Identification of the Effective Factors on the Success in Financial Management Course

Mohammad Reza Shoorvarzy and Abolfazl Kholousi

Islamic Azad University - Neyshabur Branch, Iran
Master's Degree of Business Administration in the Islamic Azad University, Neyshabur Branch, Iran

Abstract: The main objective of the present study is analyzing and identifying the effective factors on the success of the Accounting and Business Administration students in Financial Management Course. We have considered the most important factors such as gender; field of study in high school, point gained in nationwide entrance exam of university, average of scores in Principles of Accounting, average of scores gained by the students in Mathematics and Economics. Then, the data collected from 140 students admitted to undergraduate (bachelor’s degree) program prescribed by the Islamic Azad University- Mashhad Branch in the field of Accounting and Business Administration during the years 1999-2003 has been analyzed. Regression Method by SPSS was utilized for analyzing as well as Pearson Correlation Coefficient was used for testing the relationship between variables. Finally, the results obtained from the research indicated that there was a direct and significant relationship between the scores gained by the students in Economics, Mathematics, Principles of Accounting and their scores in Financial Management, on the contrary, students’ gender, field of study in high school and undergraduate program as well as their scientific rank in the nationwide entrance exam had no influence on their success in Financial Management Course.

Key words: Sexual differences · Students’ educational performance · Point gained in nationwide entrance exam of university · Financial Management course · The students’ academic fields

INTRODUCTION

The educational performance of the students is one of the main factors of their success in the future. Thus, focusing on the effective factors in students’ success is one of the vital factors in higher education system and this is the reason why many research papers have been published about these factors. One of the important factors that have been frequently referred is the essential differences among the students’ personal characteristics which are effective in their efficiency in learning.

Moreover, cumulative grade point of average (CGPA) was also included in large number of empirical studies as one of determinants of student course performance, such as Didia & Hansnet (1998) in which, they found a strong and positive relationship between CGPA and grade received in the fundamentals of financial management course. The same results were obtained, namely; strong relationship between cumulative GPA and student performance in Accounting by Doran, Bouillan and smith (1991), Eskew and Faley (1998). However, few studies found a negative relationship between cumulative GPA and student course performance, such as Turner, Holmes and Wiggins (1997) and Tay (1994) [1]. Ultimately, in the present research, we have tried to illustrate the influence of the scores gained by the students in Principles of Accounting, Mathematics, Economics and on their success in Financial Management course; similarly, some courses related to the fundamentals of financial management course were also included in empirical studies, namely, Mathematics, Economics and Accounting, see for example, Didia & Hasnat (1998), Tay (1994), Garmlich (1993) [1].

Literature Review: Different researches have been conducted about the performance of Accounting and Economics students; but the most practical ones have studied the influence of gender in students’ performance
in Accounting and Economics; the researches mainly, referred to the fact that the females have a better performance. For example: we may refer to the researchers conducted by Tay (1994) and Halth (1998), on the other hand, some studies including the ones carried out by Didia & Hasnat (1998), Rhine (1989), Watts (1998) consider the sexual difference insignificant. Messrs Al-Tamimi and Al-Shayeb (2002) emphasized greatly on this matter due to the conservative attitude against females existing in the Islamic countries such as the United Arab Emirates, they expected that enactment of the restricting laws upon which the females were not authorized to depart their dormitory during the week except for meeting their families at the weekend, causes the productivity augmentation and increasing the scores of the females; this was not realized in their research and they found that males had better performance which was supported by the practical researches already conducted extensively. They also considered that one of the important factors in students’ performance is their interest and participation in classes; they insisted on this factor because many of the students have no interest in banking sciences and financing. This may be resulted from their religious beliefs. As we know, interest is prohibited in the Holy Religion of Islam. Therefore, People usually show no eagerness toward involving in financial affairs. Therefore, they emphasized greatly that the professor should insist on the students’ participation in classes [1].

Likewise, Worthington & Higgs found out that gender has a role to play in the choice of the finance major. While at least some ‘gender bias’ is removed when perceptions and attitudes to the profession are taken into account, the fact remains that female students are much less likely to select a major in finance than their male counterparts. The suggestion is: possible policy changes include a greater effort by educators to make the finance curriculum more gender inclusive and ensuring that evaluation does not favor male learning styles. More generally, there is also the requirement that teaching faculty are gender balanced and that students are presented with female role models and mentors [2].

Trine & Schellenger, past academic performance (basic finance course grade, cumulative grade point average, first financial accounting course grade, general education grade point average) and academic aptitude (ACT Science and ACT Math) were significant factors in predicting academic performance in an upper level finance course. These results corroborate earlier studies. Of the psychological factors (self-esteem, stress/tension, motivation and locus of control), only the motivation factor was significant. The psychological factors of self-esteem, stress/tension and locus of control were not significant [3].

Moreover, Eloine Eikner & Montondon examined 8 variables which were included: 1- Grade Point Average in College 2-Score on Protest 3- Transfer Statue 4- Grade in Principle 5- Majority and Minority Racial Status 6- Student Age 7- Expected Grade in Intermediate I 8- Course load for semester. Finally, they found the eight variables identified as potential indicators of success in intermediate accounting I, only three are significant. The final model includes the following three variables significant at a probability level less than 0.05: college grade point average, grade in the first accounting principles course and age [4].

