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UNDERSTANDING ACADEMIC PERFORMANCE BASED ON DEMOGRAPHIC FACTORS, MOTIVATION FACTORS AND LEARNING STYLES

Azrinawati Mohd Remali

UniversitiTenagaNasional, Bandar Muadzam Shah, Pahang, Malaysia

Mohamad Afiq Ghazali

UniversitiTenagaNasional, Bandar Muadzam Shah, Pahang, Malaysia

Mohammad Khairi Kamaruddin

UniversitiTenagaNasional, Bandar Muadzam Shah, Pahang, Malaysia

Tan Yong Kee

UniversitiTenagaNasional, Bandar Muadzam Shah, Pahang, Malaysia

ABSTRACT

The study aims to identify main factors that influence academic performance of firstyearaccounting students at UniversitiTenagaNasional. Demographic factors, motivation factors and learning styles were investigated as factors contributing to the differences in students' academic performance. 170 students returned completed questionnaire. Spearman Correlation Analysis method was used to show the relationship between the three factors with the students' academic performances. Results showed that there is a significant relationship between motivation factors such as intrinsic motivation, extrinsic motivation as well as self-efficacy towards the students' academic performance is directly influenced by learning styles. However, the results also indicated that there is no significant related between gender and students' prior academic knowledge/background. This study contribute to the knowledge storage of accounting education where the research provide adequate evidence to the lecturers and students itself in adapting responsibly on factors relations discussed in this study.

Key Words: Demographic factors, Motivation factors, Learning styles, Students' academic performance.

1. INTRODUCTION

University is an institution that is expected to produce high quality graduates that will become the workforce of the country in distant future. Higher education system now and then still in need of thorough research of factors affecting the academic performance in making sure the institutions can produce the best human capital (Garkaz et al., 2011). Demographic factors can be the main

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concern affecting the academic performance in students where gender, marital status, prior background or gender being one of the contributor for student performance (Norsida et al., 2010). According to Schmutte (1998), most companies list down successful candidates for accounting job that have strong basic knowledge in accounting and auditing and also proficient in information technology. Schmutte (1998) also states that students also need to have adequate knowledge in organizational and businesses so that they can cope with profession as an accountant.

Student majoring in accounting program in Australian Universities have decreased in the number of enrolment exerting negative views toward accountant as profession. One of the factors can be from extrinsic and intrinsic motivation in dealing with accounting subject at tertiary level so that future professional accountant can be produced with the best high achievements (McDowall and Jackling, 2010). Walker et al., (2006) have outlined three types of motivational behavior which are intrinsic, extrinsic and self-efficacy which closely related to student approach in achieving their objectives. Based on their research, the motivational process will influence people's actions and their emotion in performing such action especially in academic results. There is a need to understand factors associated towards academic achievement where they can be the defining measurement for student to perform well in examination especially in accounting courses (Byrne and Flood, 2008). Improvement in student achievement has been the main concerns in education system where to date many researchers have completed extensive study for factor determinant related to student performance in their education background (Norsida, Mohd et al., 2010).

Thus, the idea of this study is to investigate the main factors that possibly contribute to the academic performance which are demographic factors, motivations and learning style among UNITEN's first year accounting students. The specific objectives of this study are: (1) To investigate the effects of demographic factors such as gender, prior academic knowledge/background towards academic performance among UNITEN's first year accounting students; (2)To determine the relationship between roles of motivation such as intrinsic motivation, extrinsic motivation and self-efficacy with the academic performance among UNITEN's first year accounting students; and (3)To investigate the relevance of learning styles towards the good academic performance of UNITEN's first year accounting students.

