional **(1),** excellent **(2),** very well **(3),** well **(4),** average **(5),** poor **(6),** very poorly **(7)?** (Please tick one answer per skill)

GENERIC SKILLS	1	2	3	4	5	6	7
1. *Ability to communicate*							
2. *Interpersonal skills*							
3. *Problem solving skills*							
4. *Capacity for analysis (e.g. report)*							
5. *Teamwork skills*							
6. *Presentation skills*							
Technical accounting skills							

Thank you! We greatly appreciate your assistance in this research.

Q2. For accounting student only:

In your opinion, What level of generic and technical accounting skills are required for you to get the job you want, and what level do you feel you currently have?

(Put (X) in the box that you feel the best answer in the two tables below).

Level required

- **At what level is/are each of the listed skills required for you to get the job you want?**

Generic skills	Not required	Basic	Inter-mediate	High	Advanced	Don't know
1. Ability to communicate						
2. Interpersonal skills						
3. Problem solving						
4. Capacity for analysis						
5. Teamwork skills						
6. Presentation skills						

Technical accounting skills						

Level you have

- **What level of each skill do you feel you currently have?**

Generic skills	None	Basic	Inter-mediate	High	Advanced
1. Ability to communicate					
2. Interpersonal skills					
3. Problem solving					
4. Capacity for analysis					
5. Teamwork skills					
6. Presentation skills					

Technical accounting skills					

Q2. For accountant only:

In your opinion, What level of generic and technical accounting skills are required in your current job, and what level do you feel you currently have?

(Put (X) in the box that you feel the best answer in the two tables below).

Level required

- **At what level is/are the skills listed required in your current job?**

Generic skills	Not required	Basic	Inter-mediate	High	Advanced	Don't know
1. Ability to communicate						
2. Interpersonal skills						
3. Problem solving						
4. Capacity for analysis						
5. Teamwork skills						
6. Presentation skills						

Technical Accounting skills						

Level you have

- **And what level of each skill do you feel you currently have?**

Generic skills	None	Basic	Inter-mediate	High	Advanced
1. Ability to communicate					
2. Interpersonal skills					
3. Problem solving					
4. Capacity for analysis					
5. Teamwork skills					
6. Presentation skills					

Technical Accounting skills					

Q3.A. Ranking of Generic and Technical Accounting Skills

Both accounting student and accountant

Listed below are the 7 skills that have been considered as most important for professional development in both the university and the workplace. Please rank these 7 skills in order of importance according to your opinion **from (1) as the most important skill to (7) as least important skill:**

Most important **(1),** Very important **(2),** Important **(3),** Somewhat important **(4),** Not very important **(5),** Less important **(6),** Least important **(7):**

Generic Skills	Ranking
1. Ability to communicate	
2. Interpersonal skills	
3. Problem solving	
4. Capacity for analysis	
5. Teamwork	
6. Presentation skills	

7. Technical Accounting Skills	

B. General questions about generic skills

- Answer the questions in the box:

Are there any important skills missing from these questions above?	**Yes / no**
If yes, please detail them	

C. Overall, how important do you consider the technical accounting skills to be compared with the other skills

- Please put a percentage in each box adding to 100%.

Technical Accounting skills	
Generic skills	
Total	100%

Thank you for filling in the questionnaires!

APPENDIX D: COVER LETTER (ARABIC VERSION)

ورقة المعلومات للمشارك

إنني أطلب منك أن تشارك، من خلال استكمال هذا الاستبيان ،في دراسة حول المهارات التقنية للمحاسبة والمهارات العامة المطلوبة لطلاب المحاسبة والمحاسبين للنجاح في حياتهم المهنية في المستقبل. هذه المشاركة سوف تستغرق عشر دقائق لاستكمال هذا الاستبيان من خلال وضع علامة ✖ على الإجابة المناسبة في كل مقطع. السؤال الأخير يتطلب إجابة قصيرة مكتوبة. هناك أسئلة لطلاب المحاسبة المتعلقة بالجامعة ،وذات الصلة للمحاسبين في مكان العمل في المملكة العربية السعودية، لإنشاء مجموعة البيانات الإحصائية التي سوف تستخدم لإجراء المقارنات. في هذا الاستبيان عدة أسئلة توافق حاجتك للحصول على أهم المهارات العامة ومهارات التقنية للمحاسبة في الجامعة إذا كنت طالب محاسبة ، أو مقر العمل إذا كنت محاسبا في المملكة العربية السعودية.

قد يلتقي الباحث المشاركين مرة أخرى، بعد جمع البيانات الأولية، من أجل توضيح أو التوسع في إجاباتهم.

سوف يحصل كل مشارك على ملخص لنتائج هذه الدراسة الباحث عند اكتمال التحقيق.

المشاركة في هذه الدراسة هو طوعي و لديك الحق في عدم الإجابة عن أي سؤال أو خانة ، أو لسحب موافقتك وإنهاء المشاركة في أي وقت.

الباحث يحتاج فقط إلى عناوين البريد الإلكتروني للمشاركين للاتصال بهم حينما يتم الانتهاء من التقرير وعرض نتائج البحث.
الباحث لا يريد أي من المعلومات الشخصية للمشارك. وسوف يضمن سرية جميع المعلومات الواردة في ردكم.

