The Accounting Profession as a Career Choice for Tertiary Business Students in Japan-A Factor Analysis

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ABSTRACT This study aims to investigate the major factors that influence Japanese tertiary business students’ vocational choice. A questionnaire-based survey was administered to both accounting and non-accounting students in Japanese tertiary institutions at the undergraduate and graduate levels. The results of two individualized factor analyses indicated significant differences between factors influencing the career profiles of both these groups of students. It further shows that the major influence affecting vocational choice for accounting students was based on intrinsic values. Non-accounting students indicated career prospects as the major contributing factor when choosing a career. These results are very important for accounting educators in Japan as they attempt to address the current unpopularity of the accounting profession.

KEY WORDS: Career choice, accounting profession, certified public accountants (CPA), accounting students

Introduction

Recent observations have shown that the number of tertiary students studying accounting as a degree major has dwindled around the world. This phenomenon is especially noted within the Anglo-Saxon countries of the USA. (Albrecht and Sack, 2000; Mauldin et al., 2000), UK. (Marshall, 2003), Ireland (Byrne and Willis, 2005), Australia and New Zealand (Wells and Fieger, 2004; 2005). Accounting professional bodies as well as academia have been challenged with the unpopularity of the accounting profession among business students for some time. Among them, Japan has mirrored this worldwide problematic phenomenon.

The time series data in Figure 1 shows the number of Certified Public Accountant (CPA) examinees in Japan since 1999. According to this figure, CPA examinees suddenly decreased by over 1,000 during 2005 with the recovery rate during the following year...
being much slower than one would expect. Since the introduction of the CPA scheme just after World War 2, such a fall has never been witnessed in Japan previously. Some media reports have predicted an emerging crisis in the Japanese accounting sector (Okada, 2005; Tamaki, 2005). Additionally, in 2003, the Certified Public Accountants Law (CPAs Law) in Japan was revised to introduce new CPA examinations from 2005 (Financial System Council, 2002). The aim of this reform was to attract as many CPA candidates as possible from diversified backgrounds and with varying experiences. This was deemed necessary in order to reactivate the human resource factor back into the accounting sector. However, one empirical study has revealed that this reform has not achieved its desired goal of attracting students from such diversified backgrounds and experiences (Sugahara et al., 2007).

Given the above background, the question now arises in Japan as to how tertiary educators and their related institutes can inspire students to pursue an accounting career. It is believed that the appropriate process to address this issue should be an investigation into the individual vocational factors affecting tertiary students. Research conducted overseas has focused widely on the influence that specific factor profiles have on a student’s vocational pathway. However, very limited research in this area has been undertaken in Japan.

This current study attempts to shed insights into the factors that affect Japanese business students’ general vocational pathways. It focuses on business students’ perceptions of the influential vocational factors affecting their career choice. The investigations of these important factors will give us a further understanding of the process of career choice among business students. Additionally it could also help accounting academics, the professional accounting body and other interest groups in the accounting sector develop more effective strategies to entice as many business students as possible into the accounting profession.

The structure for the remainder of the paper will be as follows. In the next section, a brief overview of the CPA scheme in Japan is discussed. Following this section, previous...
literature will be reviewed and a hypothesis developed for empirical testing. The research method will then describe how the study will be administered followed by statistical analysis, interpretation, and discussion. In conclusion, the findings of this paper together with associated implications will help address major career issues encountered by Japanese tertiary students in relation to the CPA profession.

Overview of the CPA Scheme in Japan

Unlike other western developed countries such as the USA, UK, Australia, and New Zealand, tertiary schools in Japan have developed around a unique accounting scheme. In Japan, the CPAs Law rules entry-level requirements for the CPA. This CPAs Law allows anyone to attempt the CPA examination without any specialist education (The CPAs Law, 2003, Art. 2–5). This is in direct contrast to the accreditation process observed in many other countries. Students simply need to pass the special two-part CPA examination in Japan in order to become a CPA. The first examination comprises four subjects using multiple-choice type questions. Successful students then complete the second examination, which involves descriptive type questions covering five different areas.

Before attempting the CPA examination, students usually either have studied independently at university in any discipline or have attended a private cram school, which provides special tuition in examination preparation. In 2002, new accounting education institutes known as ‘accounting schools’ were established. These professional graduate accounting schools provide specific accounting education to meet entry-level requirements prescribed by the International Federation of Accountants’ International Education Standards (IES). To date, 17 accounting schools have been established in Japan. Graduates from the accounting schools are granted exemption for three of the four multiple-choice subjects in the first CPA examination.

Competition in the original CPA examinations was extremely high. The success rate hovered between approximately 6.6% and 8.6% of all examinees. The CPAs Law was revised in 2003 in an attempt to increase the number of applicants and to encourage more applicants from various backgrounds to sit the CPA examination. It is anticipated that this reform will have the effect of more than doubling the number of CPA candidates by 2018 (Financial System Council, 2002). However, as shown in Figure 1, trends for the first stage of this CPA reform have not yet had the desired outcomes.

