Factors Affecting Academic Performance of Business Students at the University of Fiji: A Survey

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Abstract

This research examined the relationship between the academic performance of business students with student income, communication skills and intelligent quotient (IQ). The research is based on students from the School of Business and Economics at the University of Fiji. The data for the study were collected through the administration of a formal questionnaire. A total of 50 completed questionnaires were analysed in the study. The data was then gathered and run through the SPSS software. A multiple linear regression analysis was undertaken to find the relationship of Academic Performance (dependent variable) with the three independent variables, student income, communication skills and IQ score. The results of the study reveal that academic performance and student income have a moderate positive relationship and are statistically significant. Academic performance and communication skills have a modest negative relationship. Academic performance and IQ score have a modest positive relationship. Both communication skills and IQ score were not statistically significant.

Introduction

Education plays an important role in acquiring the skills necessary for success in life. Learning and attaining knowledge is crucial for the betterment of one's status in society. Academic education focuses primarily on learning progression. The learning process enhances students' academic performance.

Commonly, grades are considered as a measure for students' knowledge or intelligence level (Wood & Locke, 1987). This measure of students' intelligence is appropriate for professions like law, medicine or finance. Moreover, students' placing effort can also be a sign of academic performance. For instance, some students demonstrate their competency by holding officer positions in the student association body. Indeed, during interviews, employers look favourably on consistent leadership activities on graduates with the underlining assumption that these graduates will bring the same enthusiasm and commitment to their organization.

Furthermore, extracurricular accomplishments add flavour to a student's academic performance. The ability to master a diverse set of skills illustrates intelligence, curiosity and persistence which employers also consider in the recruitment process (Baker, 2008). For example, students having skills in athletics or music apart from their academic performance. It is well observed that some students with average grades are awarded scholarships on the basis of displaying a pattern of achievement by consistently learning new skills.

However, academic performance and the learning process are dependent on many variables surrounding the students. This could range from communication skills, intelligent quotient level, learning resources and socio-economic status of the students. Communication skills and IQ levels are developed over a period of time which plays a significant role in the students' academic performance. One of the effective learning resources that significantly boost students' academic performance is the level of interaction with the facilitators and this is where communication plays a notable role (Palos & Petrovici, 2014). On the other hand, poor communication skills affect students' performance in completing the given task (Cho et al., 2007). To add further, the socio-economic status of students has a positive relationship with their academic performance.

Thus, the objective of this study is to examine the relationship of the University of Fiji Business and Economics students' academic performance with their student income, communication skills, and IQ score. The study will also provide some recommendations on how student academic performance can be further enhanced based on the factors analyzed. Student income refers to income derived during their tenure of study. For example, pocket expense, book allowance and scholarship money to name a few.

Literature Review

A university is an environment where a systematically coordinated, scientifically conformed education service is provided (Akessa & Dhufera, 2015). Academic performance at tertiary level is influenced by many factors. Existing literature focuses on variables such as communication skills, positive and negative effects of intelligence, study habits, teaching skill of academics, the personal interest of students, learning resources and socio-economic status of a family or the student.

Communication skills of students

Communication has always been one of the relevant variables influencing the teaching-learning process (Palos & Petrovici, 2014). Therefore, the extent to which students are developed in communicating with each other and the teachers play a vital role as go**od communication skill helps students' to better understand the concepts and** write answers as expected. These skills are not acquired in a short span of time but are enhanced from their schools days (McCroskey, Booth-Butterfield and Payne, 1989). It is noted that students who are better able to communicate, engage themselves more in the class, that is, they raise queries when in doubt of a particular concept or idea perform better academically. There is also a positive relationship between better communication skill and assessment scores. Students who have good communication skills perform well in projects and assignments designated to them. Students take more initiative in completing their tasks as they are able to communicate comfortably compared to those with poor communication skills (Cho et al., 2007). Moreover, a student with better communication skills is found to be more sociable and has a positive attitude towards their studies and is more satisfied with their experience at schools and universities in comparison to those students with poor communication skills (McCroskey and Richmond, 1990). However, the research conducted at the University of Fiji does not show a positive correlation with the above literature. This may be due to studies conducted in different regions with different learning environment and facilities.

Positive and Negative Effects of Intelligence

A study by Garg and Sharma (2016) assessed the positive and negative effects of intelligence on academic performance of 108 undergraduate students of which 55 were males. The positive effect of intelligence on academic performance was measured **by Ravens' S**tandard Progressive Matrices while Negative Effect Schedule measured the negative impacts. The variable used to measure academic performance was the Cumulative Grade Point Average. The result indicated that there was a positive relationship between intelligence and academic performance for both males and females. Moreover, there is positive correlation between positive affect and intelligence. If one of the variables is high then the other indicator will also be high. The study also revealed that the positive effect had significant impact on the academic performance of the study sample.

