A SURVEY ON QUALITY IN EDUCATION WITH RESPECT TO STUDENTS' APTITUDE

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ABSTRACT

Previous studies have examined various factors affecting the overall academic performance of accounting students in the education literature. In relation to this, a study was carried out to determine the best predictor of students' high performance in their accounting programmes. A questionnaire was developed and distributed to five public universities in the Klang Valley area; Universiti Islam Antarabangsa Malaysia, Universiti Teknologi MARA, Universiti Malaya, Universiti Kebangsaan Malaysia and Universiti Putra Malaysia. A total of 235 responses were received but only 213 were usable. Questions focused on six variables; motivation, the learning environment, exposure, aptitude, effort in terms of studying approaches and other factors such as family support and extracurricular activities. The results show that aptitude significantly affects student performance as compared to the other five variables. Thus, supporting previous research that aptitude is a significant predictor of student performance. The findings will provide valuable information to both educators and accounting students. Therefore, the study should give educators an empirical basis as to how to improve student performance and a guide to students on how to achieve success in their studies.

INTRODUCTION

Today, due to the constantly changing environment and different external pressures, some students go through university life with apathy and minimal input; some students feel that all they need is paper qualification and consequently nothing else matters. University is reduced to paper chase and high performance is sacrificed in the process. Therefore, positive attitudes need to be developed by students and they need to feel more motivated to achieve high performance in their studies.

Study is thought to be an individual matter; methods which suit some individuals may not suit others; and that different methods are appropriated to different subjects, thus study remains an art (Maddox, 1988).

The success of a student in his study is associated with performance in a particular course/programme. The performance level of a student varies in line with the many factors that contribute towards his performance.

What influences student learning and contributes towards his performance? There is a need to identify the significant factors affecting the overall academic performance of students.

Previous studies have examined many factors thought to influence student learning. Researchers have examined variables such as gender, race, aptitude, Grade Point Average (GPA), high school experience, college experience, motivation and expectations to identify characteristics of successful accounting students (Eskew and Faley (1988) and Doran et. al. (1991)). Conclusions from these studies have not provided strong and consistent evidence regarding student performance.

In the field of accounting, evidence from previous research shows that success in accounting can be said to be a function of general academic ability and some specific ability related to understanding the accounting environment and for dealing with accounting information.

A recent study conducted by Wooten (1998) which deals with general academic ability extended prior research by presenting a model that incorporates more factors into a single study than has prior research. Wooten examined both the business education literature and the general education literature to identify factors associated with high performance. The model includes several variables such as the effects of family activities, work activities, extracurricular activities and classroom environment, on accounting students' performance. Results show that aptitude and effort both significantly influence performance of accounting students. Effort was influenced by motivation, family responsibilities and grade history. Motivation in turn was motivated by the learning environment and self –expectation.

Moses (1987) found that both work experience in an accounting or finance-related position (work exposure) and independent, self-motivated exposure to accounting or financial-related ideas (independent exposure) provide students with an understanding of the business environment in which accounting operates which ultimately leads to high performance of accounting students. Such exposure may provide a perspective for better appreciating specific accounting topics.

The present study aims to replicate part of the research done by Wooten (1998) and Moses (1987). In the context of the present study, the subject of interest is final semester Bachelor in Accountancy students' performance. The researcher intends to study those factors which contribute towards the performance of Bachelors in Accountancy (BACC) students in five public universities. The results of this study would give educators an empirical basis as to how to improve overall student performance.

The Problem Statement

This study will investigate the factors which contribute towards students' performance in their degree in accountancy programmes. This investigation would primarily evaluate significant factors that contribute towards accounting students' performance. The results from the study is hoped to provide strong and consistent evidence regarding student performance to enable the development of successful accounting students through identification of their respective characteristics.

Two factors which have direct influence on student performance are the student's aptitude and the amount of effort the students puts forth in the course (Wooten, 1998). Students with higher aptitude and/or effort are hypothesized to perform better in class.

Since aptitude is a good predictor of performance, it is logical to predict that high aptitude has caused high achievement in students' performance. Effort has been shown to be a good predictor of performance in both the general education literature and the accounting education literature (Wooten, 1998).

Exposure to accounting and financial ideas through prior work experience or independent reading also predicts success (Moses, 1987). Those students in class who have gained exposure through work or independent reading tends to enrich the learning experience. Students apparently benefit from having some background or perspective from which to appreciate the specifics of accounting (Moses, 1987).