2. LITERATURE REVIEW

2.1. Academic Performance

Student success often closely related to the faculty in University being successful in retaining the best educators, programs and enrolments of the best talent (Waggoner and Goldman, 2005). Malaysian always emphasized on academic success for student where they will be looked highly compare to others. Examination scores is the measurement in differentiating student's level of knowledge for them to go further in their studies, gaining scholarship and obtain better entry level at top universities (Habibah et al., 2011). Student depends on university ability to provide them with the best available programs as pathway to their future success so that they will develop best skill and knowledge during their working life (Waggoner and Goldman, 2005). It was the student attitude towards their study being the one criterion that makes the difference in their academic

performance at university level where there has been positive relationship between the variables (Kamariah et al., 2010). Andon et al., (2010) stated that companies and professional accounting bodies are seeking to acquire and retain the most flexible graduates with wide range of skills and knowledge. They also stated that the new era breeds extensive demand for this type of graduates and these corporate organization have started to go to extra length for the sake of finding the best talent with distinctive values (Andon et al., 2010). Hence, there is a need to justify the relations between the variables and academic success outcome for university student for example the attitude from student taking mathematic subject and how they perform where positive attitude toward the subject can be the defining factor for success (Kamariah et al., 2010).

2.2. Demographic Factors

Study from Ballard and Johnson (2005) examined the differences between relationship of males and females ability to cope with accounting subjects. The outcome from the study has concluded that women were likely to perform less than men and the gender variable have shown significant relationship to the academic performance (Ballard and Johnson, 2005). Based on the other studies from Norsida et al. (2010), it examined the academic performance of the mathematics students according to their gender. The result showed that women achieve better academic performance compared to the men in their CGPA where 0.5 percent of first class degree receivers were 88% female and another 12% men. The same pattern goes for second class degree (Norsida et al., 2010).

On the other hand, referring to Koh and Koh (1999) study, they found that women performed well than men and have significant relationship with the academic performance. This result is supported by Garkaz et al. (2011) study, also found that there was a significant difference between women and men regarding to their academic performance. Besides that, they claimed that women showed better achievement in academic performance compared to men. However, McDowall and Jackling (2010) found contradicting features citing that there is no significant relationship between genders toward accounting academic performance.

Based on Norsida et al. (2010), it showed that secondary education such as Malaysian Higher School Certificate (SijilTinggiPelajaran Malaysia) or STPM, pre-university or matriculation will affect their academic preferences in terms of which courses will they be taking in their tertiary education. In another study conducted by Garkaz, et al., (2011), it showed that having mathematics background for the student will affect their academic performance in accounting subjects. They found that students with mathematic background will achieve better performance than those who are non-mathematic background. By the same areas of study, Koh and Koh (1999) also found that mathematics background will allow student to perform better in an accountancy degree programme being one of highly demanding and stressful course for their undertaking. There is a positive relationship between prior academic achievement and background toward the student's academic performance. In general, prior study from Koning, et al., (2012) seems likely to advocate more towards relationship between prior academic background and performance in bachelor program. However, Duff et al. (2004) claimed that prior academic achievement does not have significant relationship with academic performance.

2.3. The Role of Motivation

Student motivation to choose which courses that best suits them can bring great effect on their performance in the first year (Byrne and Flood, 2008). Motivation theory is student main priority focus in the long term future prospect where they will put more effort forcing them to complete the task given to them persistently (Habibah et al., 2011). They stated that achievement need of a person became the main drive to succeed in academic level. Hence, motivation plays an important role in students' interest in study and pushes them to learn and achieve their target progressively. Motivating factor can be divided into intrinsic and extrinsic theory where intrinsic motivation is more towards accomplishment out of obligation and with the satisfaction of showcasing competency and surpassing the expectation set by them (Clark and Schroth, 2010).

2.3.1. Intrinsic Motivation

Intrinsic motivation refers to the behaviors that are done out of pleasure or for the sake of enjoyment (Clark and Schroth, 2010). In the studies done by Moneta and Spada (2009), high intrinsic motivation has resulted in direct positive relationship towards student preparedness before exam and coping with the stress as well. Besides that, when intrinsic goal being prioritized by students, they were more likely to put a lot of effort and show persistence when acquiring detail information about the given task which eventually leads to better academic performance. Student with extrinsic goals in other hand does not generate similar results with those with intrinsic motivation (Lee et al., 2010). Further evidence that intrinsic motivation being positively correlated with academic performance is from Walker et al., (2006) where intrinsic motivation, self-efficacy and cognitive processing gives positive relations towards the achievement of academic success in terms of Grade Point Average of students.