Literature Review and Hypothesis Development

As little accounting career choice research has been conducted in Japan, the theoretical framework for this current study will be based on prior studies from overseas. Numerous research studies have addressed an array of factors affecting student career choices. Brown et al. (2002) claims Parsons (1909) as the forerunner who advocated a conceptual framework in helping to explain a person’s career choice. Several researchers attempted to expand Parson’s theory, by introducing and developing the so-called ‘trait and factor theory’. Much of the current career choice research actually originated from this trait and factor theory. According to Ginzberg et al. (1951, p. 197), the trait and factor theory is explained as follows:

Occupational choice is a compromise whereby an individual hopes to gain the maximum degree of satisfaction out of his working life by pursuing a career in which he can make as much use as possible of his interests and capacities, in situations which will satisfy as many of his values and goals as possible.
The trait and factor theory has been widely applied to the psychological development of general vocational selection theory. Much of the accounting literature has also addressed psychological factors influencing a student’s career choice. For instance, Thielens (1966), Ashworth (1969), Carpenter and Strawser (1970) in the USA, and Evans (1974) in Canada, conducted empirical studies to identify the relative importance of the psychological traits and factors within accounting graduates as they choose their careers. These studies attempted to determine students’ preference toward certain attributes and relate these to their future employment.

Recent studies have expanded the trait and factor theory and focused on possible vocational factors that may influence students’ career choice. For example, Paolillo and Estes (1982) examined the influence of several career choice factors within the four different professions of accounting, law, mechanical engineering, and physics in the USA. They compared the differences in responded mean scores between 12 synthesized factors that were used in the previous studies by Ashworth (1969) and Carpenter and Strawser (1970). These studies in the USA found that accountants who already had made their career choice regarded the attributes of employment opportunities and earning potential as paramount in their career choice. These two aspects were found to be statistically different when compared with the other professions.

Other studies investigated similar influential factors but, unlike Paolillo and Estes (1982), they explored the difference in significance of particular factors under different cohorts. For example, Inman et al. (1989) collected their sample from students studying accounting and finance majors in US universities. They investigated students’ career preferences using 15 job-related factors regardless of occupation. Along a similar theme, Gul et al. (1992) focused on the difference in Australian students’ cognitive styles regarding career choice and investigated special characteristics within the two different groups classified by Witkin et al.’s (1971) Embedded Figures Test (EFT). According to the EFT, a field-dependent group is assumed to adopt a more analytical approach to organizing one’s perceptions and a field-independent group is more influenced by their social and economic environment. The results of t-tests indicated that the field-dependent group tended to be influenced by the views of others.

During the past decade, studies have also concentrated on trying to find relationships between accounting students’ career decisions and the influence of vocational factors. Felton et al. (1994) examined the correlation between the decision of students in Canadian business majors to choose a career as chartered accountants and 18 vocational influential factors that were investigated in previous studies. The results of multi-discriminate regression analysis discovered that Canadian students with accounting majors appeared to place higher emphasis on good long-term earnings and promising job availability. Non-accounting students on the other hand placed considerably less emphasis on these factors. Similar results were found by Hermanson et al. (1995) and Felton et al. (1995). Felton et al. (1995) employed an integrated social psychology framework called the Theory of Reasoned Action (TRA) in an attempt to ascertain the perceived components of a student’s accounting career choice.

In exploring the factor issue further, a New Zealand study conducted by Ahmed et al. (1997) factorized several targeted vocational attributes that had been examined in prior studies. This was pursued in order to identify coherent sub-groups of item/s based on variances drawn from respondents’ beliefs of the accounting profession. By profiling the allocation of these vocational factor ratings, one could explain the vocational selection process that motivates students with greater accuracy.

More recently, both Allen (2004) in the USA and Tan and Laswad (2006) in New Zealand explored students’ personal perceptions, perceptions of important people and
perceived control regarding vocational choice of accounting professions using the Theory of Planned Behavior (TPB). Employing the unique psychological analysis model of the TPB, both studies commonly reported that there were significant differences in personal perceptions and perceived control factors between accounting students and non-accounting students.

Accordingly, it is apparent that previous literature has contributed widely to an understanding of vocational decision-making processes and important career choice factors for business students including those with accounting majors. However, there is an urgent need to clarify the current position of this issue in Japan where such studies have received little attention. Of this limited research, Sugahara and Boland (2006) for instance explored tertiary business students’ perceptions of the CPA in Japan. Their study attempted to identify the differences in perceptions of several factors between students who sought a CPA career and those who did not. Although this study was the first such research conducted in Japan to investigate students’ perceptions of the influencing factors, it simply focused on the perceptions of the accounting profession.

This study attempts to extend the previous research mentioned above and aims to provide insights into the factors that affect students’ general vocational pathways. To achieve this purpose, our study examines the important factors that influence students’ vocational choice. This current study does not explore students’ perceptions of the accounting profession but rather focuses on the employment factor profiles that drive students. In the process of this analysis, sampled students were classified as either accounting students who seek a Certified Public Accounting (CPA) career and non-accounting students who wish to pursue a career other than as a CPA. The primary aim of this analysis is to identify differences in vocational factor profiles affecting students’ career choice between accounting students and non-accounting students. Similar comparative studies have been performed previously. For example, the US study of Ahmadi et al. (1995) conducted two factor analyses to compare the influential factor profiles in career choice between male and female accounting professionals. They discovered that there is a difference in profiles factorized from 27 attributes across these two groups. Although Ahmadi et al. (1995) targeted the difference in gender, a similar research method to that used is adopted for this study.