Objectives of the Study

To determine factors which contribute towards the performance of Bachelor in Accountancy students as follows:
(1)   To determine whether students' aptitude and effort contribute towards his performance in the degree programme.
(2)   To determine whether students' motivation affect the level of performance.
(3)   To determine whether a conducive classroom environment contribute towards students' motivation to perform.
(4)   To determine whether previous exposure in terms of work experience in an accounting or finance position contribute towards students' performance in the degree programme.
(5)   To determine whether previous exposure in terms of independent reading of business or financial publications contribute towards students' performance in the degree programme.
(6)   To determine other possible factors such as family support and outside activities that contribute towards students' success.

Variables

Dependent Variable   – Student's performance. This variable will be measured by students' Cummulative Grade Point Average (CGPA)
Independent Variables - will be measured by various variables as set out in the questionnaire.
(1)   Aptitude
(2)   Effort
(3)   Motivation
(4)   Learning Environment
(5)   Exposure to Accounting
(6)   Other Factors; Family Support and Extracurricular Activities

Scope of the Study

This study was conducted in Universiti Teknologi MARA, Shah Alam, Universiti Islam Antarabangsa Malaysia, Universiti Putra Malaysia, Universiti Malaya and Universiti Kebangsaan Malaysia focusing only on final semester Bachelor in Accountancy students.

LITERATURE REVIEW

Factors affecting students' performance have been examined in various studies. Variables such as gender, race, aptitude, Grade Point Average (GPA) scores, high school experience, college experience, motivation, expectations, working experience to identify characteristics of successful accounting students have been examined by researchers (Eskew and Faley, 1988; Doran et. al., 1991; Baldwin and Howe, 1982; Hill, 1998; Kapoor, 1986; Schroeder, 1986; Moses, 1987; Wooten, 1998). This section shall review related literature pertaining to accounting student performance.

Successful Students

Successful students can be identified by their characteristics other than by their grades or examination scores. Students who exhibit high performance are normally those who are hardworking, they have perseverance, highly motivated, effectively manage their time, have positive attitudes, confident in themselves and in what they do and have certain directions and goals or aspirations.

Factors such as academic intelligence, personal aspects relating to unique experiences and inherited traits and cultural factors which reflect conditioning of society or environmental pressures have been shown to affect student achievement (Maddox, 1988).

A research conducted by Fad and Ryser (1993), as mentioned by Wooten (1998), indicated that work habits such as listening, completing homework, following written directions, following teacher requests, and coming to class prepared, are all associated with successful students.

Students' Performance Measure

Previous studies have used Grade Point Average (GPA) scores, examination grades and subject grades as the dependent variables or the predictor of student performance. These grades or scores act as a form of measure of a student's performance. This measure determines whether a student graduates and later accesses to job opportunities.

Moses (1987) used undergraduate GPA to reflect general academic ability and numerical grade obtained in the first year financial accounting course to reflect the performance in accounting. Turner et. al. (1997) used financial accounting test grade as a predictor of students' performance.

From the discussions above, there is sufficient evidence to show that various studies used GPA, examination and subject grades as measures of performance.

For the purpose of this study, the Cummiulative Grade Point Average (CGPA) was used as the dependent variable and five independent variables to predict students performance. The following are literature reviews pertaining to the five main

independent variables; aptitude, effort, motivation, learning environment and exposure (work experience and independent reading).

A.   Aptitude and Effort

Today, it is a challenge for researchers and educators to improve both the quality of accounting education and the learning of accounting students. Accounting researchers have examined many factors thought to influence student learning. The student's aptitude and the amount of effort the student puts forth in the course have been found to be two main factors that have a direct influence on student performance (Wooten, 1998).

Students who are successful in multiple academic pursuits have been found to be students with high aptitude and who have likely developed high self-efficacy. According to Pajares (1996), as quoted by Wooten (1998), the self efficacy theory states that how individuals interpret their past performance influences their self-beliefs and therefore influences their future performance.

A multiple regression analysis conducted by Eskew and Faley (1988) examined accounting student examination performance and found that both aptitude and effort was significantly related to student performance.

Students can also achieve high performance by exerting a high level of effort (Wooten, 1998). Results from Wooten's study give instructors an empirical basis for motivating lower-aptitude students to put forth a greater level of effort.

Motivation

Student motivation has to do with a student's desire to participate in the learning process. Although students may be equally motivated to perform a task, the sources of their motivation may differ.

According to Marshall (1987), as mentioned by Lumsden (1994), motivation to learn is defined by one author as "the meaningfulness, value, and benefits of actual tasks to the learner, regardless of whether or not they are intrinsically interesting". Maslow's theory states that "when a need is unfulfilled, the individual will be motivated to fulfill that need. Once level needs are satisfied, higher level needs can be addressed and the individual will be motivated to satisfy those needs".

