

**CONTRIBUTION OF PERSONAL DOMAIN OF SPIRITUAL  
WELL-BEING AND FAMILY SUPPORT OF UNIVERSITY  
STUDENTS (MAJOR IN ACCOUNTING) IN MACAU TO THEIR  
ACADEMIC PERFORMANCE**

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**ABSTRACT**

This study aimed to examine the contribution of the personal domain of spiritual well-being of university students (major in Accounting) in Macau and family support to their academic performance. Survey data were collected from 101 accounting students of a Macau tertiary institute. The questionnaire was partly adapted from the spiritual well-being measure developed by Gomez and Fisher (2003). A comparison study with another university accounting program (n=133) of a similar study by Pong (2017) in Hong Kong was shown. Both two student samples' results demonstrate that the accounting student's academic performance was contributed positively by the personal domain of spiritual well-being and the family support factors as father's job level and mother's education level, while the student's part-time work experience exercised negative impact. Parents' job level and education level were peculiar and hardly modified. Unfavorable family support factor as student part-time work was suggested to be modified to a favorable factor, such as accounting career development-based internship.

**Keywords:** personal domain, spiritual well-being, family support, academic performance

## **Introduction**

Student academic performance has long been a remarkable area for accounting educators, students, and parents to investigate factors, methods, and settings for improvement. Accounting education success is recognized to possess an affirmative contribution to society. It is reflected in higher productivity levels and in improving the living standards of young accounting professionals (IFAC Education Committee, 2003). Karreman, *et al.* (2007, p. 473) claimed, “The need for upgrading of accounting education in many parts of the world has been demonstrated”. Besides academic factors, such as program structure, course curriculum, contents, and instructor course delivery, empirical research about the influence of students’ family support factors and personal factors have been increasingly important and relevant to improve student performance (Messah and Dalia, 2017).

The primary objective of the current study was to study personal factors and family background factors that are remarkable and important to contribute to the academic performance of accounting program students. Personal factors as a sense of identity, self-awareness, joy in life, inner peace, and meaning in life were first set into the variable, personal domain of spiritual well-being (Gomez and Fisher, 2003) for analyzing the role of personal factors in student’s academic performance in accounting studies. The study also investigates the role of family background factors (parents’ job level and education level, part-time work experience of student), and identifies these impacts on the students’ academic performance.

Student performance was regarded to be the result of personal factors and family factors in addition to academic factors (Diaz, 2003). The significance of the current study emanates from the fact that it is differentiated from former studies by recognizing two issues. The first is to identify the contribution of a personal domain of spiritual well-being to student academic performance. The second is to suggest an alternative for handling student’s inborn background factors which are hard to modify or change. Once clarified the related situations, these background factors can be suggested to be coordinated with other academic factors for improving student academic performance. It is trusted that this study contributes remarkably to the existing literature of accounting education, especially in developing regions such as the Macau Special Administrative Region (SAR) of China.

The following development of the paper is organized as: Section 2 presents a literature review on the personal domain of spiritual well-being and the family support factors of students. Details about research methods in the studied regions, data collection results, analysis, and discussion are put in Section 3. Conclusion of the results, then implication and recommendation are presented in Section 4 and Section 5 respectively.

## **Literature Review**

### ***Spiritual Well-being***

Spiritual well-being can be split into two notions, spiritual and well-being. Spiritual is denoted as a concept associated with immateriality, metaphysics, and spirit (Gomez & Fisher, 2003). Well-being is usually used to designate the prestige of comfort, happiness, peace, and wellness (Ellison, 1983). Uniting these two notions, spiritual well-being represents the pleasant status of a person. It is also viewed as the act of conveying optimistic moods, performances, and views in relationships with oneself, others, the transcendent, and the environment (Gomez and Fisher, 2003). Beauty, contentment, forgiveness, happiness, harmony, honesty, humility, respect, mercy, and peace are major appearances of a person with solid spiritual well-being. A person with healthy spiritual well-being holds a pure meaning and purpose of life and he or she continuously engages in self-examination and self-reflection for further personal perfection (Emmons, 1999). In 1975, the National Interfaith Coalition on Aging (NICA) defined spiritual well-being as a person's relationship with appreciation and gratitude with oneself, community, the natural environment, and the Divine/God (Ellison, 1983; Gomez and Fisher, 2003). Fisher suggested similar concepts of spiritual well-being basing on the definition of NICA (Fisher 2000; Gomez & Fisher, 2003) and listed out four domains of spiritual well-being as (1) personal, (2) communal, (3) environmental, and (4) transcendental.