This present study can add value to past research by investigating students’ factor profiles that affect their career choice. Many of the prior studies ignored Ginzberg’s (1951) original trait and factor theory and indicated that vocational choice is a compromise among several influential factors. While much literature has succeeded in finding significant vocational factors affecting accounting students’ career choice, these findings have not given a complete or clear picture of students’ factor profiles or indeed possible interactions among these factors. Our study used factor analysis in order to clarify the holistic profile and relationship among the various factors. Emanating from the above literature reviews and discussions the following hypothesis in null form is developed for the study:

\[ H_0: \text{There is no difference in the profiles of influential factors affecting career choice between accounting students and non-accounting students in Japan.} \]

**Research Methodology**

(1) **Data Collection**

The data used in this study was collected via a questionnaire completed by students who were studying in various Japanese undergraduate and graduate universities. Sampled
students majored in business-related subjects such as business administration, finance, insurance, commercial law and accounting. Our sample also included graduate students studying at the accounting schools that were first established in 2002 specifically to provide students with a high quality professional accounting education. The questionnaires were anonymously distributed to the classrooms at three undergraduate schools, three graduate schools and two accounting schools towards the end of the first semester, 2005. Among 726 universities in Japan, these eight institutes were selected because they are considered more popular among students who wish to become CPAs. Respondents were not required to record their names or ID. To maintain anonymity, the surveys were conducted by researchers who were not responsible for course delivery. The respondents were given class time to complete their questionnaire with surveys collected immediately upon completion.

A total of 463 questionnaires were distributed and collected directly from the classrooms at each school. After eliminating unusable questionnaires, 373 effective responses (80.56% response rate) were used. Most of the unusable responses were due to the incompletion of the questionnaires. Table 1 displays the descriptive information of the sample. Our sample was categorized into two groups (accounting students and non-accounting students) according to their career intention of becoming a CPA or not. The sample comprised 279 males (74.79%) and 94 females (25.20%), with 99 students seeking a CPA career (26.54%) compared to 274 students who sought other careers (73.46%).

Average age of the student groups were 25.33 for accounting students and 26.48 for non-accounting students. A t-test analysis confirmed that there was no significant difference in age between the two student groups. Accordingly, this study examined sample groups in terms of other demographic factors such as gender, academic status, and job experience.

### Table 1. Descriptive information.

<table>
<thead>
<tr>
<th></th>
<th>Accounting students</th>
<th>Non-accounting students</th>
<th>t-test (sig)</th>
<th>Chi-square (sig)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of students</td>
<td>373</td>
</tr>
<tr>
<td>Average age</td>
<td></td>
<td></td>
<td>(Min–Max)</td>
<td></td>
</tr>
<tr>
<td>Male (1)</td>
<td>25.33 (19–53)</td>
<td>26.48 (18–57)</td>
<td>−1.288 (0.199)$^b$</td>
<td>26.17</td>
</tr>
<tr>
<td>Female (2)</td>
<td>19 (19.2%)</td>
<td>75 (27.4%)</td>
<td>2.427 (0.119)$^a$</td>
<td>279</td>
</tr>
<tr>
<td>Job experience</td>
<td></td>
<td></td>
<td>1.432 (0.231)$^a$</td>
<td>–</td>
</tr>
<tr>
<td>Non-job exp. (0)</td>
<td>64 (64.6%)</td>
<td>131 (47.8%)</td>
<td>8.086 (0.004)$^a$</td>
<td>195</td>
</tr>
<tr>
<td>Paid job exp. (1)</td>
<td>35 (35.4%)</td>
<td>143 (52.2%)</td>
<td>–</td>
<td>178</td>
</tr>
</tbody>
</table>

$^a$Applied chi-square test.

$^b$Applied t-test.

Note: Gender: 1, male; 2, female. Academic status: 1, undergraduate; 2, graduate. Job experience: 0 for no job experience; 1 for paid job experience (assigned 2 for unskilled manual worker; 3 for general trained office worker; 4 for vocationally trained craftsperson, technician, nurse, artist or equivalent; 5 for academically trained professional; 6 for manager of one or more subordinates; 7 for manager of one or more other managers).
experiences. Each factor was coded (see Note in Table 1) and the chi-square test applied to examine significant differences in these demographic factors between accounting students and non-accounting students. The results reported significant differences only in job experiences. The higher proportion of non-accounting students with paid job experiences indicated significant evidence that they have or have had more paid-job experiences than accounting students. These attributes left questions of homogeneity between the two student groups and must be considered when drawing interpretations from our primary analyses.

(2) Questionnaire Development

The questionnaire collected background information from students and their response to 18 influential attributes that may affect their vocational selection process. These attributes, as shown in Table 2, were mainly replicated from previous literature used by Paolillo and Estes (1982), Kochanek and Norgaard (1985), Felton et al. (1994), Hermanson et al. (1995), Felton et al. (1995), Ahmed et al. (1997) and Auyeung and Sands (1997). Students were asked to rate all 18 attributes on a five-point Likert scale, where a score of one indicated the factor had no importance on career choice and a score of five indicated their response as very important. A different scale was applied to three questions regarding persons’ influence where a score of one indicated the factor had no influence on career choice and a score of five indicated their response as strongly influenced.