One of the significant findings by Harrell, Caldwell and Doty (1985) was that a student's motivation to strive for academic success is positively correlated with the student's actual behaviour (academic performance).

A study conducted by Turner et. al. (1997) found that students with greater ability and motivation exhibit a higher level of performance.

Learning Environment

Students' perception of the learning/classroom environment influences a student's motivation. Students will be motivated to perform well if they perceive the classroom environment to be conducive to learning.

Classroom climate is important because if students experience the classroom as a caring, supportive place where there is a sense of belonging and everyone heard and respected, they will tend to participate more fully in the process of learning thus student performance is enhanced (Lumsden, 1994).

Turner et. al. (1997), found that neither instructor characteristics nor class time had any effect on students' performance.

Exposure To Accounting

Success in accounting courses to a certain extent is said to be a function of specific ability related to the understanding of the accounting environment and for dealing with accounting information. Previous studies have cited previous accounting education would develop that ability.

A study by Moses (1987) hypothesized that abilities that lead to success in accounting courses can be developed through three different types of exposure; (i) prior undergraduate accounting course work, (ii) work experience in an accounting or finance position, and (iii) independent reading of business or financial publications. Both univariate (Spearman rank correlations) and multivariate (regression) tests was conducted. The test results show that, after controlling for general academic ability, grades in graduate accounting are predicted by work experience and reading frequency, but not by prior accounting course work (Moses, 1987). Work experience and reading frequency tended to reflect exposure to the larger business environment in which accounting operates. Students apparently benefit from having some background or perspective from which to appreciate the specifics of accounting. Exposure to accounting/financial knowledge through work experience and exposure through independent reading appears to be substitutes for each other.
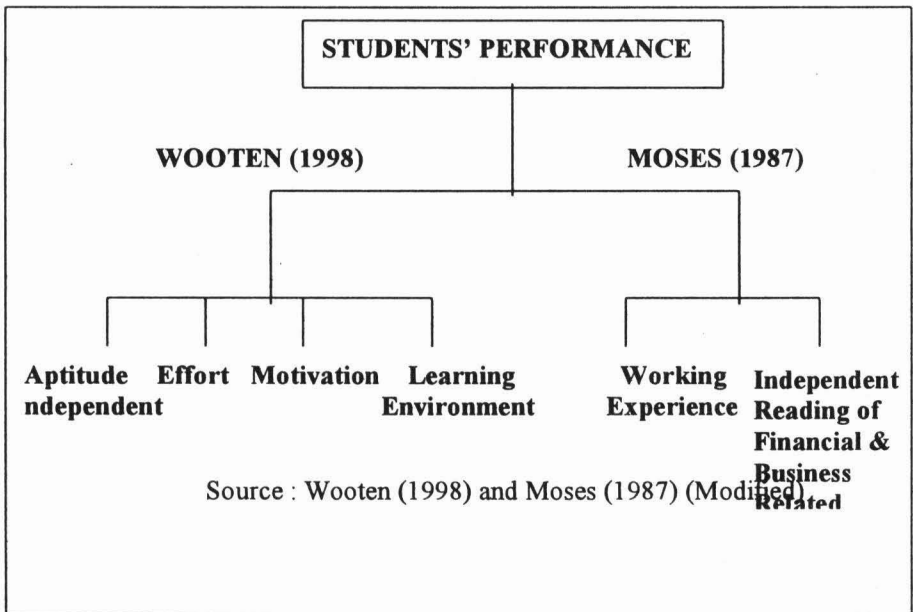
RESEARCH METHODOLOGY

Theoretical Model

The study to be conducted will concentrate on determining factors that contribute towards students' performance. Thus, Wooten's (1998) "Student Performance Model" and Moses's (1987) theory on exposure (work experience and independent exposure)

will be replicated. The models are chosen as both include several variables not examined in the accounting education literature to date, such as the effects of family activities, work activities, extracurricular activities, classroom environment, work experience in an accounting or finance- related position and independent exposure to accounting through reading, on student performance.

