

Perceived Importance of CPA's Generic Skills:A Japanese Study

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Abstract

The purpose of this study is to compare the differences in Japanese accounting faculty and practitioners' perceived importance of generic skills for Certified Public Accountants (CPAs) in order to assess the CPA Law Amendment of 2003. 127 effective data were collected from members of the Japanese Association for International Accounting Studies (JAIAS) via a questionnaire-based survey. This study focuses on the differences in the perceived importance of 12 generic skills and four skill types by using the Learning Skill Profile (LSP) instrument, originally developed by Boyatzis and Kolb (1995). It was found that Japanese accounting faculty and practitioners commonly perceived the information skill type as the most important and the behavioral skill type as the second most important, but they tended to regard the interpersonal skill type as less important. Several implications are also raised from the findings to improve the quality education of Japanese CPAs and also to facilitate the international harmonization of accounting education.

Keywords: Generic Skills, Accounting Professional, Learning Skill Profile, Certified Public Accountant (CPA), CPA Law

JEL Classifications: M40, M41 and M49

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Introduction

Accounting literature has recognised that the radical economic environment of the current generation has changed the role of accounting professionals and created a certain consensus that professional candidates should acquire special skills that are beyond technical and theoretical knowledge (AICPA, 1999; Albrecht and Sack, 2000; ICAA, 2001; Henderson, 2001). These skills are widely referred to as generic skills in the literature. De Lange et al. (2006), for example, define generic skills as transferable qualities to suit the industry in which one works. Technically, they are likely to include, but are not limited to, communication, problem solving, personal and interpersonal skills (Gammie, et al, 2002; Ballantine and Larres, 2004; De Lange et al., 2006).

From an accounting education perspective, generic skills have been addressed by the International Education Standard for Professional Accountants No.3 (IES 3): Professional Skills. The aim of IES 3 is to ensure professional candidates for membership of a professional body of the International Federation of Accountants (IFAC) are equipped with the skills to function as professional accountants (IFAC, 2003). In response, it has been suggested by some literature that the actual contents of an accounting education program should include the development of generic skills (e.g. Albrecht and Sack, 2000; Howieson, 2003). It has also been pointed out that accounting faculty and professional bodies should strive to ensure students understand how important these skills are and should try to encourage them to master these skills (Usoff and Feldmann, 1998).

In Japan, the Certified Public Accountant (CPA) Law was amended in 2003 to integrate generic skill training into the pre-qualification process for CPAs. The purpose of this amendment was to improve the quality of Japanese CPAs' competency by updating the traditional Japanese education system and integrating the fundamental notions and concepts of the IES into the system (FSC, 2002). These two items will be looked at in turn below. Firstly, the pre 2003 scheme was criticized as being a traditional educational system that mainly emphasized the memorizing of professional knowledge about technical skills and accounting standards (Kawahito, 2004). To address this weakness in the previous examination scheme, the Amended CPA Law requires qualified CPAs and CPA candidates to acquire not only comprehensive professional competencies, but also broad generic skills including liberal arts, critical thinking skills, judgment skills, global awareness, foreign language ability and leadership (FSC, 2002). It was reported by the Subcommittee on the Certified Public Accountants System that these new skills are required for CPAs to keep up with the drastic changes in practice (FSC, 2002).

Secondly, this reform also considered the implementation of the IES issued by the IFAC in order to integrate its fundamental notions and concepts into the domestic accounting education scheme in Japan (FSC, 2002). As seen above, the IES contain many suggestions about accounting education across their global members, particularly in terms of generic skills in IES 3 (IFAC, 2003). To reflect this standard, the Amended CPA Law of 2003 has included a requirement of testing applicants' competency in terms of not only their professional knowledge, but also thinking skills and judgment skills in practical situations (CPA Law, Article 8, paragraph 4).

No study has been undertaken in the prior literature to ascertain the impact of this Legal reform in Japan. Aggestam-Pontoppidan (2009) reviewed the CPA Examination reform in Japan, but the author of the study left room for further study. She suggested in the conclusion that the outcome of the assessment of this reform would depend on how much the expectation gap in training of generic skills has been narrowed across accounting educators, regulators and employers since the Law was amended in 2003. Albrecht and Sack (2000) agreed that such an expectation gap in the perceived importance of the knowledge and skills between academics and practitioners is quite dangerous because the gap implies that the accounting education that faculty provide in tertiary school is not relevant in meeting the expectations of accounting practitioners, who are interested in their students as potential employees. Since the existence of such an expectation gap would imply failure of the CPA Examination reform, it is crucial to examine the gap among accounting educators and employers in Japan.

Additionally, as stated above, the Amended CPA Law of 2003 emphasizes the importance of thinking skills and judgment skills in particular (CPA Law, Article 8 paragraph 4). On the other hand, the IES expect professional candidates to be equipped with a wide variety of generic skills (IFAC, 2003). In this light, Lin et al. (2005), which replicated Albrecht and Sack's (2000) study to examine the perceived skill gap between faculty and practitioners in a Chinese university, implied that the differences in weight given to certain skills were derived from the level of development in economics and technology and social or cultural influence. Accordingly, it is also important to identify how much the profiles of perceived importance in generic skills differ between Japan and other countries. This finding will contribute to the smooth harmonization of accounting education proposed by the IES.

Given the above background, this study aims to explore and compare the perceived importance of generic skills for accounting professionals between Japanese accounting educators and practitioners. Although prior studies have examined such skill gaps in various countries, no such study has been undertaken to examine these gaps among Japanese accounting faculty and practitioners. This study also investigates the perceived importance profile of generic skills for Japanese educators and employers in order to compare them with their counterparts in other countries.

The brief background mentioned in this section will be followed in the next section by a literature review that will form the basis of the research questions. The third section will provide explanations of the research methodology, with the results of the analyses and interpretations presented in the fourth and fifth sections, respectively. The final section will summarize the findings and contributions, together with limitations and further research possibilities.

Literature Review and Research Questions

The shift in educational objectives in the Japanese Amended CPA Law of 2003 has placed greater attention on generic skills among employers in the accounting sector (Aggestam-Pontoppidan, 2009). However, few studies have been conducted in Japan to examine actual perceptions towards generic skills needed for success as a CPA among those who are involved in this sector.