****

يرجى قراءة الإرشادات لكل من الأسئلة التالية. يرجى اختيار الأجوبة بعناية قبل وضع إجاباتك.لا توجد إجابات صحيحة أو خاطئة.أجب على الأسئلة بسرعة وبصدق ممكن.الرجاء الإجابة على جميع الأسئلة الواردة في الاستبيان.

يرجى استكمال هذا الاستبيان.

الاستبيان يعرض سلسلة من الأسئلة تتعلق بالمهارات العامة ومهارات التقنية للمحاسبة التي قد تكون مهمة بالنسبة لك لتكون ناجحا في عملك في المستقبل. الأجوبة سوف تكون مفيدة جدا في المساعدة على تحسين اكتساب المهارات العامة المهمة في دراستك إذا كنت طالب محاسبة و في عملك إذا كنت محاسبا.

سيتم استخدام جميع المعلومات التي وردت منك **لأغراض إحصائية فقط** ، وسوف تعامل على أنها **سرية تماما**. ليس هناك أي استبيان فردية سوف تعرض إلي النشر في هذه الدراسة ولن يتم تمرير أي من البيانات التي تم الحصول عليها إلى أي طرف آخر.

APPENDIX E: THE QUESTIONNAIRE (ARABIC VERSION)

الاستبيانة

المهنة: ***الجنس:*** **((ذكر ▢ انثى ▢))**

طالب/ة محاسبة ▢ ((بكالوريوس ▢ دراسات عليا ▢))

محاسب/ة ▢ ((حكومي ▢ غير حكومي ▢))

أيميل	
يستخدم هذا الأيميل لتوفير ملخص كامل لنتائج البحث للمشارك	

السؤال الأول / مجموعة أسئلة حول المهارات العامة ومهارات التقنية للمحاسبة ؟

((هذا السؤال موجه لطلاب المحاسبة والمحاسبين))

الرجاء استخدام الجدول التالي عن طريق وضع علامة ✖ في أفضل إجابة في رأيك:

أ/ هذه المهارة مهمة؟

موافق بشدة(1)، موافق (2) ، أوافق إلى حد ما (3) ، متردد. (4) ،لا أوافق نوعا ما(5) ،لا أوافق(6) ،لا أوافق بشدة(7)؟ (يرجى وضع علامة على إجابة واحدة لكل مهارة)

المهارات العامة	1	2	3	4	5	6	7
القدرة على التواصل							
مهارات التعامل مع الآخرين							
مهارات حل المشكلات							
القدرة على التحليل مثل التقارير							
مهارات العمل الجماعي							
مهارات العرض والتقديم							

المهارات التقنية للمحاسبة							

ب/ ما هو مدى ارتباط هذه المهارات في دراستك الأكاديمية الحالية أو السابقة؟

ممتاز جدا (1) ،ممتاز (2)،جيد جدا (3)،جيد (4) المتوسط (5) ضعيف (6) ضعيف جدا (7)؟
(يرجى وضع علامة على إجابة واحدة لكل مهارة)

المهارات العامة	1	2	3	4	5	6	7
القدرة على التواصل							
مهارات التعامل مع الآخرين							
مهارات حل المشكلات							
القدرة على التحليل							
مهارات العمل الجماعي							
مهارات العرض والتقديم							

المهارات التقنية للمحاسبة							

ج/ كيف تقييم استخدام هذه المهارات خلال دراستك في الجامعة؟

ممتاز جدا (1) ،ممتاز (2)،جيد جدا (3)،جيد (4) المتوسط (5) ضعيف (6) ضعيف جدا (7)؟
(يرجى وضع علامة على إجابة واحدة لكل مهارة)

المهارات العامة	1	2	3	4	5	6	7
القدرة على التواصل							
مهارات التعامل مع الآخرين							
مهارات حل المشكلات							
القدرة على التحليل							
مهارات العمل الجماعي							
مهارات العرض والتقديم							

المهارات التقنية للمحاسبة							

شكرا لك|نحن نقدر مساعدتكم في هذا البحث.

السؤال الثاني أ /((<u>*هذا السؤال لطلاب المحاسبة فقط*</u>))

في رأيك، ما هو مستوى المهارات العامة والمهارات التقنية للمحاسبة المطلوبة لك للحصول على الوظيفة التي تريدها ،وما هو مستوى المهارة التي تشعر أنها لديك حاليا؟

ضع علامة ✖ في المربع الذي تشعر انه أفضل إجابة في الجدولين أدناه

-عند أي مستوى كل من هذه المهارات اللازمة لك للحصول على الوظيفة التي تريدها؟

المستوى المطلوب

المهارات العامة	متقدم	مرتفع	متوسط	أساسي	غير مطلوب	لا ادري
القدرة على التواصل						
مهارات التعامل مع الآخرين						
مهارات حل المشكلات						
القدرة على التحليل						
مهارات العمل الجماعي						
مهارات العرض والتقديم						

المهارات التقنية للمحاسبة						

ما هو مستوى كل مهارة التي تشعر أنها لديك حاليا؟

المستوى الذي تملكه

المهارات العامة	متقدم	مرتفع	متوسط	أساسي	ليس لدي
القدرة على التواصل					
مهارات التعامل مع الآخرين					
مهارات حل المشكلات					
القدرة على التحليل					
مهارات العمل الجماعي					
مهارات العرض والتقديم					