One domain intra-relates with oneself with regards to meaning, purpose, and values in life (Fisher, 2010). Gomez and Fisher (2003) developed five questions of the Spiritual Health and Life-Orientation Measure (SHALOM) for each of the four domains. The personal domain questions denote the meaning, purpose, and direction of individual life. They cover a sense of identity, self-awareness, joy in life, inner peace, and meaning in life. The communal domain questions extend to interpersonal relationships and communications. They comprise love of other people, forgiveness towards others, trust between individuals, respect for others, and kindness towards other people. The environmental domain questions cover relationships between the environment and individuals. They comprise connection with nature, awareness of breathtaking natural view, oneness with nature, harmony with the environment, and a sense of 'magic' in the environment. Self-awareness is the driving force or transcendent aspect of the human spirit in its search for identity and self-worth (Fisher, 2010). The transcendental domain questions pertain to the relationship and communication between the human beings and the transcendent (Gomez & Fisher, 2003). They link up a personal relationship with the Divine, worship of the Creator, oneness with God, peace with God, and prayer in God.

### ***Personal Domain***

Among the four SHALOM domains (Gomez and Fisher, 2003), the personal domain relates much to the initiation of learning by students' autonomous learning. The majority of academically outstanding students are likely to demonstrate decent spirits and character, such as

confidence, satisfaction, and fulfillment. In contrast, most of the weaker performed students may incline to show lower measures in the personal domain compared with others. Academically well-performed students are victors in their learning and their growth. So, they most are assured, optimistic and pleased in daily life. These students seem to show their better measures in the personal domain. Some of the specific features are identified, for instance, concentration, enthusiasm, and self-restraint.

The modern professional business environment and the transforming roles of the accountant highlight the need for a wider focus in accounting education. Critics of accounting education have articulated concern that less emphasis should be placed on technical skills and more emphasis on conceptual qualities and understanding of self-development (McGuigan, 2017). From the International Education Standards for Professional Accountants (IFAC Education Committee, 2003), among the five essential professional skills for professional accountants highlighted, three out of five, i.e. intellectual skills, technical and functional skills, and personal skills relate much with the personal domain. The other two skills, interpersonal and communication skills, as well as organizational and business management skills are a bit remote from a communal domain, environmental domain, and transcendental domain. On the contrary, the personal domain plays a highly important role in influencing the academic performance of accounting students.

### ***Student's Family Support***

Besides personal factors as reflected in the personal domain of spiritual well-being, student's family support in guidance, family life, and finance of the student's studies play important roles in shaping student's academic performance. It can be reflected through parents' education level, parents' job level, and student part-time work experience.

### ***Parents' Education Level***

Constantine, *et al.* (2006) identified that student's academic performance fundamentally related much to their parents' educational backgrounds. For instance, parents who have higher education qualifications and professional occupations would possibly have more financial resources and informative resources for developing students intellectually. These parents are more likely and able to arrange experienced private tutors for students before their higher education. Flannery (2012) illustrated students whose parents have higher education achievements, such as professional recognition (e.g. accountant, engineer, lawyer) and higher education level (i.e. Master degree and Ph.D.), tend to possess life satisfaction and have better academic performance. It is because parents with higher academic qualifications would definitely and directly cultivate their youth talents and potentials at their primary ages. These parents would usually inspire students to discover the surroundings and comprehend the world. Sense of awareness of external factors was important to the analytical skills of successful accounting students. McGilton, *et al.* (2012) also noted that students, whose parents have better

academic achievements, tend to nurture their personality, moral and character development. These parents nurture students to be responsible and caring persons rather than ironic and successful ones in the future. Responsibility and due care are essential to nurturing ethics in accounting students.

### ***Parents' Job Level***

Students with better resources (e.g. family income, books, private tuition) usually have more learning opportunities and can capitalize them for performing well in studies (Baker, Goesling, and Letendre, 2002). Parents with higher job levels are more likely to provide more learning resources to students. Parents are greater aggregate sophistication among families, which enables them to effectively devote resources to students' education performance. Chiu and Khoo (2005) discovered that students performed better or worse when parent job level exercised a significant effect on student academic performance. Ample resources in families offer students more learning opportunities, which students can use to study more. Well-educated parents normally earn higher incomes and are likely to purchase more and better educational resources for the students.