Figure 1: Theoretical Model

| STUDENTS' PERFORMANCE |
| WOOTEN (1998) | MOSES (1987) |

Aptitude Effort Motivation Learning   Working   Independent
ndependent   Environment   Experience Reading of
                                                        Financial &
                                                        Business
Source : Wooten (1998) and Moses (1987) (Modified)   Related

Research Questions

1. Do students' high aptitude and effort contribute towards their performance in the degree programme?
2. Do students who are highly motivated put forth a greater level of effort?
3. Does conducive classroom environment contribute towards students' motivation to perform?
4. Does previous exposure in terms of work experience in an accounting or finance position and independent reading of business or financial publications contribute towards students' performance in the degree programme?
5. Do other possible factors such as family support and extracurricular activities contribute towards students' success?

Hypotheses to be Tested

In order to answer the above research questions, the following hypotheses are used.

The research question will be investigated using the following research hypotheses:

H_1 : There is a significant relationship between motivation and students' performance

H_2 : There is a significant relationship between the learning

		environment and students' performance
H_3	:	There is a significant relationship between exposure in terms of related working experience and reading of business or financial related publications with students' performance
H_4	:	There is a significant relationship between aptitude and students' performance
H_5	:	There is a significant relationship between studying approaches and students' performance
H_6	:	There is a significant relationship between family support and extracurricular activities with students' performance

Research Strategy

The study aims to identify factors which contribute towards students' performance. The study was conducted on final semester, Bachelor in Accountancy students at five major public universities in the Klang Valley. Students involved in this study were randomly selected. The sample is taken from the Faculty of Accountancy only. The total number of respondents were 235 students but only 213 questionnaires were usable as shown in Table 1.

Table 1 : Total Respondents in order of University

	Name of institution	Number of students
1	Universiti Teknologi Mara (UiTM)	45
2	Universiti Malaya (UM)	45
3	Universiti Islam Antarabangsa Malaysia (UIAM)	41
4	Universiti Putra Malaysia (UPM)	42
5	Universiti Kebangsaan Malaysia (UKM)	40
	Total respondents	213

The respective lecturer in-charge or the Head of Department of each university was personally approached by the researcher to explain the purpose of the study and the help needed from them, and to seek their permission for the students to participate in the study. Once permission to distribute questionnaires was granted, the researcher briefed the lecturers attending to the study population about the study and its relevance, and arranged a date and time for administering the questionnaires.

One class each of BACC students who are currently in their final semester from each of the five universities constitute the study population. Students were requested to complete the questionnaires within a period of five to seven minutes and the researcher collected the questionnaires once completed.

Instrumentation and Measurement Procedures

Questionnaires were used to gather information from the subjects. The questions were replicated from a study by Wooten (1998) and Moses (1987) and developed to reflect the research objectives of this study.

The current study employs questions pertaining to motivation, extracurricular activities, work, family activities, student expectations and learning environment of Wooten's (1998) research questionnaire and Moses's (1987) questions pertaining to work experience and reading frequency. Subjects were asked to indicate the level of aptitude, effort, motivation, exposure, amount of time spent on outside activities and level of agreement with respect to the learning environment using a 5-point Likert scale. Likert-type items let subjects indicate their responses to selected statements on a continuum, from strongly agree to strongly disagree. An advantage of this type of item is that points can be assigned to the various responses, and thus measures of central tendency, variability, correlation, and the like can be calculated (Ary et.al., 1996).

Questions pertaining to Cummulative Grade Point Average (CGPA), gender, achievement and university are included under the demographic section of the questionnaire.

The objective of the questionnaire is to identify factors which contribute towards students' performance. The questionnaire covers aspects pertaining to motivation, aptitude, effort, learning environment and exposure in terms of working experience and independent reading of financial and business related publications.

The questionnaire is divided into seven sections consisting questions on; motivation, different aspects of the learning environment, exposure in terms of working experience and independent reading of financial and business related publications, students' aptitude towards the accounting course, studying approaches which directly relates to the students' level of effort, other factors that could affect student performance such as family support and extracurricular activities, questions regarding factors that would make an excellent and mediocre student and demographic profile of students inclusive of current Cummulative Grade Point Average (CGPA).

Pre-Tested Survey Instruments

A pilot test was randomly carried out on five students to gain feedback on the validity of the questions. In response to the feedback, some changes were made to the original questionnaire to ensure that students would be able to understand the questions without facing any difficulties in comprehension.

In order to assess the consistency and stability of the measurement scales, the reliability tests using Cronbach Coefficient Alpha was undertaken. Due to this study being an exploratory type of research, the acceptable internal reliability coefficient or

alpha is based on Nunnally's (1978) standard, that is 0.5 and above. The results of the reliability test can be seen in Table 2.