المهارات التقنية للمحاسبة					

السؤال الثاني ب/ ((*هذا السؤال للمحاسبين فقط*))

في رأيك، ما هو مستوى المهارات العامة والمهارات التقنية للمحاسبة المطلوبة في وظيفتك الحالية ،وما هو مستوى المهارة التي تشعر انها لديك حاليا؟

ضع علامة ✖ في المربع الذي تشعر انه أفضل إجابة في الجدولين أدناه

عند أي مستوى كل من هذه المهارات اللازمة المطلوبة في وظيفتك الحالية ؟

المستوى المطلوب

المهارات العامة	متقدم	مرتفع	متوسط	أساسي	غير مطلوب	لا ادري
القدرة على التواصل						
مهارات التعامل مع الآخرين						
مهارات حل المشكلات						
القدرة على التحليل						
مهارات العمل الجماعي						
مهارات العرض والتقديم						

المهارات التقنية للمحاسبة						

ما هو مستوى كل مهارة التي تشعر أنها لديك حاليا؟

المستوى الذي تملكه

المهارات العامة	متقدم	مرتفع	متوسط	أساسي	ليس لدي
القدرة على التواصل					
مهارات التعامل مع الآخرين					
مهارات حل المشكلات					
القدرة على التحليل					
مهارات العمل الجماعي					
مهارات العرض والتقديم					

المهارات التقنية للمحاسبة					

السؤال الثالث أ / تصنيف المهارات العامة

((هذا السؤال موجه لطلاب المحاسبة والمحاسبين))

المهارات العامة والمهارات التقنية للمحاسبة المذكورة أدناه تعتبر الأكثر أهمية للتنمية المهنية في كل من الجامعة ومكان العمل. الرجاء ترتيب هذه المهارات السبع في الترتيب من حيث الأهمية وفقا لرأيك من (1)المهارة الأهم إلى (7) الأقل أهمية.

(1)المهارة الاهم, (2) مهمةجدا, (3) مهارة مهمة, (4) مهمة بعض الشي, (5) ليست مهمة جدا, (6) اقل اهمية, (7) الاقل اهمية (اختر رقم معين لكل مهارة):

المهارات العامة	التصنيف
القدرة على التواصل	
مهارات التعامل مع الآخرين	
مهارات حل المشكلات	
القدرة على التحليل	
مهارات العمل الجماعي	
مهارات العرض والتقديم	

المهارات التقنية للمحاسبة	

السؤال الثالث ب/ أسئلة عامة بشأن المهارات العامة؟

اجب عن الأسئلة في الصندوق أدناه:

هل هناك أي مهارات هامة مفقودة من هذه الأسئلة أعلاه؟	نعم / لا
إذا كانت الإجابة بنعم ،يرجى ذكرهم بالتفصيل	

بشكل عام، ما مدى أهمية المهارات التقنية للمحاسبة مقارنة مع المهارات العامة

يرجى وضع نسبة مئوية في كلا المربعين 100 ٪

المهارات التقنية للمحاسبة	
المهارات العامة	
المجموع	%100

شكرا لك لملئ الاستبيانة

APPENDIX F: UNDERGRADUATE AND POSTGRADUATE ACCOUNTING STUDENTS

What generic and technical accounting skills do the undergraduate and postgraduate accounting students at the main six universities consider important?

Undergraduate

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	41	40	15	3	0	0	1
Interpersonal skills	42	34	20	1	2	0	1
Problem-solving skills	48	28	13	7	2	0	2
Capacity for analysis	34	32	21	7	4	1	1
Teamwork skills	39	27	22	7	2	3	0
Presentation skills	23	34	19	12	4	3	5

Technical accounting skills	39	24	24	9	3	0	1

Postgraduate Students

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	35	15	40	5	0	0	5
Interpersonal skills	25	25	30	15	0	5	0
Problem-solving skills	35	20	20	20	5	0	0
Capacity for analysis	40	20	30	0	0	5	5
Teamwork skills	45	30	10	10	0	0	5
Presentation skills	20	40	25	5	10	0	0

Technical accounting skills	50	20	15	10	5	0	0

How well were these skills covered in your degree?

Undergraduate Students

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	20	36	26	11	5	4	2
Interpersonal skills	21	31	32	8	4	4	0
Problem-solving skills	16	19	33	26	5	0	1
Capacity for analysis	17	23	31	16	9	3	1
Teamwork skills	19	31	26	13	4	4	3
Presentation skills	16	29	20	15	13	6	1

Technical accounting skills	17	20	26	15	10	9	3

Postgraduate Students

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	25	15	30	10	5	5	10
Interpersonal skills	25	35	15	5	20	0	0
Problem-solving skills	15	15	35	20	10	5	0
Capacity for analysis	20	25	20	20	10	5	0
Teamwork skills	25	15	30	10	15	0	5
Presentation skills	25	25	25	5	10	10	0

Technical accounting skills	15	40	20	5	10	5	5

How would you rate the use of these skills during your studies in the university?