Parents with more financial wealth are likely to develop larger social networks of professional and educated people (Horvat, *et al.*, 2003). Students can benefit from these networks via immediate interactions with other parents in the networks to access more cultural and social resources. For instance, students' accounting internships in the summer can be arranged through parents' networking with accounting and/or finance professionals.

### ***Student Part-time Work Experience***

Watts (2002) specified the increasingly unsatisfied potential impact of part-time employment amongst full-time university students on their studies. Some students work well over 35 hours per week in term-time and hence have difficulties coping with their studies. They are hard to allocate sufficient time and effort to studies. Carney, *et al.* (2005) identified Scotland that part-time work possesses a highly unfavorable effect on both the mental and physical health of students. Long part-time working time increased the probability that the students performed weakly owing to less time spent on daily life and studies. Study mood and concentration are hence weakened.

General or clerical part-time job experience of students plays a negative role in accounting education. Students' part-time work employment is the most frequently quoted reason for absence in class. There was a clear positive relationship between class attendance and consequent academic performance (Paisey and Paisey, 2003; Kouliavtsev, 2013). Manthei and Gilmore (2005) considered that working part-time left less time than desired for studies. Jogaratnam and Buchanan (2004) identified that students who were balancing a full-time academic load along with a part-time job were likely to suffer from stress. Students take general

clerical part-time jobs mainly for earning money in the short term. Routine administrative work tasks cannot enhance students' professional skills and knowledge in accounting. The longer the part-time working time means the shorter the student time and efforts spent on studies. This universally applies to knowledge and technique demanded disciplines, such as accounting. Subsequently, student academic performance was poorer. Ford, *et al.* (2006) stated that the incidence of student part-time employment increases with detrimental effects on academic performance.

On the other hand, a general part-time job differs greatly from an internship. Career development-based internship can integrate learning from school with learning through practice, correlated reality, and theoretical concepts (Albu, *et al.*, 2016). Internship helps increasing student motivation for learning and better and clear responsibility for career management.

### **Accounting Study**

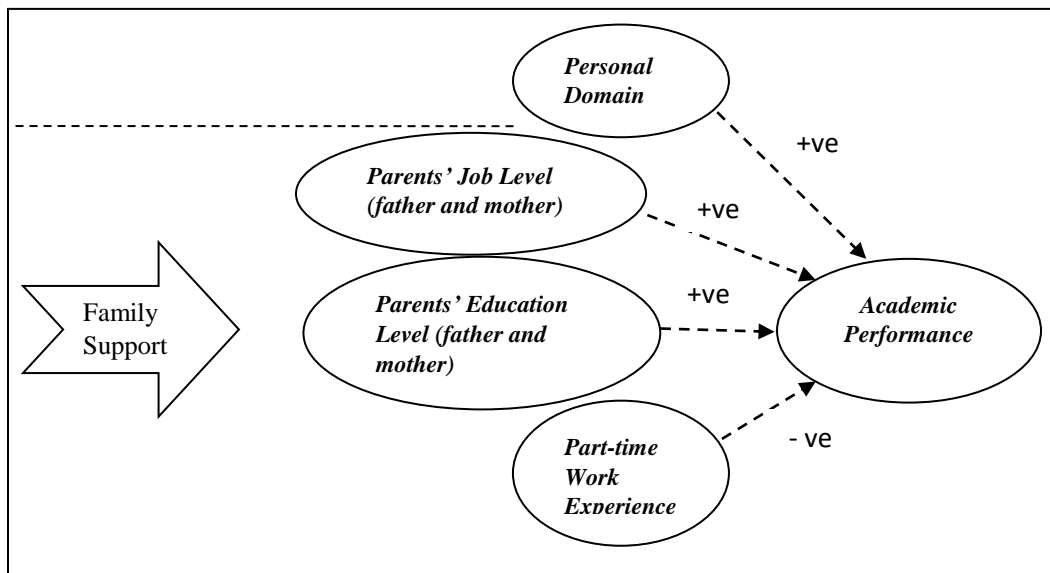
The Accounting study is to prepare students to meet the challenge of a rapidly growing and increasingly technology-dependent business environment with particular emphasis on the analytical, organizational, and professional skills required in main business and accounting functions. In addition to traditional technical and contemporary accounting skills and knowledge in preparing financial statements, accounting students are taught to expand their skill level with analytical reasoning, problem-solving, computing technology, presentation skills, as well as verbal and written communication abilities (IFAC Education Committee, 2003). With the advancement in information technology, mechanical and repeatable accounting computation can be handled by computerized programs, and accounting study has been changed to be more emphasized on financial data analysis and communication.

