

Prior Academic Performance and Passing Professional Accounting Examinations: Empirical Evidence from Malaysia

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ABSTRACT

Objective – The purpose of this research is to examine the relationship between prior academic performances at the secondary school level with passing professional accounting examinations.

Methodology/Technique – Data for this research was extracted from the database of the Department of Professional Accounting Studies, Faculty of Accountancy, Universiti Teknologi MARA. University Teknologi MARA or UiTM is the only local university offering professional accounting courses by the Association of Chartered Certified Accountants (ACCA) and is a Platinum Approved Learning Partner with ACCA. Data was extracted on the students' success in completing ACCA, together with results of the secondary school examination Sijil Pelajaran Malaysia (SPM). The population used in this study included students who had either successfully completed or did not complete their professional studies at the university. The sample consisted of 780 students, of which 400 had not successfully graduated and 380 had successfully graduated. Data from 780 students were used for the statistical analysis.

Findings – The study found that for successful completion of professional accounting examinations, receiving distinction in Additional Mathematics during SPM, scoring a maximum number of A's, and starting from the science stream were highly significant.

Novelty – This research is significant as it contributes to the literature on professional accounting education. It may be used to review prerequisites for entering professional accounting courses, which would help increase the number of professional accountants in Malaysia.

Type of Paper: Empirical

Keywords: Professional Accounting Qualifications; Success; Secondary School Performance; Examinations; English; Mathematics; Science; Malaysia

JEL Classification: M30, M31, M41.

1. Introduction

Most countries have adopted a system in which accounting candidates need to pass professional examinations to qualify as a registered accountant. The International Federation of Accountants (IFAC) defines a professional accountant as a person with a form of official qualification such as formal education, certification or chartering. Even though it is not currently a requirement to have a professional qualification to become a

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registered accountant in Malaysia, the importance of professional qualification has been made evident by the Committee to Strengthen the Accountancy Profession (CSAP)'s report on the strengthening of the Accountancy Profession in Malaysia, which proposes that the Malaysia Institute of Accountants (MIA) to require a professional qualification for chartered accountants in Malaysia (CSAP Report, 2014). The current system shows that graduates from many local universities with three years of minimum relevant working experience can apply as Chartered Accountants of Malaysia under Part I of the First Schedule of the Accountants Act, 1967. The proposal to make professional qualifications compulsory is intended to ensure quality of service for accountants in Malaysia (CSAP Report, 2014).

In qualitative terms, professional accounting examinations are perceived to be tougher than degree and diploma programmes of accounting (Mustapha & Hassan, 2012). Meanwhile, earlier studies have evidenced that university students' prior academic achievements are positively related to their future performance (Win and Miller, 2006; Seow, Pan and Tay, 2014). Hence, this study aims to examine the predictors of success in professional accounting examinations within the context of prior academic performance in secondary school. The study is significant as the Government of Malaysia, led by the Prime Minister Dato' Seri Najib Tun Razak, has announced initiatives such as the provision of scholarships to increase the number of professionally qualified Bumiputera accountants from 8% to 25% by 2020 (Utusan Malaysia, 2014). With that urgency, Yayasan Peneraju Pendidikan Bumiputera was launched to provide scholarships for Bumiputera students with high potential to pursue professional accounting qualifications (Economic Transformation Programme, Annual Report 2014). For this study, professional accounting examinations refer to examinations of the Association of Chartered Certified Accountants (ACCA) at University Teknologi MARA (UiTM). Finding the right candidates for this professional course is crucial as passing the professional accounting examinations is not easy. The findings from this study also provide insights for the government in forming strategies on accounting education and the profession as accountants and ensuring the resources allocated are justified.

2. Literature Review

Prior studies have contended that one reason for a positive relationship between prior academic performance and performance in tertiary education is that past performance represents a student's commitment level, diligence and intelligence (Guney, 2009; Seow, Pan and Tay, 2014). Given the difficulty of professional accounting examinations as evidenced by the global passing rate¹, commitment, diligence and intelligence are believed to be crucial determinants in passing professional accounting examinations. Although determinants of students' performance in the undergraduate accountancy degree programme have attracted significant research interest for almost thirty years (Tho, 1994; Alfian and Othman, 2005), there has been no study as yet on the determinants of success within the context of prior academic performance in professional accounting education. Indeed, research on professional accounting education is relatively rare despite the importance of professional accounting education in the profession (Flood and Wilson, 2008; Coetzee and Schumulian, 2012). To fill this gap, the current study investigates the predictors of success in professional accounting examinations within the context of prior performance.

A review of the literature demonstrates that high school performance influences the academic performance of students at university apart from students' personal background and characteristics (Win and Miller, 2006). Michaelowa (2007) suggests that certain minimum levels of enrolment at the primary and secondary level are a necessary condition for the development of functioning higher education. Isa et al. (1992) performed research at the University of Malaya and found that students with good grades in English in the SPM level tend to perform better than students with poor grades. Since professional accounting education is costly and perceived as difficult in Malaysia, the findings from the above studies show that examining similar variables in professional accounting education are worthwhile.