In contrast, early works overseas have addressed generic skill issues. These studies initially have attempted to assess the role of perceptions towards generic skills among accounting students (e.g. Reed and

Kratchman, 1989; Oswick et al., 1994; Usoff and Feldmann, 1998; Hassall et al., 2005). For example, a US study by Usoff and Feldmann (1998) examined the perceived importance of generic skills to succeed in accounting practice, relative to the technical accounting skills of both undergraduate and postgraduate accounting students. With a questionnaire-based survey, their findings showed that while students tended to be aware of the importance of generic skills in the progress of education and practical experience, they perceived such skills as relatively less important than technical accounting skills. This result was consistent with several later studies, such as Gammie et al. (2002) in the UK and Mohamed and Lashine (2003) in the US.

Recently, De Lange *et al.* (2006) addressed the perceptions of successful skills in accounting practices from a graduate's perspective in Australian universities and investigated how much emphasis students thought should be given to generic and specific skills during their undergraduate accounting degree. The result of their factor analysis was that graduates perceived both interpersonal/communication skills and statistical/computing skills as more important than accounting/governance knowledge and technical skills. This conclusion is contrasted to the findings of Usoff and Feldmann (1998) where students believed the importance of generic skills was much lower than those of technical accounting skills.

Albrecht and Sack (2000) attempted to assess which skills accounting faculty and practitioners in US universities believed as the most important in terms of how much class time should be spent developing each skill. Their survey outcomes revealed that the belief profiles of skill importance were substantially similar between faculty and practitioners. Both groups regarded that analytical/critical thinking, written communication, oral communication, computing technology, decision making and interpersonal skills were the primary skills to be learned in the education process. In contrast, a US study of Baker and McGregor (2000) tried to identify gaps in the perceptions of generic skills within accounting faculty, business practitioners, accounting professionals and postgraduate students. Their results indicated that faculty believed that communication skills were less important for success than the other interest groups, and they tended to view grade point average as the primary factor for success in their students' careers.

Following on from these prior studies, the expectation gap has been discussed actively in other literature in terms of the gaps between accounting educators and employers in the accounting sector (e.g. Bui and Porter, 2009; Kavanagh and Drennan, 2008) and between accounting students and employers (e.g. Jackling and De Lange, 2009; Gammie et al., 2002; Leveson, 2000). Overall it was found by these prior studies that the perceived importance in the profiles of generic skills among faculty was inconsistent with those of employer groups.

Compared to these previous studies overseas, few investigations have been undertaken in Japan to explore the expectation gap in the perceptions of generic skills among those who work in the accounting field. In fact, it does not seem to be clear whether the latest reform of the CPA Examination scheme is resolving the expectation gap and the existence of the expectation gap in Japan has not been investigated empirically.

More recently, Aggestam-Pontoppidan (2009) reviewed the reform of the CPA Examination in Japan and suggested that the outcome of the assessment of this reform would depend on how much the gap in the social expectation has been narrowed across educators, regulators and professionals after the Law was

amended in 2003. This prior study did not make an argument with empirical evidence, but encouraged further continual investigation of this gap in order to help achieve successful reform of education programs in Japan. In response to the above discussions in the accounting literature, this study developed the following question to address this research interest.

RQ 1: Is there any difference in perceived importance of generic skills needed for success by CPAs between accounting faculty and practitioners in Japan?

As stated earlier, the post 2003 CPA Examination scheme in Japan advocated placing more emphasis and attention on generic skills training rather than just to test applicants' technical knowledge and skills (FSC, 2002). This reform of the CPA examination has brought drastic changes to the CPA pre-qualification structure. Aggestam-Pontoppidan (2009) depicted this challenge as the integration of some 'Western' teaching methods with the traditional Japanese education system.

In fact, just after the CPA Law Amendment of 2003, new professional schools referred to as 'Accounting Schools' were established in Japan. These new institutions were established partly as a reflection of professional schools in the Western world, such as the USA, where the comprehensive accounting curriculum at the tertiary level enables students not only to obtain knowledge and technical skills for sitting the CPA Examination, but also to train them with sufficient competencies and generic skills for professional activities (FSC, 2003). The Amended CPA Law allows graduates from Accounting Schools exemption from sitting some parts of the CPA Examination on the grounds that they completed the degree through the curriculum offered by the Accounting Schools (CPA Law, Article 9, Paragraph 2).

However, a greater difference has been observed in the perceived importance of generic skills between Japan and other countries. Technically speaking, the CPA Law Amendment of 2003 emphasized the importance of thinking skills and judgment skills out of the various types of generic skills. The Amended CPA Law of 2003 specifically mentions the requirement to test applicants' competency for thinking skills and judgment skills (CPA Law, Article 8, paragraph 4). However, no other articles or paragraphs in the Amended CPA Law of 2003 address other generic skills, such as communication skills or interpersonal skills.

In contrast to such a skewed view of skill importance in the Japanese legislation, other literature overseas has shown a different perspective in the variety of important skill profiles. Some prior studies in various countries show empirical evidence that the perceived importance of generic skills needed for accounting professionals vary broadly. For example, Carr et al. (2006) surveyed alumni from one university in New Zealand to investigate their views on the most important competencies required for a graduate to excel in the profession. This study identified communication skills and problem solving skills as the primary generic skills, together with technical accounting skills.

An Australian study by Jackling and De Lange (2009) examined the perception of students and employers towards technical and generic skills and found that while employers viewed technical skills as the primary skills, they also acknowledged the importance of a board range of generic skills that graduates indicated were not being adequately taught in their accounting degree program. These generic skills were team skills,

leadership, verbal communication and interpersonal skills.

A study by Hassall et al. (2005) attempted to compare the opinions of the employers of management accountants in Spain and the UK to determine vocational skill development priorities. The findings reported that the most important skills for the UK employers were communication skills (oral, written and effective listening), whilst Spanish employers rated the commitment to life-long learning and the global vision of the organization as of the most importance. Problem solving skills were ranked secondary in the range from fourth to 13th for Spanish employees, while this skill category was rated lower in the range from ninth to 15th for UK employees. This result indicates the difference in the ranking of perceived skill importance between nationalities.