(3) Statistical Analysis

Factor analysis was selected as the prime method for our study. This method is usually conducted by using a combination of factor extraction and factor rotation. It is possible to use the factor extraction method to identify any underlying latent patterns of relationships among students’ vocational attributes. This has the effect of condensing the gathered information into smaller and more meaningful components or factors. The factors were identified by determining the optimal combination of attributes, which enabled more of the variance in the data to be explained compared to any other variable combinations. Among several factor extraction methods available, the principal component analysis was selected for this study simply because it is one of the more commonly used today. The optimal numbers of factors were determined by applying the most commonly used eigenvalues-greater-than-one rule (Kim and Mueller, 1978). The two factor analyses were applied to both the accounting and non-accounting student groups.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Parents</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Peers (classmates)</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Business people</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Chance to make a contribution</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Nature of the job</td>
<td>14</td>
</tr>
<tr>
<td>6</td>
<td>Element of variety and adventure</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>Flexibility in career option</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Interaction with others</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>Good long-term earnings</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 2. Attributes influencing a student’s vocational selection
In terms of factor rotation, the Promax rotation technique was applied to assist us in the interpretation of potential influential factors. This method has also been widely used in previous studies, for example by Ahmadi et al. (1995). Following the analysis of these vocational attributes, a descriptor was assigned to properly reflect the meaning of the factor and grouped attribute. The results of this factor analysis were then assessed and compared to the different profile patterns for vocational factors between accounting students and non-accounting students.

Results

Exploratory factor analyses were conducted to develop specific factor profiles for both accounting students and non-accounting students. The results are shown in Table 3 for accounting students and Table 4 for non-accounting students.

In terms of using the eigenvalues-greater-than-one rule, six factors were identified for accounting students and five factors identified for non-accounting students. These results explained 67.61% and 58.66% of total variance and 0.691 and 0.745 of the KMO adequacy values for accounting students and non-accounting students respectively. The Promax method was selected for rotation, and all attributes with factor loadings of more than 0.5 were retained for the purpose of this analysis.

Table 3. Factor loading on career choice decision for accounting students

<table>
<thead>
<tr>
<th>Factor descriptions</th>
<th>Factor loading</th>
<th>Variables describing this factor</th>
<th>Eigenvalues</th>
<th>Variance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1 Intrinsic value</td>
<td>0.828</td>
<td>Chance to make a contribution</td>
<td>4.145</td>
<td>23.028</td>
</tr>
<tr>
<td></td>
<td>0.809</td>
<td>Nature of the job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2 Career prospects</td>
<td>0.918</td>
<td>A structured career path</td>
<td>2.523</td>
<td>14.019</td>
</tr>
<tr>
<td></td>
<td>0.791</td>
<td>Advancement opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.574</td>
<td>Social prestige</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 3 Job market considerations with employability</td>
<td>0.947</td>
<td>Job availability</td>
<td>1.988</td>
<td>11.044</td>
</tr>
<tr>
<td></td>
<td>0.655</td>
<td>Security of employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.531</td>
<td>Flexibility in career options</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.523</td>
<td>Element of job variety and adventure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 4 Working environment</td>
<td>0.869</td>
<td>Sufficient time for social life</td>
<td>1.289</td>
<td>7.163</td>
</tr>
<tr>
<td></td>
<td>0.691</td>
<td>Length of work hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.660</td>
<td>Good physical working condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 5 Financial rewards</td>
<td>0.808</td>
<td>Good long-term earnings</td>
<td>1.210</td>
<td>6.720</td>
</tr>
<tr>
<td></td>
<td>0.717</td>
<td>Good initial salary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 6 Persons’ influence</td>
<td>0.865</td>
<td>Peers (classmate)</td>
<td>1.014</td>
<td>5.635</td>
</tr>
<tr>
<td></td>
<td>0.623</td>
<td>Business people</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.541</td>
<td>Parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>67.609</td>
<td></td>
</tr>
</tbody>
</table>
These two factor analyses revealed several differences in vocational factor profiles between accounting students and non-accounting students. From Tables 3 and 4, the factors constructed in the profiles of each students group were not exactly the same (see discussion in the next section). Moreover, the number of factors emerging after loading was different: six factors for accounting students and five factors for non-accounting students respectively. Accordingly, the results of these factor analyses indicated that our null hypothesis for this study should be rejected.

Our study also conducted a supplementary t-test analysis to observe potential differences of the 18 vocational factors between students with and without job experience. This additional test was conducted in an attempt to examine homogeneity of two student groups. The results of the t-test are reported in Table 5 and revealed significant differences in only three of the attributes—‘Good initial salary’, ‘Job availability’, and ‘Interaction with others’ at the less than 1% level.