¹ the pass mark for all ACCA exams is 50 per cent

Some subjects in high school, such as mathematics, English and overall performance are crucial determinants of good performance at university. This is evidenced in Alfian and Othman (2005), who examined the performance of business and accounting students in Malaysia and found that mathematical knowledge obtained prior to entering university was crucial in promoting students' performance. Earlier studies such as that by Tho (1994) found that students' performance in the first-year accounting course at University Malaya is dependent on the results they obtain from their performance in Sijil Tinggi Pelajaran Malaysia (STPM) in (high school examination) Economics and Mathematics. Additionally, Gul and Fong (1993) suggested that students with strong mathematical backgrounds outperform students with weaker mathematical backgrounds. Furthermore, streaming at school, whether arts or science, is another determinant to influence the performance in tertiary education. For example, Almunais et al. (2014) found that students with a scientific background outperform humanities students, given their stronger preparation in mathematics. From the above, the current study proposes that those students with mathematical and science background are able to perform better in professional accounting examination. This current study examines the scope of success within professional accounting examinations. Success beyond tertiary education in term of professional accounting education is beyond the scope of this paper.

One study by example Onn (1999) on 6th form students in Malaysia found no significant relationship between performance in accounting paper and subjects taken at the SPM level.

Even though there are contradictory results in some studies, arguments about the influence of prior academic performance on performance at university are generally positive. The literature above is related to prior academic performance, prior academic success in Mathematics and English, higher chance of success among science stream students, accounting background and gender. We expect a positive relationship between prior academic performance with the success in professional accounting qualifications. Prior academic performance is examined in more detail.

Based on the literature above it is hypothesized as follows:

H1: The ability to graduate from professional examinations is significantly related to prior academic performance at school.

Accordingly, the detailed hypotheses are as follows:

H1a: The ability to graduate from professional examinations is positively related to distinction in English

H1b: The ability to graduate from professional examinations is positively related to the distinction in Additional Mathematics

H1c: The ability to graduate from professional examinations is significantly related to students who are from the science stream.

H1d: The ability to graduate from professional examinations is positively related to the number of A's a student obtains in SPM.

3. Research Methodology

Data collected from the Department of Professional Accounting Studies, Faculty of Accountancy, UiTM were analysed using quantitative methods. IBM SPSS Statistics 23 as used. Descriptive statistics, correlation, and regression were used to identify the relative importance of factors associated with professional accounting students' success.

The dependent variable in performing correlation and regression was whether or not the student had graduated with professional accounting qualifications. Four independent variables were included for the assessment, which includes being awarded distinction in secondary school for English and Additional Mathematics; being from the science stream; and having a higher number of A's (distinction). Additional mathematics is to signify the ability in math as it is close to normal distribution, therefore we can find the difference in the results. The variable of mathematics is dropped from the analysis as the variable of mathematics is highly skewed denoting most of the students in the sample score A in mathematics. The control variables are gender, entry route (after SPM or higher qualification), and taking accounting in secondary school

studies. Although some studies have shown an insignificant relationship between gender and performance in tertiary education, others have found contrasting results. Ho (2000) and Michaelowa (2007) found that gender does not have any influence on academic achievement in tertiary education. However, research such as that of Alfian and Othman (2005) has shown significant results in that female students perform better than male students in the undergraduate studies in Faculty of Business and Accountancy, University, Malaya. Prior research also argued that academic achievement relates to the attitude of students towards the subject, interest, time, perception of parental support, and teachers' influence and socio-economic status. Some of these elements are covered by the above variables and some are difficult to be measured.

3.1 Sample and Data Collection

The population used in this study was comprised of students who had either successfully completed or not completed their professional studies at the university. To ensure that only professional accounting students were surveyed, information was only taken from the students registered under the Department of Professional Studies from the Faculty of Accountancy. The sample consisted of 780 students, of which 400 had not successfully graduated and 380 had successfully graduated. All 780 students were used for the statistical analysis.

Additional analysis was performed on the data above using only students who had the Certified Accounting Technician (CAT) certificate prior to pursuing their professional examinations to further enhance the results of the first analysis. This sample consisted of 349 students.

3.2 Variable and Definition of Measurement

The dependent variable in this study is the ability to successfully graduate the professional accounting examinations.

Grad or Non-Grad: 1 refers to those who had successfully graduated, 0 refers to those who had not graduated

The independent variables in this study were SPM examination results in English and Add Math, science stream student, number of A's obtained in SPM, gender, and qualifications after SPM.

Table 1: Definition of measurement of independent variables

	English	Add Math	Science Stream	No of A's	Gender	After SPM Qualification (such as CAT)	Accounting background
1	A in SPM	A in SPM	From the science stream	Actual number of A's obtain for SPM	Female	With qualification	Took Accounting Principles
0	Other than A	Other than A	Not from the science stream		Male	Without qualification	Did not take Accounting Principles

4. Results

Results from descriptive statistics using correlations and regression are depicted in Table 2, Table 3 and Table 4. Results from additional analysis using only students with CAT qualification also produced similar results.