In a similar vein, Lin et al. (2005) asserts that such differences in perceived skill importance have emerged across nationalities and cultures. Their study examined the perceptions of accounting students, faculty and professionals regarding the knowledge and skills needed in accounting education from a Chinese perspective. They found empirical differences in the perceptions of Chinese and US respondents towards the importance of the knowledge and skills required by accounting professionals. This prior study concluded that the emphasis of accounting education in China was upon knowledge training, with greater weight given to some technical accounting knowledge subjects, while the generic skill components received less attention. They also interpreted that such consequences were derived from the level of development in economics and technology and social/cultural influences.

Compared with these previous studies, no studies have been undertaken to compare the profiles of perceived importance for generic skills between Japanese and people from other countries. Since accounting education in Japan reflects different social/cultural influences from other countries (Aggestam-Pontoppidan, 2009), it can be assumed that there will be different profiles of perceived importance in generic skills among Japanese faculty and practitioners compared with their counterparts in other countries. In particular, it is important to clarify the impact of the latest reform to the CPA Examination in Japan. As stated above, the CPA Law Amendment of 2003 emphasizes the importance of thinking skills and judgment skills rather than various types of other generic skills. Thus, our research interest in this context is whether this amendment has affected these actual perceptions of generic skills among accounting faculty and practitioners.

RQ2: Are thinking skills and judgment skills regarded as more important than other generic skills among Japanese accounting faculty and practitioners?

Furthermore, compared with previous studies overseas (e.g. Jackling and De Lange, 2009; Carr et al., 2006; Hassall et al., 2005), no emphasis has been placed on the CPA Law Amendment of 2003 in terms of communication and interpersonal skills. To explore this research interest, the following research question is also developed.

RQ3: Are communication and interpersonal skills regarded as less important than other generic skills among Japanese accounting faculty and practitioners?

Research Methodology

Data Collection

Data for this study was collected from Japanese accounting faculty and practitioners to address the research questions of RQ1, RQ2 and RQ3. For this purpose, the authors posted hard copies of a questionnaire in July 2007 to all members of the Japanese Association for International Accounting Studies (JAIAS). The JAISA members include not only academics in accounting related subjects, especially bookkeeping and financial reporting, but also accounting practitioners, such as certified public accountants and corporate auditors. Of the 546 questionnaires initially disseminated, 133 responses were received with 6 responses eliminated due to incompleteness of the questionnaire. As a result, the effective response of the data used in this research analysis consists of 127 responses (an effective response rate of 24.3%).

This study divided the samples into three groups in relation to the respondents' career status: accounting faculty who have researched and taught at tertiary schools (faculty group); accounting faculty who work as faculty members and also have previous or current experience as practitioners (faculty with practical experience group); and accounting practitioners who currently work in business (practitioners group). Descriptive information is shown in Table 1.

The preliminary analysis was initially implemented to examine the influence of demographic factors via Chi-square tests. In this analysis, the distribution of respondents' ages, gender and specific research areas were analyzed across the groups. Specific research areas were examined only for the faculty and faculty with practical experience groups. As a result, a significant unequal distribution was found for age within the three groups, which left open a question of homogeneity among the three participant groups. Hence, the impact of age should be taken into consideration by incorporating this attribute into the analysis model.

Table 1: Descriptive Information

	Faculty (81)	Faculty with Practical Experience (26)	Practitioners (20)	Total (127)	Chi-square χ^2 (Sig.)
Age					
Less than 40	33 (40.7%)	1 (3.8%)	6 (30.0%)	40 (31.5%)	19.626 (.001)***
40 to 59	33 (40.7%)	15 (57.7%)	4 (20.0%)	52 (40.9%)	
Over 60	15 (18.5%)	10 (38.5%)	10 (50.0%)	35 (27.6%)	
Total	81 (100.0%)	26 (100.0%)	20 (100.0%)	127(100.0%)	
Gender					
Male	63 (77.8%)	23 (88.5%)	18 (90.0%)	104 (81.9%)	2.568 (.277)
Female	18 (22.2%)	3 (11.5%)	2 (10.0%)	23 (18.1%)	
Total	81 (100.0%)	26 (100.0%)	20 (100.0%)	127(100.0%)	
Research Subject					
Bookkeeping	13 (16.3%)	5 (19.2%)	-	20 (17.0%)	2.336(.801)
Financial Acc	43 (53.8%)	12 (46.2 %)	-	58 (51.9%)	
Management Acc.	8 (10.0%)	1 (3.8%)	-	9 (8.5%)	
Audit	7 (8.8%)	3 (11.5 %)	-	10 (9.4%)	
Financial Analysis	4 (5.0)	2 (7.7 %)	-	6 (5.7%)	
Other	5 (6.3%)	3 (11.5%)	-	9 (7.5%)	
Total	80 (100.0%)	26 (100.0%)	-	106(100.0%)	

*** significant at the 0.01 level

Questionnaire Development

To assess respondents' perceptions of acquired generic skills, this study applied skill items in the Learning Skills Profile (LSP) instrument originally developed and formally published by Boyatzis and Kolb (1995). This instrument is designed to assess an individual's learning skills deemed important in business and management education. In Boyatzis and Kolb (1995), learning skills are defined as "generic heuristic(s) that enables mastery of a specific domain", which are equivalent with the concept of generic skills that are dealt with in this study. Applying this instrument to this research will permit us to use the set of scores of Cronbach alphas based on a large representative sample accumulated by many prior studies. Comparing the data with such a set of norms enables us to ensure the reliability of and internal consistency in this study.

The original LSP uses a 72-item modified Q-sort assessment instrument to capture respondents' learning skills. Subjects are asked to place each of 72 skill statements into one of seven stacks reflecting their own level of job skill demand. The stacks are labeled: one for not relevant to job or career; two for a rarely required skill or activity; three for a sometimes-required skill or activity; four for a regularly used skill or activity; five for an important skill or activity; six for an essential skill or activity; and seven for a top-priority skill or activity. The 72 skill statements constitute 12 skill elements and these are also categorized into four skill types (see Table 2). For the purpose of this research, the present study modified the card-based Q-sort assessment into a questionnaire-based instrument more familiar to recipients.