Undergraduate Students

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	23	29	32	6	6	3	1
Interpersonal skills	22	34	28	10	4	2	0
Problem-solving skills	22	21	25	20	9	2	1
Capacity for analysis	10	35	21	21	8	5	0
Teamwork skills	17	33	27	9	7	6	1
Presentation skills	12	29	22	19	13	4	1
Technical accounting skills	14	22	23	22	7	8	4

Postgraduate Students

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	35	30	15	15	5	0	0
Interpersonal skills	20	30	30	15	0	5	0
Problem-solving skills	30	10	30	15	10	5	0
Capacity for analysis	20	20	35	15	10	0	0
Teamwork skills	30	25	10	15	15	0	5
Presentation skills	20	30	15	10	15	10	0
Technical accounting skills	20	10	55	5	5	0	5

At what level is/are each of the listed skills required for you to get the job you want?

Undergraduate Students

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	1	17	18	32	31	1
Interpersonal skills	2	23	20	32	23	0
Problem-solving skills	1	16	28	35	19	1
Capacity for analysis	3	11	32	29	21	4
Teamwork skills	7	17	22	28	25	1
Presentation skills	4	17	30	22	23	4
Technical accounting skills	4	18	17	33	25	3

Postgraduate Students

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	10	25	30	20	10	5
Interpersonal skills	5	25	20	40	10	0
Problem-solving skills	5	30	25	35	5	0
Capacity for analysis	10	25	15	20	25	5
Teamwork skills	10	20	20	35	15	0
Presentation skills	5	20	40	25	10	0
Technical accounting skills	15	20	20	25	20	0

What level of each skill do you feel you currently have?

Undergraduate Students

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	5	13	29	36	17
Interpersonal skills	4	16	20	45	15
Problem-solving skills	8	25	40	17	10
Capacity for analysis	15	15	41	17	12
Teamwork skills	5	16	38	23	18
Presentation skills	14	16	41	15	14
Technical accounting skills	7	14	43	24	12

Postgraduate Students

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	10	15	40	20	15
Interpersonal skills	10	20	20	35	15
Problem-solving skills	10	20	60	10	0
Capacity for analysis	5	15	65	5	10
Teamwork skills	10	20	25	25	20
Presentation skills	15	5	45	30	5
Technical accounting skills	10	10	40	30	10

How do the generic and technical accounting skills stack up in their degree of importance relative to each other? From most important to less important

Undergraduate Students

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	39	17	19	12	6	6	1
Interpersonal skills	19	28	15	9	15	9	5
Problem-solving skills	14	15	18	23	16	7	7
Capacity for analysis	16	12	13	15	17	14	13
Teamwork skills	5	19	15	20	13	15	13
Presentation skills	0	1	7	8	13	23	48

Technical accounting skills	7	8	13	13	20	26	13

Postgraduate Students

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	50	5	20	5	5	10	5
Interpersonal skills	15	20	10	20	5	25	5
Problem-solving skills	5	30	10	15	0	25	15
Capacity for analysis	20	20	5	10	30	0	15
Teamwork skills	0	10	35	15	20	10	10
Presentation skills	5	0	5	15	20	10	45

Technical accounting skills	5	15	15	20	20	20	5

Are there any important skills missing from these questions above? If yes, please detail them

Undergraduate (Accounting Students)

Yes / no 9% / 91%
- ability to accept others' views - Ability to use modern skills - Ability to adapt with Practical skills - Decision making skills - Reporting, language and organizing skills - The ability to rapid absorption - ability to rapid completing work (2) - ability to rapid act and thinking skills

Postgraduate (Accounting Students)

Yes / no 5% / 95%
- English language skills

How do the generic skills compare in their importance to the technical accounting skills?

Undergraduate Students

Technical Skills	**46**
Generic **Skills**	**54**
	100

Postgraduate Students

Technical Skills	**48**
Generic **Skills**	**52**
	100

APPENDIX G: MALE AND FEMALE ACCOUNTING STUDENTS

What generic and technical accounting skills do the male and female accounting students at the main six universities in Saudi Arabia consider important?

Male

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	41	40	15	3	0	0	1
Interpersonal skills	40	35	20	1	3	0	1
Problem-solving skills	50	25	13	8	3	0	3
Capacity for analysis	39	33	19	5	3	1	1
Teamwork skills	43	24	23	6	3	3	0
Presentation skills	25	36	18	11	4	1	5

Technical accounting skills	41	23	25	8	3	0	1

Female

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	38	28	28	5	0	0	3
Interpersonal skills	38	28	25	8	0	3	0
Problem-solving skills	38	30	18	13	3	0	0
Capacity for analysis	28	25	30	8	5	3	3
Teamwork skills	35	35	15	10	0	3	3
Presentation skills	18	33	25	10	8	5	3

Technical accounting skills	40	25	18	13	5	0	0

How well were these skills covered in your degree?

Male

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	20	33	26	10	6	5	0
Interpersonal skills	18	31	33	9	5	5	0
Problem-solving skills	16	20	33	25	5	0	1
Capacity for analysis	16	24	28	18	10	4	1
Teamwork skills	19	33	24	13	5	5	3
Presentation skills	16	26	21	19	10	6	1

Technical accounting skills	15	24	25	13	11	9	4

Female

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	23	33	28	13	3	3	0
Interpersonal skills	30	33	23	5	10	0	0
Problem-solving skills	15	15	38	23	8	3	0
Capacity for analysis	20	23	33	15	8	3	0
Teamwork skills	23	20	33	13	8	0	5
Presentation skills	20	33	20	3	18	8	0

Technical accounting skills	20	23	25	15	8	8	3

How would you rate the use of these skills during your studies in the university?