### **Macau Study**

Macau is a Special Administrative Region (SAR) of China. It is famous in the gaming industry and has a small population of around 660,000 people. After returning from a Portugal colony to reunite with China as a special administrative region in 1999, Macau has experienced rapid economic development which is also reflected in the education field. Nine tertiary institutes offer Accounting studies. The current study examines personal domain and family support that can affect student academic performances in terms of cumulative Grade-Point Average (CGPA) in the Accounting Programme of Macao Polytechnic Institute. It is the second-largest public tertiary institute offering professional Accounting studies in Macau and offers four-year bachelor's degree studies in Accounting. The students are Chinese and study Accounting programs in English. The factors chosen for this study were adopted and modified (where appropriate for Macau conditions) from the studies by Fisher (2000), Gomez and Fisher (2003), Marks, *et al.* (2001), and Carney, *et al.* (2005). The following factors, independent variables, were selected for the study.

- Personal domain (of spiritual well-being),
- Student part-time work experience,
- Father’s job level,
- Mother’s job level,
- Father’s education level,
- Mother’s education level.

Besides the personal domain, all the other five factors relate to family support. In addition, among them, only student part-time work experience is extrinsic and can be modified. The others are intrinsic. While searching for factors of academic performance, a better understanding of the determinants of learning effectiveness will improve the likelihood of achieving a preferred outcome. The research framework is shown in Figure 1.



**Figure 1: Research Framework about Academic Performance**

CGPA of student assessment results achieved in the final examination, mid-term test, quiz, presentation, project, homework exercises, and classwork exercises for studied subjects were used to measure student’s academic performance (Makay and Wagaman, 2016). Accounting student’s academic performance measured by CGPA is supposed to be positively affected by personal factors such as personal domain, and family support factors such as parents’ job level (father and mother) and parents’ education level (father and mother). Part-time work experience is regarded to exercise a negative impact on student’s academic performance.

### ***Survey Data Collection***

Referring to previous research findings (Gomez and Fisher, 2003; Marks, *et al.* 2001; Carney, *et al.*, 2005) and the Accounting Program curriculum of the Macao Polytechnic Institute, a



structured questionnaire was developed to collect a wide range of student data. Section A consisted of five questions selected from the personal domain of Spiritual Health and Life-Orientation Measure developed by Gomez and Fisher (2003). These five questionnaire items were: (a) sense of identity, (b) self-awareness, (c) joy in life, (d) inner peace, and (e) meaning in life. A five-point Likert-type scale was used for these questionnaire items. The score for questions in each domain ranges from 'very high' (5) to 'very low' (1).

Section B consisted of questions on demographic data as student CGPA scores in previous semesters, parents' job level, parents' education level, and students' part-time work experience. Student self-reported CGPA scores: six-point ordinal responses were used to report cumulative GPA ranks from the lowest of less than 1.5 to the highest of 3.5 to 4.0 (mostly A's) or equivalent. Parents' education level: Each student reported his or her father's and mother's highest level of education attained, according to an eight-point ordinal scale, ranging from (a) no formal education at all, (b) to primary schooling, (c) junior secondary schooling, (d) senior secondary schooling, (e) matriculated, (f) post-secondary, (g) university (bachelor degree level), and (h) postgraduate studies (master or doctoral degree level). Parents' job level: Each student reported his or her father's and mother's current occupation, according to a 10-point ordinal scale, ranging from : (a) unskilled laborers, (b) industrial operators, (c) craftsmen or repair mechanics, (d) skilled agricultural and fishery workers, (e) service or sales staff, (f) administrative support staff, (g) technicians or related support staff, (h) professional specialists or associate professionals, (i) executives, administrators, or managers, and (j) capitalists, businessmen, proprietors, or directors. Student's part-time work experience: Each student reported his or her part-time work experience according to a six-point ordinal scale, ranging from the lowest level of no experience to the highest level of 18 months or above part-time work experience.

The survey was conducted in Week two to four of Semester II in 2018 to all four-year students of the Accounting Program who had possessed experiences of university studies and examinations. The Accounting Program provided a survey population of 121. The questionnaires were distributed to students in classes. 101 useable questionnaires were received which represented a response rate of 83.5%. There were 54 female students and 47 male students. 74 were Macau students, and 27 students were from China.