2.3.2. Extrinsic Motivation

Clark and Schroth, (2010) stated that extrinsic motivation, when behaviors that are done to achieve a goal or reward beyond the activity itself. Studies from Mills and Blankstein (2000) focused more on sample students from Toronto University have resulted on academic performance relations with the extrinsic motivation which then totally contradict with other previous mentioned studies portraying intrinsic as the best motivation to produce good exam results. Mills and Blankstein (2000) have also discovered that student personality of being self-oriented and being high standard setters have resulted in higher scores in examination. Eventually the assessing factor portrays extrinsic motivation as their benchmark in their academic goal has then proven to be positively correlated with the students resort to be competitive and also gain recognition by the public from their success (Mills and Blankstein, 2000).

2.3.3. Self-Efficacy

Self-efficacy also being a significant predictor towards academic performance where student have high belief in own capability that they will do well and produce good result in exam (Habibah et al., 2011 and Walker et al., 2006). A study from Kamariah et al. (2010) has shown that student academic achievement is generally related significantly with the attitude when they study contributing. The student with high self-efficacy shows contradicting result where it is negatively related to academic performance when student being overconfidence with their effort during study (Feyter et al., 2012).

2.4. Learning Styles

Learning style or skills used in study defined as how student deal with their study approaches through perception towards their surrounding and how they can adapt to the task given into producing good end result (Richardson, 2011). Student mostly applies suitable strategies to acquire new material knowledge which help them further understand the topic and these strategies proved to be effective during their learning (Chen, 2009). Chen (2009) studies showed that there was significant relationship between grade level and language learning strategies. Learning styles proves to be significant when samples taken from 86 males and 93 females shows that most study techniques generate improvements in their Grade Point Average. Some of the technique used by the sample students was time management and procrastination factor which contributes Mean of 18.38. Concentration and memory along with note taking covers a mean of 20 while organizing and processing info scores mean of 19 which is quite high in the results (Hassanbeigi et al., 2011). Studies from Paisey and Paisey (2010) have resulted in 70 percent of respondent from University under the name A agreed on the importance of student ability to extract and analyze information from different kind of sources. Besides that, time management also becoming part of the type of learning where 66 percent respondent from University A believed strongly about the traits that should be posed by students while in University B, 34 percent also feel the same way (Paisey and Paisey, 2010).

Studies from Fuente and Cardelle-Elawar (2009) have cemented the perception on how the students approach can affects their examination results outcome. The study further evidenced that that there is a significant correlations between how student put their learning strategy whether they are prone to be hardworking or used to the study smart approach. Fuente and Cardelle-Elawar (2009) have also made conclusive findings that student study planning and strategy have been the best option for top scorers' student to study because of their effectiveness. In the other hand, studies from Indreica et al., (2011) showed that time wasting have been the most defining difference that makes student struggle before the final exam. From the study, approximately 73 percent student started to struggle in last minute for final exam and this has caused information overload and student failed to be organized in their study which leads them to perform badly than previous examination performance (Indreica, et. al, 2011). Hence, good learning skills are very much a main concern in order to avoid student performance to decrease even more.

3. METHOD

There are three main variables that will affect the student's performance in their first year accounting studies. In this study, measurement of the demographics background is confined into two elements only, which are prior academic performance (or prior academic background) and gender. Meanwhile, motivation variables consist of intrinsic, extrinsic and self-efficacy while the third variable is learning style. These three main variables are the independent variables. Meanwhile, the dependent variable that will be examined is academic performance using CGPA which will be the main reference to measure the level of their academic performance. CGPA is instrumental for graduation and can be considered a meaningful measure of student's performance, students are generally aware of their CGPA since they receive regular feedback throughout their academic lives, most of the literature is based on measurement of CGPA for student's academic performance.