Table 2: The Types and Elements of Learning Skill Profile

Skill Type	Skill Element	Description
1. Interpersonal Skills (set of abilities representing people-oriented, feeling, sensing skills)	a. Leadership	The ability to inspire and motivate others, to sell your ideas to others, to negotiate and build team spirit.
	b. Relationship	The ability to establish trusting relationships with others, to facilitate communication and cooperation and to work in teams.
	c. Help	The ability to be sensitive to others, to aid others in gaining opportunities to grow and to be self-aware.
2. Information Skills (set of abilities which enable one to take in and organise new information)	d. Sense Making	The ability to adapt, to change, to deal with new situations and to define new strategies and solutions.
	e. Info. Gathering	The ability to be sensitive to and aware of organizational events, to listen with an open mind, and to develop and use various sources for receiving and sharing information.
	f. Info. Analysis	The ability to assimilate information from various sources, to derive meaning and to translate specialized information for general communication and use.
3. Analytical Skills (set of cognitive thinking abilities that enable ones to process ideas)	g. Theory	The ability to adopt a larger perspective, to conceptualize, to integrate ideas into systems or theories and to use models or theories to forecast trends.
	h. Quantitative	The ability to use quantitative tools to analyze and solve problems, and to derive meaning from quantitative reports.
	i. Technology	The ability to use computers and computer networks to analyze data and organize information and to build computer models or simulation.
4. Behavioral Skills (set of abilities associated with taking action and making things happen)	j. Goal Setting	The ability to establish work standards, to monitor and evaluate progress toward goals and to make decisions based on cost-benefits.
	k. Action	The ability to commit to objectives, to meet deadlines, to be persistent and to be efficient.
	l. Initiative	The ability to seek out and take advantage of opportunities, to take risks and make things happen.

Boyatzis and Kolb (1993)

Descriptive Statistics and Reliability of LSP

Table 3 shows the descriptive statistics for the generic skill types and elements. Each mean score with standard deviation was calculated and displayed for the overall sample, faculty, faculty with practical experience and practitioners. Table 3 also reports Cronbach alphas for each skill type and element. This study applied the LSP instrument because some previous studies illustrate the reliability of the LSP with reference to Cronbach alpha. For example, Boyatzis and Kolb (1991) computed Cronbach alphas for MBA students' 12 skill elements, which ranged from .618 to .917, with an average of .778. A more recent study by Kretovics (1999) also reported that the alphas for postgraduate students studying in a Master's MBA course ranged from .651 to .935, with an average of .830. Similarly the present study obtained Cronbach

alphas ranged from .641 (information gathering) to .893 (technology) for Japanese accounting faculty/practitioners. The average scores of alpha were also computed as .751. Additionally, as shown in Table 2, this study also calculated Cronbach alphas ranging for the four skill types and these ranged from .806 to .874, with an average score of .842. Hence, compared with previous results, this study has sufficient reliability in applying the LSP instrument.

Table 3: Descriptive Statistics of Skill Types and Skill Elements

(a) Skill Types

Group (n)	Overall (127) Means (Std. Dev.)	Faculty (81) Means (Std. Dev.)	Faculty with Practical Experience (26) Means (Std. Dev.)	Practitioners (20) Means (Std. Dev.)	Alpha
1 Interpersonal Skills	87.51 (12.657)	87.09 (12.634)	89.15 (11.602)	87.10 (14.440)	.861
2 Information Skills	96.58 (11.066)	97.11 (11.505)	95.77 (10.977)	95.50 (9.638)	.874
3 Analytical Skills	85.34 (13.522)	87.81 (14.341)	81.38 (10.845)	80.45 (10.909)	.806
4 Behavioral Skills	90.04 (11.791)	90.62 (11.401)	90.77 (11.357)	86.75 (13.833)	.825
Average Score	89.86 (10.336)	90.65 (10.618)	87.45 (10.686)	89.26 (9.158)	.842

(b) Skill Elements

Group (n)	Overall (127) Means (Std. Dev.)	Faculty (81) Means (Std. Dev.)	Faculty with Practical Experience (26) Means (Std. Dev.)	Practitioners (20) Means (Std. Dev.)	Alpha
a Leadership	28.66 (4.811)	28.23 (4.776)	29.23 (4.776)	28.95 (4.936)	.765
b Relationship	30.82 (4.632)	30.95 (4.469)	31.04 (4.745)	30.00 (5.262)	.771
c Help	28.03 (4.858)	27.90 (5.034)	28.35 (4.098)	28.15 (5.244)	.753
d Sense Making	32.06 (3.968)	32.07 (4.168)	32.42 (3.252)	31.55 (4.110)	.703
e Information Gathering	32.37 (3.982)	32.69 (4.033)	31.92 (4.298)	31.65 (3.329)	.641
f Information Analysis	32.15 (4.417)	32.35 (4.487)	31.42 (4.785)	32.30 (3.686)	.749
g Theory	30.09 (4.667)	30.41 (4.740)	30.04 (4.467)	28.90 (4.656)	.752
h Quantitative	27.59 (5.393)	28.83 (5.282)	25.81 (4.891)	24.90 (5.046)	.822
i Technology	27.65 (5.812)	28.58 (5.837)	25.54 (6.288)	26.65 (4.209)	.893
j Goal Setting	30.43 (4.461)	30.81 (4.503)	30.65 (3.846)	28.60 (4.784)	.697
k Action	31.88 (4.166)	32.09 (3.988)	31.65 (4.988)	31.35 (3.856)	.710
l Initiative	27.72 (5.033)	27.72 (4.799)	28.46 (4.356)	26.80 (6.662)	.752
Average Score	29.95 (3.445)	30.21 (3.539)	29.75 (3.052)	29.15 (3.562)	.751

Results

A Multivariate Analysis of Variance test (MANOVA) was applied to determine whether a significant difference existed between faculty, faculty with practical experience and practitioner groups across the set of four skill types. For research purposes, four skill types of interpersonal skill type (INTE), information skill type (INFO), analytical skill type (ANAL) and behavioral skill type (BEHA) were used as the dependent variables and the subjects' occupation group (JOB) was used as the independent variable. Moreover, the MANOVA model in this study incorporated a subject's age (AGE) as the control variable to

consider the impact of age difference across the JOB group demographics.