Male

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	21	31	31	5	8	3	1
Interpersonal skills	24	31	28	11	4	3	0
Problem-solving skills	20	25	25	19	8	3	1
Capacity for analysis	10	36	21	21	6	5	0
Teamwork skills	19	34	24	9	8	8	0
Presentation skills	15	28	23	18	11	5	1

Technical accounting skills	14	25	19	23	8	9	4

Female

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	33	25	25	13	3	3	0
Interpersonal skills	18	38	30	10	3	3	0
Problem-solving skills	30	8	28	20	13	3	0
Capacity for analysis	15	25	28	18	13	3	0
Teamwork skills	20	28	25	13	10	0	5
Presentation skills	10	33	18	18	18	5	0

Technical accounting skills	18	10	48	13	5	3	5

At what level is/are each of the listed skills required for you to get the job you want?

Male

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	1	15	19	33	31	1
Interpersonal skills	3	24	21	30	23	0
Problem-solving skills	1	16	25	36	20	1
Capacity for analysis	1	13	28	31	24	4
Teamwork skills	6	16	21	30	25	1
Presentation skills	4	18	31	21	25	1
Technical accounting skills	4	14	19	36	24	4

Female

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	5	25	23	25	20	3
Interpersonal skills	3	23	18	40	18	0
Problem-solving skills	3	23	33	33	10	0
Capacity for analysis	10	15	33	20	18	5
Teamwork skills	10	20	23	28	20	0
Presentation skills	5	18	33	25	13	8
Technical accounting skills	10	28	15	23	25	0

What level of each skill do you feel you currently have?

Male

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	6	11	30	35	18
Interpersonal skills	5	15	23	41	16
Problem-solving skills	8	18	44	20	11
Capacity for analysis	14	19	38	18	13
Teamwork skills	5	15	36	24	20
Presentation skills	14	19	38	15	15
Technical accounting skills	6	14	39	29	13

Female

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	5	18	33	30	15
Interpersonal skills	5	20	15	48	13
Problem-solving skills	10	13	68	8	3
Capacity for analysis	13	8	60	10	10
Teamwork skills	8	20	35	23	15
Presentation skills	15	5	50	23	8
Technical accounting skills	10	13	50	18	10

How do the generic and technical accounting skills stack up in their degree of importance relative to each other? From most important to less important

Male

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	38	16	21	11	6	6	1
Interpersonal skills	18	25	15	8	18	11	6
Problem-solving skills	14	19	16	20	16	6	9
Capacity for analysis	19	13	15	16	11	16	10
Teamwork skills	5	21	11	21	14	15	13
Presentation skills	0	1	8	10	14	20	48
Technical accounting skills	8	5	14	14	21	25	14

Female

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	48	13	15	10	5	8	3
Interpersonal skills	20	30	13	18	5	13	3
Problem-solving skills	10	15	18	25	8	18	8
Capacity for analysis	13	15	5	10	35	3	20
Teamwork skills	3	10	33	15	15	13	13
Presentation skills	3	0	5	8	15	23	48
Technical accounting skills	5	18	13	15	18	25	8

Are there any important skills missing from these questions above? If yes, please detail them

Male (Accounting Students)

Yes / no 8% / 92%
- ability to accept others' views - Ability to use modern skills - Ability to adapt with Practical skills - Decision making skills - Reporting, language and organizing skills - The ability to rapid absorption

Female (Accounting Students)

Yes / no 10% / 90%
- ability to rapid completing work (2) - ability to rapid act and thinking skills - English language skills

How do the generic skills compare in their importance to the technical accounting skills?

Male

Technical Skills	46
Generic Skills	54
	100

Female

Technical Skills	48
Generic Skills	52
	100

APPENDIX H: ALL NON-GOVERNMENT AND GOVERNMENTS' COMPANIES ((ACCOUNTANTS))

What generic and technical accounting skills do accountants at the government and non-government workplaces in Saudi Arabia workplace consider important?

Non-Government

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	35	46	11	3	3	3	0
Interpersonal skills	41	41	14	3	3	0	0
Problem-solving skills	46	24	16	11	3	0	0
Capacity for analysis	38	38	11	5	8	0	0
Teamwork skills	27	43	8	14	5	3	0
Presentation skills	22	24	27	14	8	3	3

Technical accounting skills	30	32	16	8	11	3	0

Government

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	36	57	0	0	0	0	7
Interpersonal skills	21	64	0	0	7	7	0
Problem-solving skills	43	29	14	0	7	0	7
Capacity for analysis	43	29	21	0	0	7	0
Teamwork skills	50	29	7	7	0	0	7
Presentation skills	43	21	14	14	0	7	0

Technical accounting skills	50	7	29	7	0	0	7

How well were these skills covered in your degree?

Non-Government

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	27	22	27	16	5	3	0
Interpersonal skills	19	30	24	19	5	3	0
Problem-solving skills	16	43	22	8	8	3	0
Capacity for analysis	22	38	19	8	8	3	3
Teamwork skills	24	19	30	11	11	3	3
Presentation skills	14	30	14	16	11	3	14
Technical accounting skills	22	11	27	22	5	8	5

Government

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	29	29	14	14	0	14	0
Interpersonal skills	29	29	21	7	0	14	0
Problem-solving skills	29	21	21	7	7	14	0
Capacity for analysis	36	36	7	14	0	7	0
Teamwork skills	36	7	29	14	14	0	0
Presentation skills	21	14	21	29	7	7	0
Technical accounting skills	21	21	21	7	21	7	0

How would you rate the use of these skills during your studies in the university?