3.1. HYPOTHESES

3.1.1. Demographic Background

Differences in sex indicate differences in IQ level (Lynn, 1996). He proposed that male have higher IQ level than female. However the impact of gender turn to be mixed result as (Lipe, 1989; Williams, 1991) support performance by male, whereas (Mutchler, Turner, and Williams, 1987; Tyson, 1989 as sited in Byrne and Flood (2008) found that female performs better. There is also studies conducted showing that gender has no systematic effect on performance (Buckless, Lipe, and Ravenscroft, 1991; Carpenter, Friar, and Lipe, 1993; Gist, Goedde, and Ward, 1996 as cited in Koh and Koh (1999). Besides that, this study also investigates the relationship between prior knowledge of accounting with academic performance of first year accounting students. There is a significant relationship between prior knowledge of accounting and first year accounting students' academic performance proven in the study by Eskew and Faley, (1988). In the other research such as a study by Gul and Fong(1993) also found the same outcome. Thus, hypothesis 1 and 2 are constructed as:

- H₁: There is significant difference in academic performance between genders among UNITEN's first year accounting students.
- H₂: There is significant difference between student's prior academic knowledge (background) with academic performance among UNITEN's first year accounting students.

3.1.2. Motivation

A positive relation between intrinsic motivation and students' academic performance was shown in research done by Walker et al (2006). Ryan and Deci (2000) emphasized that the achievement of academic performance cannot just depends on the intrinsic motivation, however, extrinsic motivation also need to be investigated. Besides that, the study found that there is positive relationship between academic entitlement and self-efficacy with the students' academic performance. This is also certified by Feyter et al. (2012). Based on the literature review, the hypotheses are developed as follow:

- H₃: There is a significant relationship between intrinsic motivations with academic performance among UNITEN's first year accounting students.
- H₄: There is a significant relationship between extrinsic motivations with academic performance among UNITEN's first year accounting students.
- H₅: There is a significant relationship between self-efficacy with academic performance among UNITEN's first year accounting students.

3.1.3. Learning Styles

In addition, this study further examines the relationship between learning styles and students' first year academic performance whereas prior study made by Hassanbeigi et al. (2011) found that style of learning help the students to perform better in their academic performance. Learning styles can consist of time managements, concentrations and memory, study aids and note taking (Hassanbeigi et al., 2011), group work (Chou, 2011). Based on this, the hypothesis construct as follow:

H₆: There is a significant relationship between learning styles with academic performance among UNITEN's first year accounting students.

3.2. Data Collection Method

The population of this study consists of the students in UNITEN, Kampus Sultan Haji Ahmad Shah who taking degree in accounting. The sample was chosen from the first year accounting students (semester 2 or 3). 170 students returned completed questionnaire. The questionnaire is adopted and adapted from Hassanbeigi et al. (2011); Byrne and Flood (2008). The questionnaire is consists of three part. The first part of the questionnaire is consists of respondent's demographic background such as gender, race, first year CGPA, prior academic background and age. The second part of the questionnaire highlighted where the main focus was towards learning style of respondent leading to their academic performance. The third part consists of the question of motivation factors toward academic performance such as intrinsic motivation, extrinsic motivation and self-efficacy. The respondent will answer the question of second and third part based on 5– point Likert scale, where 1 means "Strongly Agree", 2 means "Agree", 3 means "Neutral", 4 "Disagree" and 5 "Strongly Disagree".

4. RESULT

4.1. Reliability Test and Normality Test

Cronbach's alpha is used to examine the consistency and stability of the result has been answer by respondent in the questionnaire. The results showed that the questionnaire was reliable with a score of 0.916. It indicates that the motivation factors, learning style and academic performance items are in acceptable level.

Testing normality of the data is prerequisite for inferential statistical technique. Results from Kolmogorov-Sminorv (K-S) test revealed that the significance levels for all variables were less than 0.05 which indicated non-normality - a significance level of less than 0.05 indicates non-

normality (Coakes et al., 2010). Hence, the non parametric statistical analysis was more appropriate to be used.

4.2. Descriptive Analysis

As the study only focuses only in early semesters in university, therefore the entire questionnaire distributed to first-year student only. Table 1 depicted the descriptive findings. There are 30 percent male and 70 percent female answered the questionnaire. Around 4.7 percent in age of 18 to 19 years old respondent have answered the questionnaire, 89.4 percent in age of 20 to 21 years old, 4.7 percent on age of 22 to 23 years old, and the remaining 1.2 percent is answered by respondent in the age of 24 and above. The student's current CGPA indicated that 27.6 percent of them in the range of 3.50 to 4.00, 48.0 percent were in 3.00 to 3.49, 18.8 percent in the range of 2.50 to 2.99 and the remaining 5.3 percent were in the range of 2.49 and below. In term of hometown or place of origin of the students, most of them came from urban areas which the percentage is 57.1 percent overall. The remaining 35.9 percent and 7.1 percent came from rural areas and others. 72.4 percent of them were in science and business path.