## **Data Analysis**

To test the reliability of the research instrument, Cronbach's coefficient alpha analysis was conducted. The personal domain's Cronbach alpha ( $\alpha = 0.796$ ) was over 0.7 alpha value, which exceeded the critical watershed value (Bar-On, 2002). Hence the score was reliable. Spearman correlation was conducted to support correlation results among CGPA scores and other aforementioned factors in Table 1. All illustrated significant correlation results, yet student part-time work experience revealed a negative correlation with CGPA.



**Table 1: Spearman Correlation Results**

		CGPA	Father's Education Level	Mother's Education Level	Father's Job Level	Mother's Job Level	Personal Domain	Student Part-time Work Experience
<b>CGPA</b>	Correlation Coefficient Sig. (2-tailed) N	1.000 . 99						
<b>Father's Education Level</b>	Correlation Coefficient Sig. (2-tailed) N	.435** .000 96	1.000 . 98					
<b>Mother's Education Level</b>	Correlation Coefficient Sig. (2-tailed) N	.474** .000 99	.766** .000 98	1.000 . 101				
<b>Father's Job Level</b>	Correlation Coefficient Sig. (2-tailed) N	.371** .000 93	.474** .000 95	.388** .000 95	1.000 . 95			
<b>Mother's Job Level</b>	Correlation Coefficient Sig. (2-tailed) N	.286** .005 95	.471** .000 95	.456** .000 97	.524** .000 94	1.000 . 97		
<b>Personal Domain</b>	Correlation Coefficient Sig. (2-tailed) N	.276** .006 99	.280** .005 98	.200* .045 101	.105 .313 95	.176 .086 97	1.000 . 101	
<b>Student Part-time Work Experience</b>	Correlation Coefficient Sig. (2-tailed) N	-.487** .000 98	-.289** .004 97	-.344** .000 100	-.140 .174 95	-.127 .218 96	-.075 .461 100	1.000 . 100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## **Results and Discussion**

Analysis of the stepwise multiple regression results in Tables 2 and 3 indicated that personal domain of spiritual well-being, student's part-time work experience, father's job level, and mother's education level were significantly ( $p < 0.05$ ) associated with the CGPA scores. The regression model explained 37.4% of the variation in student performance of the accounting program ( $p < 0.001$ ).

Of the four independent variables included in the model, student's part-time work experience demonstrated a negative impact on the student's academic performance. The coefficients of partial correlations reported in Table 3 indicated that student's part-time work experience

possessed a major but negative correlation. The mother's education level possessed a major positive correlation, followed by personal domain and father's job level.

Table 2: Results of Multiple Regressions (Macau Student Samples)

<b>Independent Variable</b>	<b>Total</b>
Personal Domain (PERSONAL)	0.166 (0.080)
Student Part-time Work Experience (PTWORK)	-0.238 (0.088)
Father's Job Level (FATHERJOB)	0.094 (0.040)
Mother's Education Level (MOTHERED)	0.191 (0.072)
(Constant)	2.010 (0.531)
(Standard Errors are in Parentheses)	
Sample size	101
R <sup>2</sup>	0.402
Adjusted R <sup>2</sup>	0.374
F-Statistics	14.289
F-Significance	0.000

Table 3: Regression Summary for the Total Examination Scores (Macau Student Samples)

<b>Independent Variable</b>	<b>Tolerance</b>	<b>F-Statistics</b>	<b>F-Significance</b>	<b>Coefficient of Partial Correlation</b>
PERSONAL	0.975	2.078	0.041	0.220
PTWORK	0.879	-3.508	0.001	-0.356
FATHERJOB	0.819	2.359	0.021	0.248
MOTHERED	0.736	2.653	0.010	0.276
(Constant)		3.783	0.000	

Marks, *et al.* (2001) identified that the most essential socioeconomic dimension of students was parents' work status followed by their education and wealth. There was a significant statistical difference with the tertiary educational score about 10 points higher for students whose parents were well educated, especially for students with learned mothers. Mothers are the primary caregivers in families and their human capital is likely to affect the students' performances more than that of fathers (Chiu and Khoo, 2005). Mothers are likely to have more contact than fathers with students in a pre-university stage. Then the relatively high level of mother's education is expected to have positive and significant effects on student performance. Father's job levels reflect family support on students. A higher level of father's job level reflects more family support on student in academic performance. Slow learning students get the worst results and they are easily considered as failed learners. Thus, they can easily get lost in their learning and have pessimistic feelings. Average students are in between academically outstanding and weak students, so they are often compared with the students in these two groups. They can easily tend to have discriminatory, jealous, and suspicious states of emotion. Thus, they tend to have low spiritual abilities and understanding.