Students Study Habits and Teacher Competency

Moreover, apart from the above-mentioned factors, other variables such as study habits, teaching skills of academics, the personal interest of students and their **personality traits can also influence students' academic performance. According to,** Mlambo (2011) (as cited in Arora & Singh, 2017) the teaching pedagogies adopted during lectures has a significant impact on the performance of the student as the lecturer may use innovative techniques to motivate the student to understand difficult concepts and maintain interest of the student throughout the duration of the course. A study was conducted on 117 university students in Gurugram, India and a factor analysis technique was employed to see the impact of these factors on grades of the students. They also utilized a Multiple Regression Analysis (MRA) with a dummy variable for introducing categorical variable 'gender' using the SPSS software. It was found that teaching capacity of academics, study habits and the family environment, that is, constant motivation from parents had significant influence on the academic performance of these students. The results also indicate that females are able to achieve higher grades (Arora & Singh, 2017). Furthermore, another study was undertaken at a university in Ethiopia to detect the factors that had influenced academic performance. A total of 294 students were selected using the simple random sampling technique. The

cross-sectional study design was used to analyse the data. It was ascertained that lecturers had a major impact on the academic performance of students.

Learning Resources at Universities and Socioeconomic Status of Students

University facilities, resources and family's socioeconomic status play a vital role in determining the grades of students. It was understood that if the learning resources are readily available and upgraded then students will attain positive academic results. Good knowledge of the subject area and the ability to deliver lectures in a manner that captures students' interest has a significant influence on the performance (Akessa & Dhufera, 2015). Eamon (2005) studied a sample of 388 Latino students to predict academic performance influenced by socio-demographic attributes and parenting habits. It was revealed that the ability to read and solve mathematical problems was poor in students of Mexican American descent who had problem with the English language. In addition to this, students whose mothers bore children at older ages did not have problem with English language and the students' performance was much better. It was also noted that good parenting efforts improved the ability of students to excel in academia. Various studies (Battle & Lewis 2002 as cited in Ghaemi & Yazdanpanah, 2014; Bornstein & Bradley, 2003; Coleman, 1988; White, 1982; Sutton & Soderstrom, 1999) have shown that students who come from low socioeconomic status may not be able to perform better academically as they lack educational resources and may be emotionally and financially disturbed which eventually hinders their academic performance. This is very much true since the research highlights that boosting students with student income lead to better academic performance of the student since they will have the opportunity to obtain educational resources.

Reynolds and Walberg (1992) also identified that a family's socio-economic status can be a major factor in determining the type of school a student will be able to enrol in due to accessibility issues which may eventually affect the performance of the student. In addition to this, other influences such as demographic factors, full-time or part-time student and extra-curricular activities were also studied. The authors had administered questionnaires to 144 students and obtained the result that these factors had major influences on the academic performance of students (Farooq et al., 2011). Thus, it could be assumed from the current literature that examining the effects of various factors on academic performance does not include the factor of student income. Therefore, this factor has been incorporated in our study to analyse the effects of these factors on academic performance of the University of Fiji (Uni Fiji) Business Students. Based on the literature review the following null hypotheses were developed for testing.

H_{01}: There will be no relationship between students' academic performance and their income.

H_{02}: There will be no relationship between students' academic performance and their communication skills.

H_{03}: There will be no relationship between students' academic performance and their IQ score.

(Note: All the null-hypotheses will be tested at 95% confidence level – 5% (0.05) level of significance).

Conceptual Framework

Based on the literature review and survey data which were administered through the use of questionnaires, the following conceptual framework has been formulated to

show the relationship between Academic Performance with Student Income, Communication Skills and IQ Score of the University of Fiji Business and Economics Students. Academic performance is a dependent variable while the other factors affecting academic performance are independent variables.