Table 2: Descriptive statistics

Statistics									
		Grad or Non-Grad	CAT or Non	English	Add Math	Science Stream	Account background	No of A's	Gender
N	Valid	780	763	776	701	780	780	780	780
	Missing	0	17	4	79	0	0	0	0
Mean		.49	.46	.60	.46	.71	.67	5.80	.67
Std. Error of Mean		.018	.018	.018	.019	.016	.017	.097	.017
Median		0.00	0.00	1.00	0.00	1.00	1.00	6.00	1.00
Mode		0	0	1	0	1	1	5	1
Std. Deviation		.500	.499	.491	.498	.455	.471	2.703	.472
Variance		.250	.249	.241	.248	.207	.222	7.307	.223
Range		1	1	1	1	1	1	12	1
Minimum		0	0	0	0	0	0	0	0
Maximum		1	1	1	1	1	1	12	1
Sum		380	350	464	319	552	521	4525	520

This table shows the descriptive statistics investigated in the study

Table 3: Correlation between dependent and independent variables

Correlations								
		CAT or Non	English	Add Math	Science Stream	Account background	No of A's	Gender
Grad or Non-Grad	Pearson Correlation	-.108**	.075*	.298**	.096**	.006	.258**	.091*
	Sig. (2-tailed)	.003	.038	.000	.007	.858	.000	.011
	Sum of Squares and Cross-products	-20.514	14.175	52.003	17.077	1.179	271.513	16.667
	Covariance	-.027	.018	.074	.022	.002	.349	.021
	N	763	776	701	780	780	780	780
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

This table shows the correlations between the dependent and independent variables investigated in the study

Table 4: Coefficient and regression

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.046	.073		.636	.525
	CAT or Non	-.203	.037	-.203	-5.492	.000
	English	-.051	.042	-.049	-1.218	.224
	Add Math	.116	.049	.115	2.363	.018
	Science Stream	.146	.047	.120	3.134	.002
	Account background	-.004	.040	-.003	-.088	.930
	No of A's	.057	.011	.284	5.328	.000
	Gender	.083	.038	.078	2.219	.027

Dependent Variable: Grad or Non-Grad; Model Summary: R^2 : .159, adjusted R^2 : .151, ANOVA F Value: 18.379 (significant at .000)

5. Discussion

The study found that to increase the chance of successfully completing the professional accounting examinations, distinction in Additional Mathematics during SPM, scoring a higher number of A's for SPM, and coming from the science stream was found to be significant. Female students are related to the success in professional accounting examinations. The findings may be used in advising candidates to choose certain courses after leaving high school. The results also show that not everyone is suited to join professional accounting programmes and that some candidates are better off to do other courses. Since the professional accounting examinations are internationally recognized and perceived difficulty, only candidates with certain merits are encouraged to join the programmes. Apparently, English is not a significant indicator in predicting success in professional accounting examinations, suggesting those candidates from rural areas lacking English proficiency, but seemingly good in other factors as found in this study are encouraged to join the professional accounting programmes.

Through the analysis above, we may conclude that the hypothesis that the ability to graduate from professional examinations is significantly related to prior academic performance at school is accepted. The hypothesis that distinction in English courses is a determinant is rejected, but all other detailed hypotheses are accepted.

6. Conclusion

The purpose of this study was to examine the relationship between secondary school performances with the performance in professional accounting examinations. The data was retrieved from the Department of Professional Studies, Faculty of Accountancy, UiTM Shah Alam, which was awarded Platinum Status by ACCA as an Approved Learning Partner. Data were taken from students enrolled between 2005 to 2015.

In conclusion, getting A's in Additional Mathematics for SPM examinations, coming from the science stream during secondary school, and scoring many A's for SPM significantly influence the success rate of students in obtaining their professional accounting qualifications. Consistent with prior studies (Seow, Pan and

Tay, 2014; Win and Miller, 2006; Alfian and Othman, 2005; Tho, 1994), previous academic performance is a significant indicator of performance in higher education. The students that join this professional accounting programme in UiTM score minimum of B in English. The insignificant results for English proficiency suggest that students need to have ability in English; however, they do not necessarily require distinction in English to excel in a professional accounting programme. This suggests that good students from rural areas who do not possess strong English skills are nonetheless encouraged to join a professional accounting programme as they have an equal chance to those with distinction in English to pass the professional accounting examinations.

The results will assist the government and educational institutions in reviewing the prerequisites for future student enrolment, to avoid a high number of drop-outs from the professional accounting programmes. In addition, these findings will help professional accounting bodies penetrate new markets, such as less-developed countries within ASEAN.

The limitation of this study is there are other factors associated with success of students' performance in the professional accounting programmes, such as parental and mentor support and personal matters. However, some of the factors are difficult to quantify. Future research can be performed in areas such as examining the relationship between secondary school performances with performance in other accounting courses such as diploma and degree. Furthermore, this research may be extended by reviewing soft skills or attributes other than academic performance during secondary school that may be required for success in achieving professional accounting qualifications.

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