Non-Government

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	24	32	22	16	5	0	0
Interpersonal skills	16	32	19	16	16	0	0
Problem-solving skills	16	32	27	16	8	0	0
Capacity for analysis	16	35	24	11	11	3	0
Teamwork skills	11	30	38	14	5	3	0
Presentation skills	16	22	32	14	5	3	8
Technical accounting skills	14	19	38	14	11	5	0

Government

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	29	21	21	14	0	14	0
Interpersonal skills	29	29	14	14	0	14	0
Problem-solving skills	14	36	14	29	0	7	0
Capacity for analysis	21	36	14	14	0	14	0
Teamwork skills	36	21	7	14	21	0	0
Presentation skills	14	21	29	14	14	7	0
Technical accounting skills	14	14	43	7	21	0	0

At what level is/are the skills listed required in your current job?

Non-Government

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	0	11	27	35	27	0
Interpersonal skills	3	16	14	43	24	0
Problem-solving skills	0	16	19	35	30	0
Capacity for analysis	0	19	24	24	32	0
Teamwork skills	0	24	16	38	22	0
Presentation skills	5	14	30	35	16	0
Technical accounting skills	5	19	24	30	22	0

Government

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	0	14	14	21	50	0
Interpersonal skills	0	14	36	29	21	0
Problem-solving skills	0	7	29	36	29	0
Capacity for analysis	0	0	43	14	43	0
Teamwork skills	0	21	29	14	36	0
Presentation skills	0	7	36	21	36	0
Technical accounting skills	0	7	36	29	29	0

What level of each skill do you feel you currently have?

Non-Government

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	0	11	32	46	11
Interpersonal skills	0	14	30	41	16
Problem-solving skills	3	16	19	46	16
Capacity for analysis	0	16	32	38	14
Teamwork skills	3	11	27	38	22
Presentation skills	11	14	35	22	19
Technical accounting skills	0	16	35	35	14

Government

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	0	7	21	50	21
Interpersonal skills	0	7	7	57	29
Problem-solving skills	0	7	43	29	21
Capacity for analysis	0	7	29	50	14
Teamwork skills	0	7	21	29	43
Presentation skills	0	7	21	43	29
Technical accounting skills	0	7	29	36	29

How do the generic and technical accounting skills stack up in their degree of importance relative to each other? From most important to less important

Non-Government

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	27	22	14	19	11	5	3
Interpersonal skills	11	14	19	30	16	5	5
Problem-solving skills	14	22	19	11	14	11	11
Capacity for analysis	22	19	5	14	19	22	0
Teamwork skills	11	5	14	19	27	16	8
Presentation skills	11	3	16	0	0	24	46
Technical accounting skills	5	16	14	8	14	16	27

Government

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	50	7	0	0	21	7	14
Interpersonal skills	7	21	29	14	0	21	7
Problem-solving skills	0	21	21	43	7	0	7
Capacity for analysis	14	7	7	21	29	21	0
Teamwork skills	0	14	21	7	21	14	21
Presentation skills	7	7	14	7	14	7	43
Technical accounting skills	21	21	7	7	7	29	7

Are there any important skills missing from these questions above? If yes, please detail them

Non-government Companies (Accountants)

Yes / no 22% / 78%
- Self-learning skills - Self-development skills - English language skills (2) - Improvement skills - The ability to be focused and arrangement in the performance of work - ability to follow System methodology - Ability to be familiar with more than one problem in same time

Government companies (Accountants)

Yes / no 36% / 64%
- Decision making skills - English language skills - Leadership skills. - Creative thinking skills - The ability to rapid absorption and Self-development Skills

How do the generic skills compare in their importance to the technical accounting skills?

Non-Government

Technical Skills	52
Generic Skills	48
	100

Government

Technical Skills	50
Generic Skills	50
	100

APPENDIX I: MALE AND FEMALE ACCOUNTANTS

What generic and technical accounting skills do male and female accountants at the main nine workplaces in Saudi Arabia workplace consider important?

Male

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	36	51	6	2	0	2	2
Interpersonal skills	38	47	9	2	2	2	0
Problem-solving skills	49	28	15	4	2	0	2
Capacity for analysis	43	38	11	4	2	2	0
Teamwork skills	36	43	9	9	0	2	2
Presentation skills	30	26	26	11	4	4	0
Technical accounting skills	38	26	19	9	4	2	2

Female

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	25	25	25	0	25	0	0
Interpersonal skills	0	50	25	0	25	0	0
Problem-solving skills	0	0	25	50	25	0	0
Capacity for analysis	0	0	50	0	50	0	0
Teamwork skills	0	0	0	50	50	0	0
Presentation skills	0	0	0	50	25	0	25
Technical accounting skills	0	25	25	0	50	0	0

How well were these skills covered in your degree?

Male

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	30	26	17	17	4	6	0
Interpersonal skills	23	32	21	13	4	6	0
Problem-solving skills	21	38	21	6	6	6	0
Capacity for analysis	28	40	13	9	4	4	2
Teamwork skills	30	17	30	9	11	2	2
Presentation skills	17	28	17	19	6	4	9
Technical accounting skills	23	13	28	15	11	6	4

Female

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	0	0	100	0	0	0	0
Interpersonal skills	0	0	50	50	0	0	0
Problem-solving skills	0	25	25	25	25	0	0
Capacity for analysis	0	0	50	25	25	0	0
Teamwork skills	0	0	25	50	25	0	0
Presentation skills	0	0	0	25	50	0	25
Technical accounting skills	0	25	0	50	0	25	0

How would you rate the use of these skills during your studies in the university?