Table 2: Reliability Test Results of Pilot Samples

Pilot Test	Number of items	Alpha Score
Five students were chosen at random	80	0.7038

Statistical Analysis

Data obtained from the questionnaires were analysed using Statistical Package for Social Science (SPSS) release 10.0. The analysis of students' performance as captured by CGPA is hypothesized to be a function of five independent variables; aptitude, effort, motivation, learning environment and exposure.

The main objective of this study is to determine whether the independent variables mentioned affect students' performance.

The following are the statistical tests conducted on the data gathered:

• The coefficient of correlation was used in order to measure the strength, direction and significance of the bivariate relationships among the variables in this study. The sample coefficient of correlation is denoted r and the coefficients of correlation always lies between -1 and $+1$. There could be a perfect positive correlation between two variables, which is represented by 1, or there could be a perfect negative correlation, which would be -1. A zero correlation indicates that no relationship exists.

• The one-way analysis of variance (ANOVA) with post-hoc comparison was carried out to locate the significant differences between the means of each questionnaire response.

• The Stepwise Multiple Regression was employed to develop a subset of independent variables, which constitute aptitude, effort, motivation, learning environment and exposure in predicting performance of students. This particular statistical test is also used to eliminate those variables that do not provide additional prediction to the five mentioned independent variables in the basic model.

FINDINGS

This section comprises research findings and discussions from questionnaires distributed to respondents from the five selected public universities; UIAM, UiTM, UM, UKM AND UPM.

Findings respond to the objective of the survey; to determine factors which contribute towards students' performance. The following sections are discussed: (i) demographic characteristics, (ii) questionnaire responses,(iii) testing the hypotheses, (iv) multiple regression and the summary. Both descriptive and inferential analysis were used to analyze the data with the aid of the SPSS software version 10.0.
Demographic Characteristics

All respondents are in the final semester of their respective Bachelor in Accountancy programmes. The demographic characteristics selected for discussions are gender, respondents from the different local universities, academic achievement in terms of Dean's List award and current Cummulative Grade Point Average (CGPA) score.

Please see Table 3 for Summary of Respondents' Demographic Characteristics. This table shows the distribution of respondents from the five selected public universities. Respondents from UiTM and UM, represent 21.13% each of total respondents, 19.71% are from UPM, 19.25% are from UIAM, and 18.78% are from UKM.

Column three of Table 3 shows the distribution of total respondents according to gender. Majority of the respondents are female. UiTM has the highest frequency of female respondents that is 23.93%.

Table 3: Summary of Respondents' Demographic Characteristics

University	No. of respondents	Gender	
		Male	Female
UIAM	41 (19.25%)	9 (18%)	32 (19.63%)
UiTM	45 (21.13%)	6 (12%)	39 (23.93%)
UM	45 (21.13%)	12 (24%)	33 (20.25%)
UKM	40 (18.78%)	17 (34%)	23 (14.11%)
UPM	42 (19.71%)	6 (12%)	36 (22.08%)
Total respondents	213 (100%)	50 (100%)	163 (100%)

Questionnaire Responses

A summary of responses pertaining to respondents' working experience is presented in Table 4. Part (a); Working experience, presents the distribution of respondents who have had previous related working experience. Majority; 68.3%, of UIAM respondents and 40% of UiTM respondents have had previous working experience.

Table 4: Summary of Respondents' Working Experience

	University									
	UIAM		UiTM		UM		UKM		UPM	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
(a) Working experience:										
- Yes	28	68.3	18	40	23	51.1	21	52.5	21	50
- No	13	31.7	27	60	22	48.9	19	47.5	21	50
Total respondents	41	100	45	100	45	100	40	100	42	100
(b) Nature of business:										
- Financial institution	4	9.75	3	6.7	-	-	1	2.5	3	7.14
- Accounting firm	20	48.8	1	2.2	6	13.33	14	35	9	21.4
- Manufacturing co.	-	-	7	15.55	6	13.33	2	5	4	9.52
- Others	4	9.75	7	15.55	11	24.44	4	10	5	11.91
Total respondents	28	68.3	18	40	23	51.10	21	52.5	21	50
(c) Duration of employment:										
≤ 6 months	27	65.85	12	26.67	22	48.89	19	47.5	21	50
> 6 months	1	2.45	6	13.33	1	2.21	2	5	-	-
Total respondents	28	68.3	18	40	23	51.1	21	52.5	21	50

Part (b); Nature of business, shows the frequency of the type of business that respondents have had the opportunity to serve. Majority of the respondents; 48.8% in UIAM, 35% in UKM and 21.43% in UPM served in accounting firms. This is mainly due to practical attachment during the course of their programmes.