A MANOVA computed and compared the estimated scores for perceived importance of the four skill types within the three different groups to identify the overall effect. Table 4 shows the result of this MANOVA testing with a Pillai's Trace test. This result presents a significant difference ($F = 2.360$, $p < .05$) within the three JOB groups across the four skill types. The analysis result also reports a significant difference in scores of skill perception ($F = 2.471$, $p < .05$) within three different age groups across the four skill types. Further, the score of Box's M were calculated to test MANOVA's assumption of homoscedasticity. A non-significant result of Box's M 87.862 ($F = 1.224$, $p = .116$) indicates the successful rejection of the null hypothesis and that the covariances are not homogeneous.

In addition, Univariate Analysis of Variance tests (ANOVA) were conducted to test for differences in the perceived importance of generic skill types needed for success by CPAs. The directions of these differences are also identified by the ANOVAs. Each skill type of INTE, INFO, ANAL and BEHA was used as the dependent variable of each four Univariate ANOVA. The attribute of JOB was used as the independent variable. AGE was also incorporated as the control variable with each Univariate test, similar to the MANOVA test.

Table 4: MANOVA Result

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.
Intercept	.984	1804.424	4.000	119.000	.000***
JOB	.146	2.360	8.000	240.000	.018**
AGE	.152	2.471	8.000	240.000	.014**

Independent variable = JOB and AGE; Dependent variables = INFO, BEHA, ANAL and INTE

Box's M = 87.862 ($F=1.224$, $df1=60$, $df2=3751.098$, $Sig.=.116$)

*** significant at the 0.01 level, ** significant at the 0.05 level

Table 5 presents the result of four ANOVA tests. These analyses discovered a significant difference within the three JOB groups only in terms of analytical skill type (ANAL) with the statistical evidence of $F = 5.291$ ($p < .01$). The other three ANOVA for INTE, INFO and BEHA failed to find any significant differences in skill perception scores within the three JOB groups. Moreover, supplementary ANOVAs were conducted to test whether the interaction effect between JOB and AGE had significant correlation with the perceived importance of each of the four skill types. These analyses reported no significant results for the interaction effect for all four ANOVAs. The scores of adjusted R^2 for the four ANOVA tests of INTE, INFO, ANAL and BEHA were .055, .033, .089 and .081, respectively. Levene's test of equality of error variances was conducted for each ANOVA to test homogeneity of variance. F-values and P-values for Levene's test were .636 ($p = .746$) for INTE, .903 ($p = .517$) for INFO, 1.228 ($p = .286$) for ANAL and .572 ($p = .799$) for BEHA, respectively. Accordingly, these rejections of null hypotheses indicate that the variances for all four ANOVA are not homogeneous in each model.

Table 5: Univariate ANOVA Result
 (a) INTE (Interpersonal Skills)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1720.937	4	430.234	2.843	.027**
Intercept	676385.357	1	676385.357	4468.991	.000***
JOB	265.157	2	132.578	.876	.419
AGE	1632.784	2	816.392	5.394	.006***
Error	18464.795	122	151.351		
Total	992792.000	127			
Corrected Total	20185.732	126			

Independent variable = JOB and AGE; Dependent variable = INTE

F-value and P-value for Levene's test are .636 and .746

R Squared = .085 (Adjusted R Squared = .055)

*** significant at the 0.01 level, ** significant at the 0.05 level

(b) INFO (Information Skills)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	985.166	4	246.292	2.080	.087
Intercept	808653.343	1	808653.343	6829.410	.000***
JOB	134.212	2	67.106	.567	.569
AGE	921.900	2	460.950	3.893	.023**
Error	14445.716	122	118.408		
Total	1.200E6	127			
Corrected Total	15430.882	126			

Independent variable = JOB and AGE; Dependent variable = INFO

F-value and P-value for Levene's test are .903 and .517

R Squared = .064 (Adjusted R Squared = .033)

*** significant at the 0.01 level, ** significant at the 0.05 level

(c) ANAL (Analysis Skills)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2716.414	4	679.104	4.077	.004***
Intercept	604207.971	1	604207.971	3627.265	.000***
JOB	1762.767	2	881.383	5.291	.006***
AGE	1335.299	2	667.650	4.008	.021**
Error	20322.027	122	166.574		
Total	947938.000	127			
Corrected Total	23038.441	126			

Independent variable = JOB and AGE; Dependent variable = ANAL

F-value and P-value for Levene's test are 1.228 and .286

R Squared = .118 (Adjusted R Squared = .089)

Interaction effect between JOB and AGE was not significantly associated with the dependent variable of ANAL.

*** significant at the 0.01 level, ** significant at the 0.05 level

(d) BEHA (Behaviour Skills)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1921.831	4	480.458	3.759	.006***
Intercept	697653.131	1	697653.131	5457.764	.000***
JOB	622.347	2	311.174	2.434	.092
AGE	1664.529	2	832.265	6.511	.002***
Error	15594.972	122	127.828		
Total	1.047E6	127			
Corrected Total	17516.803	126			

Independent variable = JOB and AGE; Dependent variable = BEHA

F-value and P-value for Levene's test are .572 and .799

R Squared = .110 (Adjusted R Squared = .081)

*** significant at the 0.01 level

Table 6 exhibits the estimated means of perceived importance in skill type needed for success by CPAs among the three groups of accounting faculty, faculty with practical experience and current practitioners. In Table 6, the results of the least square difference t-test (LSD) are also displayed. The LSDs were applied to compare the difference in the estimated means among the three JOB groups and to identify the direction of these differences. The analysis result shows that the estimated means of the analytical skill type (ANAL) for the faculty group was significantly higher than that of the faculty with practical experience group ($p < .05$) and practitioner group ($p < .01$). In contrast, the mean score for the behavior skill type (BEHA) for the practitioner group was found to be significantly lower than that of the faculty group ($p < .05$). No significant differences were found for the rest of information skill type (INFO) and interpersonal skill type (INTE). The direction of these differences in perception of skill types are identified as the inequality signs in Table 6.