Figure 1:
Conceptual Framework
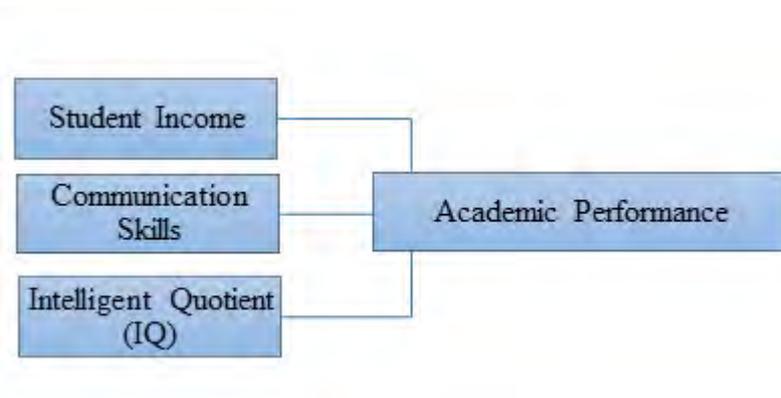
Method

The undergraduate Business students at the University of Fiji were surveyed during 2018. The University of Fiji is located in Saweni, Western Division of Viti Levu which is the largest island in Fiji. Many students pursuing undergraduate studies at this university are from a poor socio-economic background and they reside in faraway villages. The major catchment area for this university is Nadi Town, Lautoka City and Ba Town. Surveys were randomly administered in person. Questions on the survey were related to demographics and the relationship between academic performance (dependent variable) with the three independent variables, student income, communication skills and IQ score. The School of Business and Economics has approximately 200 undergraduate students. A total of 50 completed surveys were received and analysed in the study apart from the 100 questionnaires that were given to the business students. The response rate was 50% which was deemed adequate for the analysis.

The demographic categories considered are gender, programme major and levels in the programme. Fifty-five per cent of respondents were female and forty-five per cent were male. Forty per cent of the students were first-year students whereas year two and three were thirty per cent each.

Fifteen questions were used to measure the relationship between the academic performance of students with student income, communication skills and IQ score. Likert –scale with 5 being the highest and 1 being the lowest was used for students' response. All the questions in the survey form were answered by the respondents.
The data was then gathered and run through the SPSS software. A multiple linear regression analysis was undertaken to find the relationship and strength of Academic Performance (Dependent Variable) with the three independent variables, student income, communication skills and IQ score. Ethics of research such as Confidentiality, Anonymity and Voluntary Participation was highly maintained.

Prior to discussing the findings, the reader should be mindful of two of the dataset's limitations. Firstly, University of Fiji is a small, private university. Any systematic difference between it's business student's population and the national business student's population mitigates the external validity of the results. Secondly,

though the survey was administered randomly, females are over-sampled. While these limitations merit attention, they do not negate the methodology nor validate the conclusions drawn from it.

Results and Discussion

The nature of **Uni Fiji Business and Economics students'** is given in Table 1. The mean value for each factor is moderately high. The mean values for the factors are as follows: Academic Performance= 68.45, Student Income = 39800, Communication Skills= 69.30 and IQ Score= 103.90

Table 1 reveals that the highest measures of centre (mean) are scored by student income FD per annum followed by IQ score, communication skills and academic performance. Hence construct student income FD per annum is superior to the other four constructs in terms of the highest mean. The least mean score (68.45) is noted for academic performance.

Table 1:
Descriptive Statistics of Subjects

Variable	Mean	Std. Deviation
Academic Performance	68.45	6.039
Student Income FD per annum	39800.00	3442.765
Communication Skills	69.30	8.868
IQ Score	103.90	2.553

The extent of the relationship between students' academic performance, student income, communication skills and IQ score were examined with the Pearson Coefficient Correlations as shown in Table 2 below.

Table 2:
Correlations between Academic Performance, Student Income, Communication Skills and IQ Score

Variable		Academic Performance	Student Income	Communication Skills	IQ Score
Academic Performance	Pearson Correlation	1	.523*	-.318*	.263*
	Sig. (2-tailed)		.018	.172	.263
Student Income FD per annum	Pearson Correlation		1	.040	-.026
	Sig. (2-tailed)			.867	.912
Communication Skills	Pearson Correlation			1	.036
	Sig. (2-tailed)				.879
IQ Score	Pearson Correlation				1
	Sig. (2-tailed)				

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

To examine the relationships among these variables Pearson Correlation coefficients were used. Table 2 shows the correlation coefficients of academic performance, student income, communication skills and IQ score. Accordingly, it shows that there is a statistically significant positive moderate correlation between academic performance and student income (r= 0.523, p < 0.05). Apart from this, all other constructs correlation were not statistically significant since their p-value was greater

than 0.05. Thus, the results show that there is moderate positive relationship between academic performance and student income and their correlation is statistically significant. There was also a modest negative relationship between academic performance and communication skills and it was not statistically significant (r= -0.318, p > 0.05). There was also a modest positive relationship between academic performance and IQ score, however it was not statistically significant (r= 0.263, p > 0.05).

As a result of the statistical significance all three null hypotheses are rejected. A positive relationship was found to exist between academic performance with student income and IQ score. However, there was an inverse relationship between academic performance and communication skills.