Finally, Table 6 shows the inter-factor correlations between all factors extracted by factor analysis. The maximum figures of inter-factor correlations were 0.378 between factor 2 and factor 3 for accounting students, and 0.462 between factor 1 and factor 3 for non-accounting students. While the correlation of 0.462 for non-accounting students was relatively higher, it was still acceptable in the absence of multicollinearity.

**Interpretations**

The distinctive difference between the two groups was the components of its factors and factor descriptions. First, the largest factor for accounting students was interpreted as ‘Intrinsic Value’ constructed using the two attributes of chance to make a contribution and nature of job. Intrinsic value was specifically defined in prior studies (Felton et al.,...
1994; Ahmed et al., 1997) as the factor relating to one’s satisfaction derived from jobs, which provide the chance to be creative, autonomous, intellectually challenging and working in a dynamic environment. However, among the five factors obtained for non-accounting majors, there was no ‘Intrinsic Value’ in their factor profile. Instead, the first factor chosen by non-accounting students was ‘Career Prospects’, which included the four attributes of structured career path, advancement opportunities, social prestige

Table 5. t-test results between students with and without job experience

<table>
<thead>
<tr>
<th>Factor</th>
<th>Students with paid job experience</th>
<th>Students without job experience</th>
<th>t-test</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>3.15</td>
<td>3.28</td>
<td>1.038</td>
<td>0.300</td>
<td></td>
</tr>
<tr>
<td>Peers</td>
<td>3.05</td>
<td>3.06</td>
<td>0.092</td>
<td>0.926</td>
<td></td>
</tr>
<tr>
<td>Business people</td>
<td>3.67</td>
<td>3.79</td>
<td>0.928</td>
<td>0.354</td>
<td></td>
</tr>
<tr>
<td>Good long-term earnings</td>
<td>3.98</td>
<td>4.11</td>
<td>1.411</td>
<td>0.159</td>
<td></td>
</tr>
<tr>
<td>Good initial salary</td>
<td>2.67</td>
<td>3.14</td>
<td>4.032</td>
<td>0*</td>
<td></td>
</tr>
<tr>
<td>Job availability</td>
<td>3.08</td>
<td>3.40</td>
<td>2.959</td>
<td>0.003*</td>
<td></td>
</tr>
<tr>
<td>Flexibility in career option</td>
<td>3.68</td>
<td>3.72</td>
<td>0.378</td>
<td>0.705</td>
<td></td>
</tr>
<tr>
<td>Advanced opportunities</td>
<td>3.56</td>
<td>3.68</td>
<td>1.161</td>
<td>0.247</td>
<td></td>
</tr>
<tr>
<td>A structured career path</td>
<td>3.61</td>
<td>3.55</td>
<td>−0.520</td>
<td>0.603</td>
<td></td>
</tr>
<tr>
<td>Chance to make a contribution</td>
<td>4.27</td>
<td>4.31</td>
<td>0.411</td>
<td>0.681</td>
<td></td>
</tr>
<tr>
<td>Social prestige</td>
<td>3.73</td>
<td>3.66</td>
<td>−0.764</td>
<td>0.445</td>
<td></td>
</tr>
<tr>
<td>Nature of job</td>
<td>4.62</td>
<td>4.61</td>
<td>−0.079</td>
<td>0.937</td>
<td></td>
</tr>
<tr>
<td>Length of work hours</td>
<td>3.21</td>
<td>3.22</td>
<td>0.006</td>
<td>0.995</td>
<td></td>
</tr>
<tr>
<td>Interaction with others</td>
<td>3.32</td>
<td>3.61</td>
<td>2.850</td>
<td>0.005*</td>
<td></td>
</tr>
<tr>
<td>Sufficient time for personal life</td>
<td>3.54</td>
<td>3.64</td>
<td>1.020</td>
<td>0.308</td>
<td></td>
</tr>
<tr>
<td>Good physical working condition</td>
<td>3.47</td>
<td>3.65</td>
<td>1.680</td>
<td>0.094</td>
<td></td>
</tr>
<tr>
<td>Security of employment</td>
<td>3.67</td>
<td>3.83</td>
<td>1.503</td>
<td>0.134</td>
<td></td>
</tr>
<tr>
<td>Element of variety and adventure</td>
<td>3.77</td>
<td>3.79</td>
<td>0.156</td>
<td>0.877</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the level of less than 0.01.

Table 6. Inter-factor correlations

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2</td>
<td>0.108</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 3</td>
<td>0.224</td>
<td>0.378</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 4</td>
<td>−0.026</td>
<td>0.140</td>
<td>0.308</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Factor 5</td>
<td>−0.102</td>
<td>0.203</td>
<td>−0.094</td>
<td>−0.027</td>
<td>1</td>
</tr>
<tr>
<td>Factor 6</td>
<td>0.117</td>
<td>0.149</td>
<td>0.227</td>
<td>0.315</td>
<td>0.032</td>
</tr>
</tbody>
</table>

(a) For accounting students

(b) For non-accounting students

Factor 1 | 1        |          |          |          |          |
| Factor 2 | 0.076    | 1        |          |          |          |
| Factor 3 | 0.462    | 0.070    | 1        |          |          |
| Factor 4 | 0.168    | 0.063    | 0.148    | 1        |          |
| Factor 5 | 0.164    | 0.256    | −0.080   | 0.015    | 1        |
and good long-term earnings. While several prior studies have examined similar attributes using different factor descriptors such as social issues (Hermanson et al., 1995) and materials (Auyeung and Sands, 1997), these descriptions were too narrowly defined to describe all four attributes as one grouped factor. Therefore, for this study, ‘Career Prospects’ refers to all four attributes. For accounting students, the factor ‘Career Prospects’ comprised the second largest factor and explained 14.02% of total variance. However, this factor for non-accounting students contained the extra attribute of good long-term earnings. To distinguish this difference clearly, the first factor for non-accounting students refers to ‘Career Prospects with good long-term earnings’ while the second factor for accounting students is referred to as simply ‘Career Prospects’.