Table 6: Estimates and Univariate ANOVA Tests for Skill Types In Terms of JOB

	Faculty		Faculty with Practical Exp.		Practitioner		Univariate Tests		Inequality Sign
	Estimates (Std. Error)	Rank	Estimates (Std. Error)	Rank	Estimates (Std. Error)	Rank	F	Sig.	
INFO	97.640 (1.255)	1	96.954 (2.235)	1	94.651 (2.463)	1	.567	.569	-
BEHA	91.628 (1.304)	2	91.648 (2.322)	2	85.384 ^c (2.559)	2	2.434	.092	F > P
ANAL	88.755 ^b (1.488)	3	82.061 (2.650)	4	79.207 (2.922)	4	5.291	.006 ^a	F > F/P, P
INTE	87.765 (1.418)	4	90.778 (2.526)	3	85.992 (2.785)	3	.876	.419	-

F = estimated score for faculty; F/P = estimated score for faculty with practical experience; P = estimated score for practitioners

Least Square Difference t-test (LSD) technique was applied to adjust multiple comparisons

^a significant at the 0.01 level

^b significant for the LSD compared to faculty with practical experience ($p < .05$) and practitioner ($p < .01$)

^c significant for the LSD compared to faculty ($p < .05$)

The rankings of perceived importance of generic skill types were also reported in Table 6. These results revealed the ranking orders were similar among the three groups except for the analytical skill type (ANAL) and interpersonal skill type (INTE). It was also found in Table 6 that the faculty group perceived the analytical skill type as more important (ranked as third in importance) than the other two groups did (ranked as fourth in importance). This ranking result is consistent with the result of the LSD, which indicated a significantly higher score of ANAL for the faculty group than the other two groups. However, the significant difference in the behavioral skill type (BEHA) by the LSD is not explicit from the ranking order. Although the LSD result presents a significantly lower score for practitioners than the other two groups, all the scores of BEHA for the three groups are commonly ranked as second in importance.

Table 7: Estimates and Univariate ANOVA Tests for Skill Elements In Terms of JOB

Group (n)	Faculty (81)		Faculty with Practical exp. (26)		Practitioners (20)		Univariate Tests		Inequality Sign
	Estimates (Std. Error)	Rank	Estimates (Std. Error)	Rank	Estimates (Std. Error)	Rank	F	Sig.	
Information Gathering	32.759 (.448)	1	32.543 (.798)	2	31.455 (.880)	2	.848	.431	-
Information Analysis	32.547 (.503)	2	31.829 (.896)	4	31.986 (.988)	1	.298	.743	-
Action	32.404 (.470)	3	31.864 (.837)	3	30.934 (.923)	4	1.001	.370	-
Sense Making	32.335 (.452)	4	32.583 (.806)	1	31.21 (.888)	3	.768	.466	-
Goal Setting	31.131 (.499)	5	30.829 (.889)	6	28.191 ^e (.980)	8	3.523	.033 ^b	F, F/P > P
Relationship	31.038 (.526)	6	31.685 (.937)	5	29.776 (1.033)	5	.963	.385	-
Theory	30.804 (.523)	7	30.138 (.932)	8	28.41 (1.028)	7	2.096	.127	-
Quantitative	29.097 ^c (.589)	8	26.075 (1.05)	11	24.529 (1.157)	12	7.448	.001 ^a	F > F/P, P
Technology	28.854 ^d (.653)	9	25.847 (1.163)	12	26.268 (1.282)	10	3.301	.040 ^b	F > F/P, P
Leadership	28.538 (.539)	10	30.207 (.960)	7	28.508 (1.058)	6	1.207	.303	-
Help	28.188 (.547)	11	28.886 (.974)	10	27.708 (1.073)	9	.347	.707	-
Initiative	28.094 (.559)	12	28.955 (.996)	9	26.259 (1.098)	11	1.716	.184	-

F = estimated score for faculty; F/P = estimated score for faculty with practical experience; P = estimated score for practitioners

Least Square Difference t-test (LSD) technique was applied to adjust multiple comparisons

^a significant at the 0.01 level for the Univariate ANOVA

^b significant at the 0.05 level for the Univariate ANOVA

^c significant for the LSD compared to faculty with practical experience ($p < .05$) and practitioner ($p < .01$)

^d significant for the LSD compared to faculty with practical experience ($p < .05$) and practitioner ($p < .1$)

^e significant for the LSD compared to faculty ($p < .01$) and faculty with practical experience ($p < .05$)

This study also applied the ANOVAs to investigate the differences in perceptions held by the three JOB groups towards 12 skill elements. Using these supplementary analyses, the particular skill elements can be identified more specifically than by addressing the four skill type categories. The results are shown in Table 7. Of the total 12 generic skill elements, the ANOVA results exhibited that only three skill elements had significant differences over the three groups. According to these results, it was found that the average

scores for the quantitative skill element were significantly different ($F = 7.448$, $p < .01$) across the three groups. The technology skill element and the goal setting skill element were also found to be significantly different in perception across the three groups ($F = 3.301$, $p < .05$ for the technology skill element; $F = 3.523$, $p < .05$ for the goal setting skill element). The LSDs were additionally implemented with the ANOVA tests and produced results where the estimated mean score for the quantitative skill element for the faculty group was significantly higher than those of practitioner ($p < .01$) and faculty with practical experience ($p < .05$). The estimated score for the technology skill element for the faculty group was also found to be higher than those of the practitioner ($p < .05$) and faculty with practical experience group ($p < .1$). In contrast, the LSD results showed that the score for the goal setting skill element for practitioners was significantly lower than those of the faculty group ($p < .01$) and faculty with practical experience group ($p < .05$). Finally no significant differences were found for the rest of the skill elements. The directions of these differences in perception of skill types were identified as the inequality signs in Table 7 as well.