Male

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	28	30	21	13	4	4	0
Interpersonal skills	21	34	17	13	11	4	0
Problem-solving skills	17	36	21	17	6	2	0
Capacity for analysis	19	38	21	11	6	4	0
Teamwork skills	19	30	28	13	11	0	0
Presentation skills	17	23	30	11	9	4	6
Technical accounting skills	15	19	40	11	13	2	0

Female

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	0	25	25	50	0	0	0
Interpersonal skills	0	0	25	50	25	0	0
Problem-solving skills	0	0	50	50	0	0	0
Capacity for analysis	0	0	25	25	25	25	0
Teamwork skills	0	0	50	25	0	25	0
Presentation skills	0	0	50	50	0	0	0
Technical accounting skills	0	0	25	25	25	25	0

At what level is/are the skills listed required in your current job?

Male

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	0	13	17	34	36	0
Interpersonal skills	2	17	15	40	26	0
Problem-solving skills	0	13	19	36	32	0
Capacity for analysis	0	13	28	21	38	0
Teamwork skills	0	21	19	32	28	0
Presentation skills	4	13	32	28	23	0
Technical accounting skills	4	11	30	30	26	0

Female

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	0	0	100	0	0	0
Interpersonal skills	0	0	75	25	0	0
Problem-solving skills	0	25	50	25	0	0
Capacity for analysis	0	25	50	25	0	0
Teamwork skills	0	50	25	25	0	0
Presentation skills	0	0	25	75	0	0
Technical accounting skills	0	75	0	25	0	0

What level of each skill do you feel you currently have?

Male

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	0	11	23	51	15
Interpersonal skills	0	11	21	47	21
Problem-solving skills	2	13	23	43	19
Capacity for analysis	0	13	34	38	15
Teamwork skills	2	11	26	32	30
Presentation skills	6	13	32	28	21
Technical accounting skills	0	13	36	34	17

Female

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	0	0	100	0	0
Interpersonal skills	0	25	50	25	0
Problem-solving skills	0	25	50	25	0
Capacity for analysis	0	25	0	75	0
Teamwork skills	0	0	25	75	0
Presentation skills	25	0	25	25	25
Technical accounting skills	0	25	0	50	25

How do the generic and technical accounting skills stack up in their degree of importance relative to each other? From most important to less important

Male

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	30	19	9	15	15	6	6
Interpersonal skills	11	15	21	28	13	11	2
Problem-solving skills	11	19	21	21	11	6	11
Capacity for analysis	21	17	6	11	21	23	0
Teamwork skills	9	6	17	17	28	11	13
Presentation skills	9	4	13	2	4	21	47

Technical accounting skills	11	19	13	6	9	21	21

Female

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	75	0	25	0	0	0	0
Interpersonal skills	0	25	25	0	0	0	50
Problem-solving skills	0	50	0	0	25	25	0
Capacity for analysis	0	0	0	75	25	0	0
Teamwork skills	0	25	0	0	0	50	25
Presentation skills	25	0	50	0	0	25	0

Technical accounting skills	0	0	0	25	50	0	25

Are there any important skills missing from these questions above? If yes, please detail them

Male (Accountants)

Yes / no 28% / 72%
- Self-learning skills - Self-development skills (2) - Decision making skills - Creative thinking skills - The ability to rapid absorption - English language skills (2) - Leadership skills - Improvement skills - The ability to be focused and arrangement in the performance of work - ability to follow System methodology - Ability to be familiar with more than one problem in same time

Female (Accountants)

Yes / no 0% / 100%

How do the generic skills compare in their importance to the technical accounting skills?

Male

Technical Skills	51
Generic Skills	49
	100

Female

Technical Skills	54
Generic Skills	46
	100

APPENDIX J: ALL ACCOUNTING STUDENTS IN SIX UNIVERSITIES AND ALL ACCOUNTANTS IN NINE WORKPLACES

What generic and technical accounting skills do the accounting students at the main six universities and accountants at the main nine workplaces in Saudi Arabia workplace consider important?

Accounting students

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	40	36	19	3	0	0	2
Interpersonal skills	39	33	22	3	2	1	1
Problem-solving skills	46	27	14	9	3	0	2
Capacity for analysis	35	30	23	6	3	2	2
Teamwork skills	40	28	20	8	2	3	1
Presentation skills	23	35	20	11	5	3	4

Technical accounting skills	41	23	23	9	3	0	1

Accountants

GENERIC SKILLS	Strongly agree	Agree	Agree somewhat	Undecided	Disagree somewhat	Disagree	Strongly disagree
Ability to communicate	35	49	8	2	2	2	2
Interpersonal skills	35	47	10	2	4	2	0
Problem-solving skills	45	25	16	8	4	0	2
Capacity for analysis	39	35	14	4	6	2	0
Teamwork skills	33	39	8	12	4	2	2
Presentation skills	27	24	24	14	6	4	2

Technical accounting skills	35	25	20	8	8	2	2

How well were these skills covered in your degree?