The second largest factor for non-accounting students was interpreted as the factor of ‘Working Environment’. Although both accounting students and non-accounting students consider this as one of the influential factors, accounting students ranked it as the fourth factor. In the previous studies, Buckley and McKenna (1973) similarly regarded attributes such as length of work hours and other physical working conditions, as crucial aspects of employees’ job motivation, which would affect one’s career choice. However, for this study, it was found that this factor contained the three following attributes: sufficient time for social life, length of work hours and good physical working conditions.

The third largest factor for both accounting students and non-accounting students was interpreted as ‘Job Market Considerations’. This factor also has been observed in previous studies (Felton et al., 1994; Ahmed et al., 1997). The two attributes of element of job variety and adventure and flexibility in career options were incorporated into this factor for both students groups. However, the comparison of components revealed distinctive differences between accounting students and non-accounting students with accounting students emphasizing the two components of job availability and security of employment as their major influencing variables. Some prior studies indicated that these components could be treated and described as labor market factors (Paolillo and Estes, 1982; Kochanek and Norgaard, 1985; Ahmed et al., 1997). For our study, ‘employability’ was combined with ‘Job Market Considerations’ to form part of the third factor for accounting students.

The ‘Person’s Influence’ factor ranked relatively lower for both student groups in deciding their vocational choice—the sixth for accounting students and fourth for non-accounting students. The empirical study by Inman et al. (1989), Silverstone and Williams (1979) and Mauldin et al. (2000) reported that parental influence was relatively stronger. Similarly, Cohen and Hanno (1993); Allen (2004) and Tan and Laswad (2006) discovered that close friends and business friends have exercised significant influence on students’ major choice when studying accounting.

Another distinctive difference between accounting students and non-accounting students was the ‘Financial Rewards’ factor. Financial reward has been regarded as an important factor that affects a student’s career choice decision in many prior studies. (Paolillo and Estes, 1982; Kochanek and Norgaard, 1985; Inman et al., 1989; Adams et al., 1994; Felton et al., 1994; Ahmed et al., 1997). In this study, this factor, comprising good initial salary and good long-term earnings was ranked down the scale at number five for accounting students. For non-accounting students, on the other hand, the ‘Financial Rewards’ factor did not exist. Nevertheless, it is believed that the attributes of financial rewards were integrated with other attributes to form different factors. As mentioned above, the attribute ‘good long-term earnings’ was combined with the largest ‘Career Prospects’ factor for the non-accounting student group. Similarly, good initial salary, which is also regarded as one of the attributes belonging to ‘Financial Rewards’, was combined with job availability. This new factor was ranked as the fifth factor for non-accounting students and was interpreted
as ‘Initial Advantages’. The prior study by Hermanson et al. (1995) indicated that ‘Initial Advantages’ was considered as the most influential vocational factor.

With regard to job experience, descriptive information obtained from our sample showed significant differences in job experience between accounting students and non-accounting students. Additionally, our supplementary t-test found that there are significant differences in the factors in Table 6 between students with and without job experience. Of the three attributes, good initial salary and job availability were common attributes for both accounting and non-accounting students. From our t-test result, it was found that students who do not have job experience perceived these two attributes to be more important than students with job experience did. In contrast, interaction with others was eliminated by the factor analysis from the factor profile for accounting students.

The question now arises as to whether such differences in two attributes may give a significant impact on the development of vocational factor profile for each student group. In this context, it is interpreted that these differences have only limited influences on the profile, because both attributes formed part of the factors that were ranked relatively lower as shown in both Tables. In fact, job availability was contained in the third factor and good initial salary in the fifth factor of the vocational factor profile for accounting students. Moreover, these two attributes were included in the fifth factor of the profile for non-accounting students. Accordingly, regardless of some significant differences in job experience between accounting and non-accounting students, it is doubtful whether these differences have sufficient impact on altering profiles or changing the order of component factors for both student groups. This is because the influences of these two attributes seemed to be less effective in varying the factor profiles.

Discussion

As noted above, the results of our factor analysis for accounting students revealed that the major influential factor was ‘Intrinsic Value’. Our study also reports that the factor ‘Career Prospects’ is ranked as the second most important factor for accounting students. In contrast to accounting students, non-accounting students showed that the profile of ‘Career Prospect with long-term earnings’ as their most important factor.