In the stepwise regression employed, tolerance factors of all independent variables were examined in each step. The tolerance factors in the model derived were reported in Table 4. All were higher than 0.5 and close to 1.0 which meant low inter-correlation (Myers, 1990, p.123). Although the tolerance factor of the mother's education level was comparatively less than those of the others, it was still much higher than 0.5 and hence was acceptable by the tolerance rule. Thus, multi-collinearity was not a problem in the study.

### ***Comparison with Hong Kong Accounting Student Samples***

Similar to Macau, Hong Kong is a nearby special autonomous region of China and adopts four-year bachelor degree studies in Accounting. The students are Chinese and study Accounting programs in English. A comparative study using Hong Kong data of a similar research setting was conducted. Data of 133 student questionnaires from the Accounting Program of the City University of Hong Kong were collected. There were 62 female students and 71 male students. 113 students were from Hong Kong, and 20 students were from China. The multiple regression model of Macau sampled accounting students showed a higher adjusted  $R^2$  of 0.374. Yet using the same set of independent variables for regressing against CGPA dependent variable in Hong Kong accounting student samples, the adjusted and significant  $R^2$  was 0.193. It might be explained by different demographic backgrounds, personal domain, and part-time work situations between these two nearby but different student populations. Tables 4 and 5 below illustrate Hong Kong accounting student sample results.

Table 4: Results of Multiple Regression (Hong Kong Student Samples)

<b>Independent Variable</b>	<b>Total</b>
Personal Domain (PERSONAL)	0.683 (0.131)
Student Part-time Work Experience (PTWORK)	-.034 (0.048)
Father's Job Level (FATHERJOB)	0.034 (0.031)
Mother's Education Level (MOTHERED)	0.065 (0.069)
(Constant)	1.432 (0.211)
(Standard Errors in Parentheses)	
Sample size	133
$R^2$	0.218
Adjusted $R^2$	0.193
F-Statistics	8.910
F-Significance	0.000

Table 5: Regression Summary for the Total Examination Scores (Hong Kong Student Samples)

<b>Independent Variable</b>	<b>Tolerance</b>	<b>F-Statistics</b>	<b>F-Significance</b>	<b>Coefficient of Partial Correlation</b>
PERSONAL	0.956	5.203	0.000	0.418
PTWORK	0.988	-0.701	0.484	-0.062
FATHERJOB	0.744	1.089	0.278	0.096
MOTHERED	0.723	0.086	0.932	0.082
(Constant)		2.805	0.006	

*Comment on the Similarities and Differences of Macau and Hong Kong Student Samples*

Both two student sample results supported the negative impact of student part-time work experience on student academic performance as CGPA. Yet the degree of regression model explanation as shown in Hong Kong student samples was lower. Other factors, not considered in the model, might have been taken place. This preliminary comparison study fulfilled its presence for serving as control by comparing with a nearby and similar student population. Similar to that of the situation of Macau samples, student part-time work experience contributed negatively to student academic performance. Besides the personal domain, the other factors contributed little but still significant partial correlations to the student academic performance.

This study demonstrated significant differences and positive relationships among university students’ spiritual well-being in the personal domain as a result of their different CGPA results. This finding for the personal domain was consistent with the studies by Walker and Dixon (2002), Flannery (2012), and Pong (2017).

**Implication and Recommendation**

Personal factors and family background have been remarkable and important issues to examine student learning outcomes. Five personal factors as a sense of identity, self-awareness, joy in life, inner peace, and meaning in life were first set into the variable, personal domain of spiritual well-being, for analyzing the role of personal factors in student’s academic performance in accounting studies. This research study also brings support to the findings of education research that family backgrounds (father’s job level, mother’s education level) possess positive consequences on the development of students’ academic performance. Whereas, the student’s academic performance was less than satisfactory if he or she devoted efforts to part-time work which was remote from the accounting program studies.

Favorable family support and positive personal domain could lead to stronger academic performance. Family support factors as father’s job level and mother’s education level were peculiar and were hardly modified. Nevertheless, unfavorable family support factors as student part-time work could be modified to accounting career development-based internship. The internship provides students with the opportunity to achieve professional accounting work

experience while undertaking their bachelor's degree studies. Work-related professional learning experiences provide students with exposure to actual working environments by placing them in accounting firms outside the university (Furco, 1996). Such internship experience is hence supposed to contribute to student learning. In addition, a personal domain could be strengthened through the development of a learning community. The students identified as having favorable family support and positive personal domain could be selected to lead the learning community and extra-curriculum activities of tertiary institutes. These would shed light and support on the weakly performed students.