The ranking of perceived importance of generic skill elements are exhibited in Table 7. According to this ranking order, significant difference in the score for the quantitative skill element and the technology skill element are consistent with the significant result in the aggregate score for the analytical skill type (ANAL) across the three groups shown in Table 6. The significant result for the goal setting skill element is also reflected in the ANOVA result in the behavior skill type (BEHA), because the goal setting skill element is one of three components for this skill type category.

Interpretation

The analysis of results exhibited that the perceived importance in generic skill types and elements vary statistically in terms of the reported scores among all three faculty and practitioner groups. More specifically, the ranking of the analytical skill type (ANAL) was the third most important only for the faculty group, while the other two groups rated this skill type fourth. The result of the ANOVA with the LSD for this skill type also indicated that accounting faculty tended to value the analytical skill type as more important than the other two groups. Furthermore, the difference in views of the analytical skill type is reflected in the two analytical skill components of quantitative skill and technology skill, which were found to be statistically more important for the faculty group than for the other two groups.

These findings are supported by Francis and Minchington (1999), who explored the gap in the quantitative skills being taught by educators and those that are used in practice by management accountants. They concluded that educators tended to place greater emphasis on mathematical skills in the classroom which are now largely performed by information technology. This distorted emphasis on quantitative skills is similarly confirmed by accounting faculty in the current Japanese study.

In the case of information technology skills, the latest study of Hassall et al. (2005) implies the importance of information skills, which are no longer a priority to employers. Other important generic skills are replacing the higher perceived importance of information technology skills. Although the significant difference found in the analytical skill type among the three different groups was the distinctive feature of this Japanese study, it is interpreted that the lower ranking of this skill type and skill elements among all groups are consistent with prior studies overseas.

Additionally, comparative analysis revealed that the ranking of the interpersonal skill type was viewed the lowest for the faculty group, while the other two groups rated this skill type third. It is noteworthy that the two groups of faculty with practical experience and practitioners include individuals who have practical experience in business. Since both these parties commonly perceived interpersonal skills as more important than analytical skills, this finding can be interpreted that their practical experience allowed them to recognize the importance of interpersonal skills needed for success in accounting practice more than faculty who tend to use analytical skills frequently in their research activities.

A similar result was found by the interview-based study of Bui and Porter (2009), which indicated that employers expect graduates to possess leadership and interpersonal skills, while educators tended to perceive that these skills are more necessary for senior, rather than entry-level accounting positions. They found that faculty expressed that it is not important for accounting programs to equip graduates with these competencies. Consequently, the result of the present study confirmed the research question of RQ1 that there is a difference in perceived importance of generic skills needed for success by CPAs in terms of the analysis skill type and interpersonal skill type among accounting faculty, faculty with practical experience and practitioners in Japan. However, it was also found that this expectation gap existed only in the lower array of the skill profile among each of the three groups.

In contrast to the expectation gap in generic skill importance, all three faculty/practitioner groups commonly rated the information skill type as the most important and the behavioral skill type as the second most important. Most of the skill elements containing these two skill types were also ranked at higher positions in the array of skill elements for each skill profile (Table 7). They are the information gathering skill, the information analysis skill and the sense making skill in the information skill type, and goal setting skill in the behavioral skill type. According to the definitions of these skill elements in Table 2, these skills are interpreted as the cognitive abilities of how to deal with particular data, information and situations to find the best solution. Thus, the result of this study supports the hypothesis expressed in RQ2 and confirmed that stronger emphasis is placed on thinking skills and judgment skills among accounting educators and employers in Japan after the CPA Law Amendment of 2003.

In response to the higher rating of the information skill type and behavioral skill type, it was found that Japanese accounting faculty and practitioners viewed the interpersonal skill type relatively lower (ranked fourth for faculty; third for faculty with practical experience and practitioners). Such a substantial lower rating for interpersonal skills in this Japanese study was consistent with a Chinese study of Lin et al. (2005) reporting that computing techniques, which is a component of analytical skills, was perceived in their 18-skill ranking as the first and second most important skills for Chinese faculty and practitioners respectively.

In the study of Lin et al. (2005), oral communication, teamwork and leadership skills, which are the components of the interpersonal skill type in this study, were rated in the middle of the ranking order (around eight to 10 out of 18) among all the interest groups. The interpersonal skill element was only rated as the fifth most important skill for practitioners and the seventh most important skill for faculty and students, but this skill was regarded less important than computing techniques (Lin et al., 2005).

This lower importance of interpersonal skill type is highly contrasted to previous studies from other countries. For example, the US study of Albrecht and Sack (2000) revealing that faculty and practitioners in the US perceived that interpersonal skills, such as written and oral communication, were regarded as relatively more important skills among all the skills ranked. Similar results were supported by De Lange et al. (2006), which explored perceived importance of generic skills for graduates from Australian universities, and found that the primary component of the skills required was perceived to be interpersonal/communication skills, followed by statistical/computing skills. The latest studies of Carr et al. (2006) in New Zealand and Jackling and De Lange (2009) in Australia are also consistent with the findings of Albrecht and Sack (2000) and De Lange et al. (2006).

With regard to the perceived importance of generic skills, Lin et al. (2005) expressed that different cultures place different emphasis on what learning contents are relatively more important, of which consequences were derived from the level of development in economics, technology and social/cultural influences. In this prior study, the lower ratings of communication skills by Chinese respondents were caused by the influence of the Oriental culture, where people are supposed to be humble and must strictly obey orders or instructions from their supervisors. In such a cultural setting, two-way communication is usually not encouraged and the value of communication skills might be understated (Lin et al., 2005).

Similar empirical evidence is seen by Matveev and Nelson (2004), which reported that the lower Power Distance American managers had better competency of interpersonal skills than the higher Power Distance Russian managers. For the cultural dimension, Hostede (1986) argues that certain social hierarchies are normally acceptable to the society where human inequality occurs in areas including prestige, wealth and power. This cultural dimension is referred to as the Power Distance. According to Hofstede (1980; 2001), the scores of Power Distance are 80, 93 and 54 for Chinese, Russian and Japanese respectively, which means that people in these countries are classified as high Power Distance in comparison to the scores of Western countries where Power Distance scores are estimated as 40 and 36 for the people from the US and Australia respectively (Hofstede, 1980: 2001).