Previous studies overseas have indicated that the attitude of non-accounting students toward the accounting profession is relatively less positive compared to those of accounting students (DeCoster and Rhode, 1971 in the USA; Taylor and Dixon, 1979 in New Zealand; Mladenovic, 2000 in Australia). These studies emphasized the need to improve the negative intrinsic images and attitudes of non-accounting students by providing them with more details regarding the nature and interest that does exist within CPA positions. However, according to the result of our factor analysis, emphasizing the aspect of ‘Intrinsic Value’ in a CPA career is unlikely to attract these students, because this factor was not prominent in the vocational factor profiles of non-accounting students. Accordingly, educators should take note that the promotion of the CPA in the classroom is not necessarily the most effective method of encouraging non-accounting students toward the accounting profession. To inform them of the array of opportunities available in a CPA career will be the better promotion tool in order to attract them to a CPA career pathway, since their primary motivational factor from our analysis was found to be ‘Career Prospects with good-long term earnings’. The additional attribute of good long-term earnings in this factor may imply that career prospects includes the emphasis of economic factors for non-accounting students because this factor sometimes connects to materialistic benefits from the position.
In contrast, to retain accounting students on a CPA pathway, accounting educators and the professional body should emphasize intrinsic values when trying to motivate students. In this respect, practices from overseas may give us a more appropriate direction to follow. For instance, the American Institute of Certified Accountants (AICPA) publishes a brochure called *The CPA Profession: Create Your Own Success Story* (http://www.aicpa.org/nolimits/nav/caprolfile.asp), with case studies of accounting professionals from many different industries. Providing similar publications or information would enable students to develop their own ideas about intrinsic values of CPA careers. However, the Japanese Institute of Certified Public Accountants (JICPA) has failed to develop such useful tools to communicate with the CPA candidates and students. Our study suggests that the JICPA should urgently develop special schemes to facilitate the efficient dissemination of career information.

The findings also suggested that accounting students seem to be quite sensitive to ‘Employability’ when it comes to ‘Job Market Considerations’. While this factor was ranked number three for both accounting and non-accounting students, the sub-section for accounting students contained two specific attributes of job availability and security of employment. It is suggested that the drastic drop in the number of CPA examinees in 2005 was partly because of the employability issues for CPAs in Japan (Sugahara et al., 2006). Therefore, the results of this study confirmed that both the professional institutes and the accounting firms need to produce greater efforts in enhancing employment opportunities within the Japanese CPA job market.

The fourth and fifth factors for accounting students were ‘Working Environment’ and ‘Financial Rewards’. Both factors are common in terms of physical benefits. Several prior studies overseas examined and found that these factors have significant influence on a student’s career choice in relation to accounting (Paolillo and Estes, 1982; Kochanek and Norgaard, 1985; Inman et al., 1989; and Adams et al., 1994 in the USA, and Felton et al., 1994 in Canada, and Ahmed et al., 1997 in New Zealand). In contrast, the finding of our study in Japan indicated that these were ranked as only minor factors. A possible reason for this is that it may have long been believed in Japan that the CPA is a profession with security and the number of CPAs with government certification is very small (Sugahara et al., 2006).

Conversely, the factors of ‘Working Environment’ and ‘Job Market Considerations’ were also ranked relatively higher for non-accounting students. This also suggests that, for a successful promotion to this group, it is necessary to emphasize the importance of economic factors and materialism surrounding an accounting career, rather than the mental factors such as occupational intrinsic values that were more important to accounting students.

It is interesting to note that the factor ‘Persons’ Influence’ was ranked fourth for non-accounting students and sixth for accounting students. Accordingly, this factor appears to have weaker influences on students’ career choice than originally anticipated. Prior studies discussed the effectiveness of this factor but have failed to agree on this issue. Some studies particularly in the USA insisted that ‘Persons’ Influence’ is very important to a student’s career choice (Paolillo and Estes, 1982; Cohen and Hanno, 1993) while studies in other countries have not supported this impact (Gul et al., 1989 in Australia, and Ahmed et al., 1997 in New Zealand). The result of this current study in Japan supports the latter studies, which indicate that promotional activities involving other parties may be relatively less effective in encouraging business students toward a CPA career. So by inviting accounting practitioners into the classroom as guest speakers, may not be as influential for business students as previously thought. However, it remains uncertain as to why the impact of a ‘Persons’ Influence’ is different.
in the results between our study and previous studies. This allows opportunities for further research.

Although ranked at number five, ‘Initial Advantages’, which is the condition prevailing at the entry stage or when people start working, may have a slight but distinguishable effect on non-accounting students. In this study, both job availability and entry salary were treated as one vocational factor at job entry stage. Therefore, a career pathway for non-accounting students may be driven by these attributes in the short-term compared to accounting students who tend to place more emphasis on the holistic economic aspects. This aspect should also be considered by the professional body and accounting firms when developing remuneration schemes.

Conclusion

The purpose of this study was to examine the differences in influential factor profiles in career choice between accounting students and non-accounting students. The results of our empirical study indicated that there were distinct differences in the vocational factors between these two groups. Our study also suggests implications for accounting educators, the professional body and accounting firms when developing and maintaining the attractiveness of the CPA in accordance with the results of the statistical analyses.