Part (c); Duration of employment, presents the frequency of respondents' duration of employment. Majority of respondents worked for 6 months and less. The highest frequency is respondents from UIAM that is 65.85%.

An analysis of each individual question using the 5-point Likert scale as response measures was performed. The mean and standard deviation of each university are examined to enable comparison. The one-way analysis of variance (ANOVA) with post-hoc comparison was carried out to locate the significant differences between the means of each questionnaire response.

Testing the Hypotheses

This section tests a set of hypotheses in order to answer the research questions of the current study. Table 5 is a summary of the correlation coefficients of CGPA with the independent variables of the regression equation and the associated significance levels (P-value), the mean and standard deviation (SD).

Table 5: Correlation Coefficients for Independent Variables with CGPA Performance

Independent Variable		Correlation Coefficient (R)	P- value	Mean	SD
Motivation	(Part A)	0.037	0.301	4.3881	0.6428
Learning Environment	(Part B)	0.009	0.452	4.2012	0.6914
Exposure	(Part C)	0.016	0.411	3.8495	0.8244
Aptitude	(Part D)	0.299	0.000*	3.8674	0.7786
Studying Approaches	(Part E)	0.060	0.196	3.5869	0.7795
Family Support and Extracurricular Activities (Part F)		-0.061	0.195	3.7207	0.8786

*Indicates Pearson Correlat on Coefficient (R) is significant at 5% statistical sig.
level (2 tailed)
test

Relationship between Motivation and Students' Performance

$H_0 1$:   There is no relationship between motivation and students' performance.
$H_1 1$: There is a significant relationship between motivation and students'
performance.

The relationship between motivation and students' performance in Table 5 as explained by the Pearson's correlation analysis is found to be positive, R-value is 0.037. However, the correlation is not significant since the P-value is more than 0.05. This shows that motivation will increase the students' performance but does not significantly contribute towards students' high performance.

There is no significant relationship between motivation and students' performance as measured by Cummulative Grade Point Average (CGPA). Therefore, the null hypotheses is not rejected since there is not enough statistical evidence to support the alternative hypotheses.

The mean score for motivation was 4.3881, proving that students' performance is highly motivated but dispersed from the mean with a standard deviation of 0.6428.
Relationship between the Learning Environment and Students' Performance

$H_0 2$: There is no relationship between the learning environment and
students' performance.
$H_1 2$: There is significant relationship between the learning environment
and students' performance.

As depicted in Table 5 the correlation between the learning environment and students' performance as measured by CGPA shows that the learning environment at 0.009

correlation, positively correlates with students' performance; students' performance will increase when the learning environment is conducive to learning. This independent variable is not significant since the P- value is more than 0.05. This shows that a conducive learning environment will increase students' performance but does not significantly contribute towards students' high performance.

There is no significant relationship between the learning environment and students' performance. Therefore, the null hypotheses is not rejected since there is not enough statistical evidence to support the alternative hypotheses.

The mean score for a conducive learning environment is 4.2012, proving that a conducive learning environment is correlated to students' performance but dispersed from the mean with a standard deviation of 0.6914.

Relationship between Exposure in terms of Related Working Experience and Reading of Business or Financial Related Publications with Students' Performance

H_03 : There is no relationship between exposure in terms of related working experience and reading of business or financial related publications with students' performance.

H_13 : There is a significant relationship between exposure in terms of related working experience and reading of business or financial related publications with students' performance.

The correlation between related exposure and students' performance as shown in Table 5 shows that related exposure at 0.016 correlation, positively correlates with students' performance; students' performance will increase when there is related exposure. This independent variable is not significant since the P- value is more than 0.05. This shows that related exposure will increase students' performance but does not significantly contribute towards students' high performance.

There is no significant relationship between related exposure and students' performance. Therefore, the null hypotheses is not rejected since there is not enough statistical evidence to support the alternative hypotheses.

The mean score for related exposure is 3.8495, proving that related exposure is correlated to students' performance but dispersed from the mean with a standard deviation of 0.8244.

Relationship between Aptitude and Students' Performance

H_04 : There is no relationship between aptitude and students' performance.

H_14 : There is a significant relationship between aptitude and students' performance.

Table 5 shows a high positive relationship between aptitude and students' performance; R value is 0.299 and the relationship is significant since the P-value at 0.000, is less than 0.05. This proves that an increase in aptitude will lead to an increase in students' performance.

Therefore, we reject the null hypotheses since there is sufficient evidence to support the alternative hypotheses.
Relationship between Studying Approaches and Students' Performance.