The current study was conducted using student data of two tertiary institutes in Macau and Hong Kong respectively, and this limited the ability of generalization to other tertiary institutes. One recommendation for future research is to use the findings of this study for another comparative research study. Replication studies are desired to generalize the study results. It is important to confirm the external validity of the study findings by conducting a large-scale study on other tertiary institutes in the two regions. Furthermore, future research may include a qualitative study to cross-check the study findings.

## **Conclusion**

The personal domain of spiritual well-being to university students' academic performance in Macau has not previously been studied. The current study provides empirical evidence to support the existence of a positive relationship between the student's domain and academic achievement in accounting. The spiritual elements of the personal domain, such as inner peace, joy in life, and self-awareness, were found to express positive impacts on accounting education. Positive contributions were also found for student's family support factors as father's job level and mother's education level on students' academic achievement in accounting studies. These intrinsic and family support factors provide supportive backgrounds to aid student learning. Yet part-time work experience was identified to exert a negative impact on the student's academic performance. Part-time work mitigates student time and efforts used in studies. This extrinsic and family support factor is not inborn and hence can be altered to be contributive through diverting to the profession-related accounting internship. Albu, *et al.* (2016) found accounting career development-based internship was supportive of student academic performance. Work experiences in accounting, auditing, and/or taxation let students integrate accounting studies with practical accounting tasks. Students could learn accounting problem-solving skills and knowledge through work tasks undertaken in CPA firms.

As an empirical accounting education research in a small Southeast Asian city as Macau, the current study possessed three main limitations. First, a self-reporting method was used for the questionnaires. The respondents might have selected their preferred answers instead of their true answers. Moreover, they could have underrated or overrated themselves in the questionnaires.

Second, the generalizability of the findings in the study might be restricted because only a limited number of university accounting program students were studied. The number of the Accounting Program students (101) was comparatively small compared with the total population of university accounting students in Macau. The comprehensiveness and integrity of the phenomena might not be illustrated sufficiently. Third, the personal domain of the spiritual well-being measure was first developed in English and was then translated into Chinese (Fisher and Wong 2013). Some discrepancies in the meanings and interpretation of concepts and terms might still be present to affect the results.

## **References**

- Albu, N., Calu, D.A., and Guş, G.R. (2016). The role of accounting internships in preparing students' transition from school to active life. *Accounting and Management Information Systems*, 15 (1), 131-153.
- Astin, A.W., Astin, H.S., and Lindholm, J. A. (2010). *Cultivating the spirit: How college can enhance students' inner lives*. John Wiley and Sons.
- Baker, D.P., Goesling, B., and Letendre, G.K. (2002). Socioeconomic Status, School Quality, and National Economic Development: A Cross-National Analysis of the “Heynenan-Loxley effect” on Mathematics and Science Achievement. *Comparative Education Review*, 46, 291-312.
- Bar-On, R. (2002). *EQ-i: Baron Emotional Quotient Inventory: A Measure of Emotional Intelligence: Technical Manual*. Multi-Health System.
- Carney, C., McNeish, S., and McColl, J. (2005). The Impact of Part-Time Employment on Students' Health and Learning performance: A Scottish Perspective. *Journal of Further and Higher Education*, 29(4), 307-319.
- Chiu, M.M. and Khoo, L. (2005). Effects of Resources, Inequality, and Privilege Bias on Achievement: Country, School, and Student Level Analyses. *American Educational Research Journal*, 42(4), 575-603.
- Constantine, M., Miville, M., Warren, A., Gainor, K., and Lewis-Coles, M. (2006). Religion, spirituality, and career development in African American college students: A qualitative inquiry. *Career Development Quarterly*, 54(3), 227-241. Retrieved from ERIC database. (EJ741574).
- Diaz, A.L. (2003). Personal, Family and Academic Factors Affecting Low Achievement in Secondary School. *Electronic Journal of Research in Educational Psychology and Psych pedagogy*, 1 (1), 43-66.
- Ellison, C.W. (1983). Spiritual Well-being: Conceptualization and Measurement. *Journal of Psychology and Theology*, 11 (4), 330–340.
- Emmons, R.A. (1999). *The Psychology of Ultimate Concerns: Motivation and Spirituality in Personality*. New York, NY: Guilford Press.
- Fisher, J.W. (2000). Being Human, Becoming Whole: Understanding Spiritual Health and Wellbeing. *Journal of Christian Education*, 43 (3), 37–52.
- Fisher, J.W. (2010). Development and Application of a Spiritual Well-Being Questionnaire called SHALOM. *Religions*, 1, 105-121.
- Fisher, J.W. and Wong, P.H. (2013). Comparing Levels of Spiritual Well-being and Support among Pre-service Teachers in Hong Kong and Australia. *Religious Education Journal of Australia*, 29(1), 34.