		Frequency	Percent
Gender	Male	51	30
	Female	119	70
Age	18-19	8	4.7
	20-21	152	89.4
	22-23	8	4.7
	24 & above	2	1.2
Current CGPA	3.50-4.00	47	27.6
	3.00-3.49	82	48.2
	2.50-2.99	32	18.8
	< 2.49	9	5.3
Background/Hometown	Rural	61	35.9
	Urban	97	57.1
	Others	12	7.1
Prior Academic Background	Science	44	25.9
	Accounting	123	72.4
	Business	3	1.8

Table-1. Descriptive analysis of the respondents

4.3. Significant Difference between Gender and Academic Performance (H₁)

The Mann-Whitney U test is the alternative test to the t-test. It is a non-parametric test that is used to compare two samples comes from population having the same distribution (Coakes et al., 2010). The result showed there was no significant difference between the gender and academic performance (Z value = -0.997, p > 0.05). This result was supported by previous research done by Turner et al. (1997) which discovered that the gender did not display any significant affect toward accounting subject. However, this result was inconsistent with the previous studies done by Koh and Koh (1999) and Ballard and Johnson (2005).

4.4. Significant Difference between Prior Academic Knowledge (background) and Academic Performance (H₂)

The Kruskal Wallis test is equivalent to the one-way between-groups analysis of variance (ANOVA) which allows possible differences between two or more groups to be examined (Coakes et al., 2010). The result indicated that there was no significant relationship between prior academic backgrounds with academic performance (X2 (N=170) =5.326, p > 0.05). Therefore, this paper concluded that there is no significant relationship between prior academic achievement and academic performance. The result was contradict with the result posted from Bernardi and Bean (1999); Koh and Koh (1999) and Koning et al.(2012) which showed there is a positive relationship between prior academic background relationship and academic performance. However, this result was supported by previous research done by Duff et al. (2004) where they claimed that prior academic backgrounds are not significant with academic performance.

4.5. Relationship between Motivation Factors (H_3-H_5) and Learning Style (H_6) with Academic Performance

Table-2. Spearman's filo (Correlations)				
Current CGPA	Correlation Coefficient	Sig. (2-tailed)		
Intrinsic Motivation (H ₃)	0.247**	0.001		
Extrinsic Motivation (H ₄)	0.174*	0.023		
Self Efficacy (H ₅)	0.226**	0.003		
Learning style (H_6)	0.285**	0.000		

Table-2. Spearman's rho (Correlations)

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

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

To answer the second and third research question, the Spearman Rho analysis was used. Table 2 showed the output for a correlation on that motivations factors (intrinsic, extrinsic and self-efficacy) and learning style and CGPA for UNITEN's first year accounting students.

There was a significant relationship between intrinsic motivation and the CGPA (r = 0.247, p < 0.05). Those students with a higher CGPA scores are associated with higher intrinsic motivation. This result was supported by Lee et al. (2010) which shown student more inclined towards intrinsic motivation in producing academic excellence. It also consistent with the results found from other research done by Walker et al. (2006), Moneta and Spada (2009) and Clark and Schroth (2010) where they stated that students are intrinsically motivated to gain knowledge and to achieve things toward academic performance.

The result also revealed that extrinsic motivation has a significant relationship against the academic performance (r = 0.174, p < 0.05). This result showed that student have positive perception regarding how they want their student life in UNITEN to become from a future aspect like for example better job prospect. Besides that, the students tend to become motivated from family influence and peer pressure which was in a good way for them to succeed in their academic repertoire. This result was very much consistent with the studies made by Mills and

Blankstein(2000) where the extrinsic motivation is more favorable for students to succeed well in their examination.