Furthermore, from the cultural and societal perspective of Japan, it may be interpreted that Japanese faculty and practitioners in this study have thought of communication and interpersonal skills as the ability to deal only with Japanese individuals who have similar cultural backgrounds and use only Japanese language. In contrast to the present Japanese research, prior studies in the US and Australia were conducted in situations where immigrants and international students with diversified language and cultural backgrounds are actively involved in and make up a greater portion of society. In such countries, communication and interpersonal skills would expect to be applied with English as the universal language, with no regard to each individual's native language. This difference in the make-up of society may cause the importance of interpersonal skills among faculty and practitioners to vary between Japan and other countries.

Consequently, with the above interpretations, the result of the present study confirmed empirically the research question of RQ3 and ascertained that communication and interpersonal skills are regarded as less important than other generic skills among faculty and practitioners in Japan, of which society has unique

cultural traits. It also became clear that the perceived importance of generic skills required for success by CPAs among the Japanese interest groups varies from those of their Western counterparts.

Concluding Remarks

The purpose of this study was to compare the perceptions towards generic skills for CPAs within Japanese faculty and practitioner groups in order to assess the legislative outcome of the CPA Law Amendment of 2003. The analysis of this study also investigated how much the profiles of perceived skill importance differ between Japanese accounting faculty/practitioners and those of their counterparts from other countries.

The present research found that all three groups of faculty, faculty with practical experience and practitioners commonly perceived the information skill type as the most important and the behavioral skill type as the second most important. On the other hand, Japanese faculty in tertiary schools valued interpersonal skills as the least important among the four skill types. This result was inconsistent with those of faculty with practical experience and practitioners, whose perceptions valued interpersonal skills as more important than analytical skills.

This overview of interpersonal skills by accounting faculty may be caused in part by the classroom situation in Japan, where the Power Distance dimension strongly prevails between lecturer and students. According to the prior study of Lin et al., (2005), such a cultural set may relatively discourage the value of communication skills. In contrast to this perception by the faculty, it is interpreted that faculty with practical experience and practitioners evaluated the importance of interpersonal skills slightly higher, as they may be able to recognize the importance of such skills from communicating with clients through their work experience.

However, this study confirmed that the expectation gap within these interest groups has been observed only in the lower array of the skill profile, and all three interest groups showed overall consensus of higher priority towards the information skill type and behavior skill type as a result of the CPA Law Amendment of 2003. In particular, participants in the three groups commonly tended to regard that analytical skills, including the quantitative skill element, were relatively less important for CPAs than the information and behavior skill types. This result implies that all subject groups have recognized that the role of the CPA should change from the traditional arithmetic expert, whose main skills focused on calculation and desk theory, to the knowledge professional who supports clients by providing services dealing with information and professional judgment.

Along with this implication, Aggestam-Pontoppidan (2009) have encouraged further research to investigate the outcome of the assessment of the CPA Law Amendment of 2003 by examining how much the expectation gap in training generic skills has been narrowed among faculty, regulators and practitioners since the scheme reform. The purpose of the CPA Law Amendment of 2003 was to improve the quality of Japanese CPAs' competencies, which contains not only comprehensive professional knowledge and skills, but also a wide variety of generic skills in order to adapt to the new economic environment of the present generation (FSC, 2002). This study makes a clear contribution to answering the questions of whether or not the CPA Law Amendment has achieved its purpose, to the extent that accounting faculty and practitioners

placed common emphasis on information skills and behavioural skills specifically stated in the Law.

Furthermore, comparisons with prior studies revealed that faculty and practitioners from Western countries, such as the US and Australia, were likely to regard communication and interpersonal skills as more important in the generic skill profile than their Japanese counterparts (Albrecht and Sack, 2000 in the US; De Lange et al., 2006; Jackling and De Lange, 2009 in Australia). In developing our research question, the lower level of importance of these skills was initially assumed among Japanese faculty and practitioners as the CPA Law does not mention these skills (CPA Law, Article 8, paragraph 4). In response to this research question, the present study recognized that the perceived gap of these skills arises from differences in awareness in various countries towards communication itself in society. It was concluded that the cultural and societal traits including higher Power Distance and non-English environment in Japanese society caused less attention to be placed on communication and interpersonal skills for CPAs.

The IES also have the fundamental premise that communication and interpersonal skills are abilities that work effectively in a cross-cultural setting, rather than in a purely domestic setting (IFAC, 2003 paragraph. 17(e)). In this context, the CPA Law Amendment of 2003 in Japan attempted to address and articulate the importance of global awareness and foreign language abilities in the official report of the Subcommittee on Certified Public Accountants System led by the Financial System Council (FSC, 2002). But this attempt has not been reflected properly in the CPA Law or in the actual perceptions towards generic skills for CPAs among Japanese faculty and practitioners. They need to be made aware of candidates' communication and interpersonal skills from a global point of view. For this reason the CPA Law should be amended to encourage these skill competences in the pre-qualification process.

Naturally, there are some limitations in this study. Firstly, this study focused on the perceived importance of generic skills only, but did not compare the importance between generic skills and technical accounting skills. Lin et al. (2005), conversely, attempted this comparison and obtained a useful implication towards the overemphasis of technical skills among Chinese faculty and practitioners. Further study should extend this research possibility in Japan by incorporating a question for respondents about their perception of technical accounting skills. Secondly, the demographic information of our sample revealed that a large portion of faculty came from a specific research area, such as bookkeeping and financial accounting. This feature may have affected the results, over emphasizing an external reporting viewpoint. A greater proportion of participants from other research specializations, such as audit or management accounting, may have produced different outcomes.

Despite these limitations, this study succeeded in identifying the perceived importance of generic skills for accounting professionals among Japanese faculty and practitioners. The findings contribute not only to improving the quality of Japanese CPAs' competencies, but also to help standard setters and policy makers achieve smooth harmonization of global accounting education by providing empirical evidence from a country outside of Western society.

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