Flannery, D.A. (2012). *A correlational study of the relationship of spirituality on college students' learning performance and demographic characteristics*. (Unpublished Doctoral dissertation, Capella University). Available from ProQuest Theses and Dissertations database. (UMI No. 3499913).

Ford, J., Bosworth, D., and Wilson, R. (2006). Part-time Work and Full-time Education. *Studies in Higher Education*, 20(2), 187-202.

Furco, A. (1996). Service-learning: A balanced approach to experiential education", in Taylor, B. (Ed.), *Expanding Boundaries: Service and Learning*, Corporation for National Service, Washington, DC, 9-18.

Gomez, R., and Fisher, J.W. (2003). Domains of Spiritual Well-being and Development and Validation of the Spiritual Well-being Questionnaire. *Personality and Individual Differences*, 35 (8), 1975–1991.

Horvat, E.M., Weininger, E.B. and Lareu, A. (2003). From Social Ties to Social Capital. *American Educational Research Journal*, 40, 319-351.

IFAC Education Committee (2003). *International Education Standards for Professional Accountants*, IES 1-6.

Jogaratham, G. and Buchannan, P. (2004). Balancing the Demands of School and Work Stress and Employed Hospitality Students. *International Journal of Contemporary Hospitality Management*, 16(4), 237-245.

Karreman, G.H., Ahern, J.T. Jr, Kuijl, J.G. and Marrian, I.F.Y. (2007). GAE 2007, trends in global accounting education. *Royal NIVRA*, Amsterdam.

Kouliavstsev, M.S.F. (2013). The Impact of Employment and Extracurricular Involvement on Undergraduates' Performance in a Business Statistics Course. *Journal of Economics and Economic Education Research*, 14(3), 53-66.

Manthei, R. and Cilmore, A. (2005). The Effect of Paid employment on University Students' Lives. *Education and Training*, 47(3), 202-215.

Marks, G., McMillan, J. and Hillman, K. (2001). Tertiary Entrance Performance: The Role of Student Background and School Factors. Australian Council for Educational Research, LSAY Research Reports, Victoria.

Massah, S.S.E. and Dalia, F. (2017). Predictors of Learning performance for Finance Students. *The International Journal of Educational Management*, 31(7), 854-864.

McGilton, K., Davis, A., Mahomed, N., Flannery, J., and Jaglal, S. (2012). An Inpatient Rehabilitation Model of Care Targeting Patients with Cognitive Impairment. *BMC Geriatrics*, 12, 1-11.

McGuigan, N. (2017). *A Phenomenographic Study of Students' Perceptions of Accounting*, Ph.D. dissertation, University of the West of England, Bristol, United Kingdom.

Myers, R.H. (1990). *Classical and Modern Regression with Applications*, 2<sup>nd</sup> ed., Duxbury Thomson Learning, 123.

Paisey, C. and Paisey, N.J. (2004). Student Attendance in an Accounting Module – Reasons for Non-Attendance and the Effect on Learning performance at a Scottish University. *Accounting Education*, 13(Supplement 1), 39-53.

Pong, H.K. (2017). The Relationship between the Spiritual Well-being of University Students in Hong Kong and their Learning performance. *International Journal of Children's Spirituality*, 22(2-3), 329-351.

Waksy, M.M. and Wagaman, D.D. (2016). Factors Associated with Student Performance in Upper-Level Undergraduate Accounting Courses: An Empirical Comparative Study at Commuter and Residential Schools. *Journal of Applied Business and Economics*, 18(5), 57-79.

Walker, K.L. and Dixon, V. (2002). Spirituality and Learning performance among African American College Students. *Journal of Black Psychology*, 28(2), 107-121.

Watts, C. (2002). The Effects of Term-time Employment on Learning performance". *Education + Training*, 44(2), 67-75.