Reliability Analysis

To examine the reliability of the scale dimensions, Cronbach's Alpha was calculated, as it considered as the most widely accepted reliability measure. Table 3 provides the Cronbach's Alpha (α) for the four constructs. As all the values of Cronbach's Alpha for each variable are above 0.6, thus it can be concluded that the measures used were consistent and sufficiently reliable for the study.

Table 3:
Overall Reliability of Academic Performance, Student Income, Communication Skills and IQ Score

Cronbach's Alpha	Cronbach's Alpha Based Standardized Items	Number of Items
.847	.854	4

Table 3 shows the overall reliability statistics for academic performance, student income, communication skills and IQ score. The overall value of Cronbach's alpha is 0.847. Cronbach's coefficient alpha is the most common accepted formula for assessing the reliability of a measurement scale with multi-point items. Student Income, communication skills and IQ score were used to examine their relationship with academic performance. Cronbach's alpha values of the four variables in Table 4 are above 0.6. Hence, the reliability of the variables used to examine the construct is acceptable.

Table 4:
Reliability Statistics of Students Academic Performance, Student Income, Communications Skills and IQ Score

Variable	Cronbach's Alpha if Item Deleted
Academic Performance	.822
Student Income FD per annum	.812
Communication Skills	.816
IQ Score	.843

Table 5 shows the regression results, that is the model summary. Furthermore, it is imperative to investigate the relationship between academic performances in the face of many variables in a single model.

Table 5:
Regression Results, Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.688[a]	.473	.374	4.778	1.980

a) Predictors: (Constant), IQ score, Student Income FD- p.a., communication skills
b) Dependent Variable: Academic performance

The multiple linear regression model in Table 6 indicates that 37.4% (Adjusted R Square) of the total variation of the data was explained by the model. In this research, only three variables are tested: student income, communication skills and IQ score to determine academic performance. The value of R shows the strength of the relationship. The value of R (68.8%) shows that in overall there is a moderate positive relationship. R^2 shows that 47.3% of the change in the dependent variable is explained by the independent variables. 47.3% of the change in academic performance is explained by student income, communication skills and IQ score. Academic performance is the dependent variable and student income, communication skills and IQ score are independent variables. The Durbin-Watson Test (DW) in Table 4 shows that when it is close to 2.0, it is consistent with no serial correlation, while a number closer to 0 means there is, probably, serial correlation. In thisr study, DW has the value of 1.980 which is closer to 2.0. Thus, there is no serial correlation between the variables which have been used in this study.

Table 6:
Coefficients of Multiple Linear Regression Analysis

Model		Standardize Coefficients Beta	t-test	Significance
1	(Constant)		-.515	.614
	Student Income (X_1)	.545	3.000	.008
	Communication Skills (X_2)	-.350	-1.928	.072
	IQ Score (X_3)	.290	1.594	.130

a. Dependent Variable: Academic Performance

Table 6 shows the Coefficients of the Multiple Linear Regression Analysis. The standardized coefficients will be used for this study. As per the multiple regression results, academic performance is positively influenced by student income and IQ score. In contrast, academic performance has a modest negative relationship with communication skills and it is not significantly influenced by communication skills and IQ score since their p-value is more than 0.05. In relation to academic performance, student income has a moderate positive relationship and is statistically significant (r= 3.000, p < 0.05). P-Value is used as an alternative to t-test to find the significance of the variables.

Equation:

Y (Dependent Variable) = C (Constant) + βX$_1$ + βX$_2$ + βX$_3$ + u (error term)
Academic Performance = C (β$_0$) + 0.545*Student Income **–** 0.350*CommSkills + 0.290*IQ Score + u

The results of the equation as reported in Table 6 lead to the following observations and interpretations:
- Effectively a 1% increase in student income may increase academic performance by 54.5%.
- Effectively a 1% increase in communication skills may decrease academic performance by 35%.
- Effectively a 1% increase in IQ Score may increase academic performance by 29%.

Conclusion

The objective of the study was to measure and examine the relationship of the **University of Fiji Business and Economics Students' academic performance with their** student income, communication skills and IQ score.
In summary the results indicate that:
- Academic performance and student income had a moderate positive relationship.
- Academic performance and communication skills had a modest negative relationship.
- Academic performance and IQ Score had a modest positive relationship.

The negative relationship of communication skills with academic performance may be not be pertinent because the need for good English grammar does not necessarily influence **academic performance since most business students' deal with** numbers on a daily basis. Numerically based exams rather than exams focused on written or oral skills may therefore be more appropriate. However, it is important note that students will eventually need to communicate with clients and fellow workers when they graduate.

Future research into variables that affect Academic Performance could be extended to include more constructs to broaden the model and subsequently extend the examination of the relationship that better explain and predict the relationship.

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