$H_0 5$: There is no relationship between studying approaches and students' performance.

$H_1 5$: There is a significant relationship between studying approaches and students' performance.

The correlation between studying approaches and students' performance in Table 5 shows an R-value of 0.060 which explains a positive correlation with students' performance; students' performance will increase with the most effective and efficient type of studying approach, i.e. effort.

However, there is no significant relationship between studying approaches and students' performance; P-value is 0.196 which is more than 0.05. Therefore, the null hypotheses is not rejected since there is not enough statistical evidence to support the alternative hypotheses.

Relationship between Other Factors such as Family Support and Extracurricular Activities with Students' Performance

$H_0 6$: There is no relationship between family support and extracurricular activities with students' performance.

$H_1 6$: There is significant relationship between family support and extracurricular activities with students' performance.

As shown in Table 5, the correlation between family support and extracurricular activities with students' performance is negative, R-value -0.61. The data gathered was examined and it was found that majority of respondents chose 'Strongly Disagree' on the 5-point Likert scale to the statement that extracurricular activities were distractions to students' performance. This significantly caused the R-value to be negative.

This shows that students' performance will not be affected when students take up extracurricular activities. Family support positively correlates with students' performance. The independent variable tested is not significant since the P-value is more than 0.05. This shows that family support and extracurricular activities does not significantly contribute towards students' performance.
There is no significant relationship between the family support and extracurricular activities with students' performance. Therefore, the null hypotheses is not rejected since there is not sufficient statistical evidence to support the alternative hypotheses.

The mean score for a conducive learning environment is 3.7207, proving that a conducive learning environment is correlated to students' performance but dispersed from the mean with a standard deviation of 0.8786.

Multiple Regression Analysis

The multiple regression analysis was carried out to obtain an equation that represents the best prediction of the dependent variable, students' performance, as measured by CGPA, from the six independent variables; motivation, the learning environment, exposure, aptitude, studying approaches and other factors such as family support and extracurricular activities.

All independent variables were utilized in the regression model. A general specification of the multiple regression model is mathematically reflected in the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6$$

Where:
Y = Dependent variable of performance which is measured by CGPA
β_0 = The constant variable
β_1 = Regression coefficient of motivation
X_1 = The independent variable of motivation
β_2 = Regression coefficient of the learning environment
X_2 = The independent variable of the learning environment
β_3 = Regression coefficient of exposure
X_3 = The independent variable of exposure
β_4 = Regression coefficient of aptitude
X_4 = The independent variable of aptitude
β_5 = Regression coefficient of studying approaches (i.e. effort)
X_5 = The independent variable of studying approaches (i.e. effort)
β_6 = Regression coefficient of family support and extracurricular activities
X_6 = The independent variable of family support and extracurricular activities

To investigate the joint contribution of independent variables working together, a stepwise multiple regression analysis was employed. Table 6 presents the stepwise multiple regression results together with the model's R^2 and F-values.

Table 6: Stepwise multiple regression model results; Standardised beta coefficients, T-statistics and Significance (Dependent: CGPA)

Variables in the equation	Standardised beta (β)	t-statistic	t-significance
Motivation	-0.020	-0.290	0.772
Learning Environment	-0.073	-1.046	0.297
Exposure	0.005	.067	0.947
Aptitude	0.299	4.461	0.000*
Studying Approaches	-0.011	-.152	0.879
Family Support and Extracurricular Activities	-0.066	-.983	0.327
Model Statistics: R^2 F-value	0.090 19.899		0.000

*Indicates significance at the 0.05 level (two-tailed test)

Results of the multiple regression analysis shows that R square (R^2) or the coefficient determinant is 0.090 with an F-value of 19.899, is significant at 0.000 which is less than P-value 0.05.

The R^2 of 0.090 means that 9% of the variance (R^2) in students' performance is explained by the six independent variables. The remaining unexplained variation may be due to some other factors affecting the CGPA performance that is beyond the scope of this study. There is a strong linear relationship between students' performance and the independent variables as reflected by the P-value (t-significance) of 0.00 (P-value is less than 0.05).

Based on the beta value and significant t-value shown in Table 6, only one variable is perceived to be the best predictor of students' performance. That variable is aptitude. This variable is significantly related to students' performance at 0.000 (P<0.05). The results of the regression analysis also show that aptitude exerts the greatest predictor; (β=0.299). Thus, we obtain a Model of Students' Performance Equation as depicted below:-

$$Y = \beta_0 + \beta_4 X_4$$
$$CGPA = \beta_0 + \beta_4 \text{Aptitude}$$

The other five variables, which are motivation, learning environment, exposure, studying approaches and other factors such as family support and extracurricular activities were found to contribute towards students' performance but not significantly, since their P- values are more than 0.05. These variables were not considered as good predictors of students' performance.