Table 2 also showed that self-efficacy motivation has effect on academic performance (r = 0.226, p < 0.05). The result have shown significance trend of students confidence in upholding their obligation to divert any pressure or difficult task given to them during their stint as a University student. Consequently, student with high confidence level can do succeed in the examination period which in this case has similar achievement from previous studies done by Habibah et al. (2011) where they have found that self-efficacy plays a big part producing academic excellences. Besides that this result have also solidify the findings found in Feyter et al. (2012).

The last research question was to answer the hypothesis whether learning styles can affect the outcome of a student academic performance and how it can benefit student in their studies. **Table 2** showed that there is a significant relationship between how student put their learning approach with the academic success (r = 0.285, p < 0.05). Consequently, this result comprehend with the study done by Hassanbeigi et al. (2011) where they have discover that a good study technique can result in higher Grade Point Average (GPA) where there is a significance relation between those two variables. Besides that similar outcome also have been reviewed under study done by Fuente and Cardelle-Elawar (2009) where student with study smart approach will utilize plan and strategy to study as best alternative for the student to succeed in their examination.

5. CONCLUSION

Based on the result of the study, there is significant relationship between the intrinsic motivation and students' academic performance. Most students are tend to be prepared before exam and coping with the stress well. Therefore, they produced good result in term of CGPA at the end of the semester. In addition, extrinsic motivation shows positive outcome where students are eager to get reward or achievement out of their great CGPA results. For instance, they expect to secure good job opportunities after they graduated. Besides that, self-efficacy also has significant relationship with academic performance. High confidence levels of the students assist them to perform better in their academic performance. Lastly, learning styles proven to exert significant relationship with students' academic performance. This indicates that study techniques play an important part in learning process to ensure better results. However, the gender and prior academic knowledge shown that there was not significant relationship toward the UNITEN first year accounting students' performance where there did not affected the student's CGPA.

The present study has a significance limitation coming from a small sample size which in the region less than 200 respondents. This is due to the fact that the target sample only from the students of UNITEN, Muadzam Shah Campus which are relevant for the research being conducted. This is because the targeted audience comprised of accounting student specifically recommended for the research as the main target was to find out how accounting student perform in their academic examinations in accounting related subjects and the one academic institution based can be difficult for the team to get full overview of the issue being discussed. Next, the results of the study shown inconsistent pattern for the variables validity used against the academic performance

(Diseth, 2011) and this was true when the current study have discovered that demographic factors shown insignificance results against the academic performances. It has also found that student approach to studying varies according to seasonal factor. In this case to make it clear their motivations are based on exams date like in early semester or mid-semester (Nandagopal and Ericsson, 2012). Hence, the research team has to deal with contradicting measurement where student performance in examination may not have a direct effect towards the timing of their motivations which can be vary. In conclusion, the timing of student matters the most for the research to be accurate.

Byrne and Flood (2008) have recommended that student support service need to be given to struggling students especially in academic context with peer mentoring, providing personal tutor class and many extensive classes. This will then provide the students with ability to gain necessary knowledge and skills to be at par with other above average performing students (Gibberd, 2007). Another recommendation is that more infrastructures need to be provided to the students so that the student can have greater access of their academic endeavor. This is the responsibility of the university itself to provide the best facilities like learning on digital based concept where in this case proven to aroused student and gain their attention for example having desktop in each class where this devices can help students to expand their ideas and knowledge having unlimited internet access (Gibberd, 2007). Internets are proven to be a necessity nowadays and these students are believed to share same perceptions. Having a classroom with this sort of digital concept can be a turning point for the ways student develop their skills but further monitoring need to be addressed by universities management so that no abusive conduct by student like surfing unnecessary sites like Face book. Hence student should be allowed to have accessed to portal which are necessary to their learning and coursework only for them to make full use of the facilities provided by the university.

Besides that during the new intake of students, career guidance counsellors' need to take stance being provided by that specific university to where this type of services can be provided. This method is to make sure that student can know the path that they want to choose in the career options and overcome their emotional breakdown during their studies (Sarma, 2011). Student will have a clear direction of what they want to do in the future and this will give clear motivation for the students to push forward in their academic performance and provide positive results. Besides that, university having benchmark of the top university in the world ranking like Harvard and Oxford will give clear indication of what other university will do adopting the best practices and upgrading the education system to be at par or even reasonably similar to that particular institutions which provide the best human capital.

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