Accounting students

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	21	33	27	11	5	4	0
Interpersonal skills	22	32	29	8	7	3	0
Problem-solving skills	16	18	33	25	6	1	1
Capacity for analysis	18	23	29	17	9	3	1
Teamwork skills	20	28	27	13	6	3	3
Presentation skills	18	28	21	13	13	7	1
Technical accounting skills	17	23	25	13	10	8	3

Accountants

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	27	24	24	16	4	6	0
Interpersonal skills	22	29	24	16	4	6	0
Problem-solving skills	20	37	22	8	8	6	0
Capacity for analysis	25	37	16	10	6	4	2
Teamwork skills	27	16	29	12	12	2	2
Presentation skills	16	25	16	20	10	4	10
Technical accounting skills	22	14	25	18	10	8	4

How would you rate the use of these skills during your studies in the university?

Accounting students

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	25	29	29	8	6	3	1
Interpersonal skills	22	33	28	11	3	3	0
Problem-solving skills	23	19	26	19	9	3	1
Capacity for analysis	12	33	23	20	8	4	0
Teamwork skills	19	32	24	10	8	5	2
Presentation skills	13	29	21	18	13	5	1
Technical accounting skills	15	20	28	19	7	7	4

Accountants

GENERIC SKILLS	Exceptional	excellent	very well	well	average	poor	very poorly
Ability to communicate	25	29	22	16	4	4	0
Interpersonal skills	20	31	18	16	12	4	0
Problem-solving skills	16	33	24	20	6	2	0
Capacity for analysis	18	35	22	12	8	6	0
Teamwork skills	18	27	29	14	10	2	0
Presentation skills	16	22	31	14	8	4	6
Technical accounting skills	14	18	39	12	14	4	0

At what level is/are each of the listed skills required for you to get the job you want?

Accounting students

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	3	18	20	30	28	2
Interpersonal skills	3	23	20	33	21	0
Problem-solving skills	2	18	28	35	17	1
Capacity for analysis	4	13	29	28	22	4
Teamwork skills	8	18	22	29	23	1
Presentation skills	4	18	32	23	21	3
Technical accounting skills	6	18	18	32	24	3

Accountants

GENERIC SKILLS	Not required	Basic	Inter-mediate	High	Advanced	Don't know
Ability to communicate	0	12	24	31	33	0
Interpersonal skills	2	16	20	39	24	0
Problem-solving skills	0	14	22	35	29	0
Capacity for analysis	0	14	29	22	35	0
Teamwork skills	0	24	20	31	25	0
Presentation skills	4	12	31	31	22	0
Technical accounting skills	4	16	27	29	24	0

What level of each skill do you feel you currently have?

Accounting students

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	6	13	31	33	17
Interpersonal skills	5	17	20	43	15
Problem-solving skills	8	24	43	16	8
Capacity for analysis	13	15	45	15	12
Teamwork skills	6	17	36	23	18
Presentation skills	14	14	42	18	13
Technical accounting skills	8	13	43	25	12

Accountants

GENERIC SKILLS	None	Basic	Inter-mediate	High	Advanced
Ability to communicate	0	12	24	31	33
Interpersonal skills	2	16	20	39	24
Problem-solving skills	0	14	22	35	29
Capacity for analysis	0	14	29	22	35
Teamwork skills	0	24	20	31	25
Presentation skills	4	12	31	31	22
Technical accounting skills	4	16	27	29	24

How do the generic and technical accounting skills stack up in their degree of importance relative to each other? From most important to less important

Accounting students

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	41	15	19	11	6	7	2
Interpersonal skills	18	27	14	11	13	12	5
Problem-solving skills	13	18	17	22	13	10	8
Capacity for analysis	17	13	12	14	19	12	13
Teamwork skills	4	18	18	19	14	14	13
Presentation skills	1	1	7	9	14	21	48

Technical accounting skills	7	9	13	14	20	25	12

Accountants

GENERIC SKILLS	Most Important	Very Important	Important	Important somewhat	Not Very Important	Less Important	Least Important
Ability to communicate	33	18	10	14	14	6	6
Interpersonal skills	10	16	22	25	12	10	6
Problem-solving skills	10	22	20	20	12	8	10
Capacity for analysis	20	16	6	16	22	20	2
Teamwork skills	8	8	16	16	25	16	12
Presentation skills	10	4	16	2	4	22	43

Technical accounting skills	10	18	12	8	12	20	22

Are there any important skills missing from these questions above? If yes, please detail them

Accounting Students (All Universities)

Yes / no 8% / 92%
- ability to accept others' views - Ability to use modern skills - Ability to adapt with Practical skills - Decision making skills - Reporting, language and organizing skills - The ability to rapid absorption - ability to rapid completing work (2) - ability to rapid act and thinking skills - English language skills

Accountants (All Workplaces)

Yes / no 25% / 75%
- Self-learning skills - Self-development skills (2) - Decision making skills - Creative thinking skills - The ability to rapid absorption - English language skills (2) - Leadership skills - Improvement skills - The ability to be focused and arrangement in the performance of work - ability to follow System methodology - Ability to be familiar with more than one problem in same time

How do the generic skills compare in their importance to the technical accounting skills?

Accounting students

Technical Skills	47
Other Skills	53
	100

Accountants

Technical Skills	52
Other Skills	48
	100