To further examine the strongest predictor of students' performance in terms of aptitude, the four aptitude questions in Part D of the questionnaire were regressed. The results are presented in Table 7.

Table 7: Stepwise multiple regression model results; Standardised Beta coefficients, T-statistics and Significance

Variables in the equation	Standardised beta (β)	t-statistic	t-significance
Question16	0.039	0.415	0.679
Question17	0.287	3.205	0.002*
Question18	-0.139	-1.568	0.118
Question19	0.206	2.634	0.009*

* Indicates significance at the 0.05 level (two-tailed test)

Results show that Question 17 pertaining to respondents' choice to pursue a career in accounting is the strongest predictor of students' performance in terms of aptitude, Question 19 is slightly less stronger while Question 16 least predicts performance in terms of aptitude.

CONCLUSION

The main objective of this study is to determine the factors that contribute towards students' performance. The results of the study generally, are consistent with those of Wooten (1998), Pajares (1996), Eskew and Faley (1988), Doran et. al. (1991), Gist et. al. (1996), Daroca and Nourayi (1994) and Bartlett et al.(1993) which provide additional insight into the factors that contribute towards students' performance.

The significance of the predictor variable, aptitude, was found to exist with students' Cummulative Grade Point Average (CGPA). Other variables tested; motivation, effort, the learning environment, exposure, and other factors such as family support and extracurricular activities do not appear to be significantly associated with students' performance. All other variables tend to be influenced by aptitude. Hence, aptitude tends to be the key variable in this study.

The findings of the study demonstrate that aptitude has a direct influence on students' performance. Students who exhibit higher aptitude perform better as exhibited in their CGPAs. Due to aptitude being a good predictor of performance, it is logical to predict that high aptitude has caused high achievement of students (Wooten, 1998). Wooten further theorizes that students with higher aptitude have likely developed high self-efficacy, which ultimately causes them to be successful in multiple academic pursuits.

Eskew and Faley (1988) found that aptitude leads to higher levels of performance; aptitude is said to be significantly related to examination performance in accounting courses.

One explanation for aptitude being the strongest predictor of students' performance could be that those students who possess positive aptitudes toward a career in accounting have the correct attitude for a career in the accounting profession. These students have strong interest to pursue a career in accounting and therefore, are more serious in their studies. They exert greater effort in learning assigned materials and instill in themselves to study for the knowledge and not for examination purposes.
Limitations

The findings presented in the study are subjected to several limitations. Among the limitations are:

(i) The survey is designed to examine the performance of Bachelor in Accountancy students in public universities and the results may not be applicable to other private universities offering accounting programmes or students from different course majors.
(ii) The current study is biased on the choice of Cummulative Grade Point Average (CGPA) as the performance indicator.
(iii) Measures of CGPA are self-reported, it is possible that some students may have reported distorted measures due to social desirability or similar factors.

Recommendations

It is recommended that each student disclose their name on the respective questionnaire completed to enable validation of CGPA scores. In doing so, non-response from respondents is also prevented.

Students themselves need to take the effort to instill the appropriate aptitude if they decide to pursue a career in accounting. Students should be highly motivated. They must have a strong desire to excel in their studies and have the correct attitude for a career in the accounting profession while at the same time exerting a high level of effort to achieve success.

Knowledgeable instructors who are supportive and approachable contribute towards students' success. A conducive learning environment is very crucial and adequate learning facilities and study materials are a necessity.

Seminars, workshops and talks should be carried out to inculcate students' positive aptitude towards a career in accounting. These educational events should be able to develop students' interest in the accounting profession, to explain to them the various job opportunities available in the accounting line and to answer all their queries.

Students themselves must be confident in achieving success, which is in line with aptitude, since, a person with high aptitude is a person who is able and confident in pursuing his goal. Though, the student must never forget throughout his journey in search of knowledge, he must never stray from his faith in God.

Future Research

The same type of research can be carried out in future at private universities in Malaysia and in order that the results are generalised, the population of study could be extended to other students majoring in other courses or programmes. Future research could look indepth into details of whether high aptitude students study differently from low-aptitude students or whether the level of motivation between these two groups differ.

It would be interesting if future research could examine whether parental pressure or financial pressure influence students' aptitude and it may also be desirable to assess whether working experience and exposure in terms of reading of financial and business related publications affect students' aptitude.

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