There are some limitations to this research. Firstly, our study left open to a certain degree the question of homogeneity between the two student groups. Its impact, however, was considered of limited consequence and so acceptable in this study. Nevertheless, our study failed to clearly distinguish the amount of work experience undertaken by students between the two students groups. Since it is now becoming common for students to enter graduate schools without resigning from their current positions in Japan, our study failed to incorporate this issue into the model and so further research could be deemed necessary to overcome this limitation.

Secondly, the study only sought students’ perceptions regarding attributes influencing their career intentions. Such criteria have previously been used in overseas studies and were chosen in this study for comparative purposes only. As a result, our study may have given little opportunity for the respondents to add in extra factors that could be unique to Japanese students. Moreover, this study ignored the effects on career choice of personal values. For example, Japanese students’ strong emphasis on certification security could be related to their personal traits such as uncertainty avoidance or individualism. Students’ learning style, which is regarded as one of the cognitive styles, may also be related to a student’s career choice (Kolb, 1984).

The third major limitation of this study was that it focused on the domestic population. Since some of the findings in this study were unique to specific traits identified in Japan, it is difficult to discuss this issue without international comparative studies. Such studies together with further research to include why some students avoid an accounting career even before entering university while others change from accounting after they have commenced their tertiary studies in Japan are being considered by the authors.

Putting these limitations aside, the results of this study do provide clear evidence that different vocational factor profiles exist between accounting and non-accounting students when it comes to choosing a career in accounting. Our study employed similar factors used in previous overseas studies and found that the importance of the factors perceived by students in Japan varies considerably. The results and interpretations of this present study will contribute to the building of appropriate guidelines to attract tertiary students toward the CPA profession in Japan.
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Appendix: Questionnaire
(This questionnaire was translated into English from the original Japanese version)

Demographic Information

Please answer or tick one of the following boxes for each question.

1. What is the name of your University and in which School (or Graduate school) are you currently studying?
   University .................................
   School ................................. or Graduate School .................................

2. What is your current student status and in what year at university are you studying?
   (Please tick):
   □ Undergraduate
   □ Graduate
   Current year of study? ................................. year
3. In what main subject areas are you currently majoring? (Please tick):
- Commerce
- Business Administration
- Finance
- Economics
- Accounting
- Insurance
- Marketing
- Information Technology
- Not Decided yet
- Others (Please describe if you choose this option ..................................)

4. What is your age? ..................................................

5. What is your gender?
- Male
- Female

6. If you currently have or have had paid employment, what kind of job was it / is it?
- No paid job (includes full-time students)
- Unskilled or semi-skilled manual worker
- General trained office worker or secretary
- Vocationally-trained craftsperson, technician, nurse, artist or equivalent
- Academically-trained professional or equivalent (but not a manager of people)
- Manager of one or more subordinates (non-managers)
- Manager of one or more other managers

7. What is your nationality? ..................................................

Your career choice:
In this section, we are seeking your general perceptions and attitudes toward your career choice. Please answer or tick one of the following boxes for each question.

1. How much are (or were) you influenced by the following people in your career choice? (Please circle one response only to each question):

<table>
<thead>
<tr>
<th></th>
<th>No influence</th>
<th>An unlikely influence</th>
<th>Indifferent</th>
<th>Influenced</th>
<th>Strongly influenced</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Parents</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b Peers (classmates)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c People who are working in the field of your profession</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. How important are each of the following factors to you when considering your career options? (please circle only one response for each question):
Factors | No importance | Little importance | Indifferent | Important | Very important |
---|---|---|---|---|---|
a Nature of the job | 1 | 2 | 3 | 4 | 5 |
b Good long-term earning potential | 1 | 2 | 3 | 4 | 5 |
c Good initial salary | 1 | 2 | 3 | 4 | 5 |
d Job availability | 1 | 2 | 3 | 4 | 5 |
e Security of employment | 1 | 2 | 3 | 4 | 5 |
f Element of variety and adventure | 1 | 2 | 3 | 4 | 5 |
g Flexibility in career options | 1 | 2 | 3 | 4 | 5 |
h A structured career path | 1 | 2 | 3 | 4 | 5 |
i Advancement opportunities | 1 | 2 | 3 | 4 | 5 |
j Chance to make a contribution | 1 | 2 | 3 | 4 | 5 |
k Social prestige | 1 | 2 | 3 | 4 | 5 |
l Length of work hours | 1 | 2 | 3 | 4 | 5 |
m Interaction with others | 1 | 2 | 3 | 4 | 5 |
n Sufficient time for personal life | 1 | 2 | 3 | 4 | 5 |
o Good physical working conditions (good ventilation and lighting, adequate space) | 1 | 2 | 3 | 4 | 5 |

3. As for your career choice in the near future, what area or industry have you decided or intend to work in? Please select one response from the following boxes. (Please tick):

- [ ] CPA (or CA)
- [ ] Other accounting career
- [ ] Banking
- [ ] Brokerage/investments
- [ ] Other financial
- [ ] Law
- [ ] Economics
- [ ] Marketing
- [ ] Personnel management
- [ ] General management
- [ ] Computer/IT career
- [ ] Other—please indicate

THE END
Thank you for your cooperation