Tsui-Fang & Jennjou found that, cumulative attendance has produced a positive and significant impact on students’ exam performance. Attending lecture corresponds to a 4% improvement in exam performance and the marginal impact of cumulative attendance on exam performance is also close to 4% [5].

The results of Brookshire and Palocsay suggest that the strongest predictive variable is a student's college grade point average, indicating that overall academic performance to date has more influence than mathematical skills on the outcomes in Management Science classes. These findings have implications for faculty who desire to improve the effectiveness of instruction for their Management Science students [6].

Florence and Charles concluded that, Performance in Intermediate I did not significantly differ between students who had already taken cost accounting vs. those who took it subsequent to Intermediate I. We found that cost accounting students performed better in the first finance course if they delayed finance until after taking cost accounting. These results may have implications for student academic advisement on course sequencing [7].

Elahi conducted a research entitled “Studying the effectiveness of Approved Syllabus and Curriculum for Undergraduate (Bachelor’s Degree) Program in Accounting” in 2004. The results of his research showed that the specialized courses had much influence and the basic courses had an acceptable effect on enabling graduates to enter the labor market in different areas of accounting [8].

In a research, Saghafi & Novin (1990) [9] studied the skills and characteristics required for the graduates of Accounting who are engaged in occupations related to Management Accounting; they emphasized that analyzing these skills and characteristics may be useful in presenting an appropriate structure for Accounting curriculum (Cheng, 2007) [10].
Shorvarzi & Sabouri (2008) found evidences that there is a positive and significant relationship between point gained in nationwide entrance exam of university, average of scores in Accounting course and Mathematics and students’ performance in Advanced Accounting course. Also, students’ gender cannot impact on their performance in learning Advanced Accounting [11].

Burnet et al. in 2010 found that, after controlling for the demographic and environmental variables known to affect performance, a student’s perceptions of their accounting skills do not impact first exam test performance in Intermediate I. In contrast, a student’s perceptions of grade are significantly associated with the test performance. Our interpretation of these results is that a student’s self evaluation of his/her ability to do well in Intermediate I may not be accurate and is not directly related to the actual grade. On the contrary, a student’s commitment to the efforts he/she plans to put forth is significantly associated with the actual grade [12].

Kaighobadi and Allen in 2008 attempted to understand factors that affect academic success for business students by examining gender, age, ethnicity and performance in two required core knowledge courses as predictors of academic success for a large sample of undergraduate students at a Association to Advance Collegiate Schools of Business–accredited business school. The results suggest that student performance is significantly related to some basic demographic variables, but the strongest predictors of overall academic success are the grades the students receive in core knowledge courses that are typically taken in the earlier semesters of business students' plans of study [13].

Al-Motairi concluded that the Grade Point Average (GPA) of the student is affected by age, score of the high school and nationality. In addition, the results revealed those younger students perform better than mature students and non-national students perform better than national student. The results further revealed that significant gender differences exists, female students perform better than male counterparts in line with a significant number of previous empirical studies. More importantly, the results of the analysis indicated that marital status plays a significant role in determining the student's performance by confirming that married students perform better than non-married counterparts [14].

Methodology: The present research was conducted on Accounting and Business Administration students at the Islamic Azad University. Our sample includes 74 male and 66 female students from which 70 were studying in the field of Accounting and 70 students in Business Administration.

The required information for this paper was gained from two sources:

- The information about Financial Management which is a basic course including the students’ scores in Financial Management I & II, Economics I & II (micro and macro), Basic Mathematics, Statistics, Mathematics and its application on Management & Principles of Accounting I & II obtained from the transcripts of the students and official documents of the university.
- The data about the students’ genders, their points gained in nationwide entrance exam, their fields of study in high school and their fields of study in university were extracted from the students’ transcripts in nationwide entrance exam.

According to the research these hypotheses arise:

**H 1:** The scores gained by the students in Principles of Accounting have a significant effect on their success in Financial Management course.

**H 2:** The scores of Mathematics have a significant effect on students’ success in Financial Management course.

**H 3:** The scores gained by the students in Economics have a significant effect on their success in Financial Management course.

**H 4:** The students’ fields of study in high school have a significant effect on their success in Financial Management course.

**H 5:** The scores gained by the students in Nationwide Entrance Exam of Universities have a significant effect on their success in Financial Management course.

**H 6:** The students’ genders have a significant effect on their success in Financial Management course.

**H 7:** The students’ academic fields of study have a significant effect on their success in Financial Management course.
At the next step, the research hypotheses are studied and tested.

**Analysis of Linear Regression Model:**

\[
SFMC = \alpha + \beta SAP + \varepsilon
\]

**SFMC:** Success in Financial Management Course  
**SAP:** the first score in accounting principle  

Fitting the linear regression model of the formula, the following results were obtained:

- \( R^2 \) is 0.155 i.e. about 15% of the variations of the dependent variable is describable by independent variable.

  The p-value for the null hypothesis (\( H_0: \beta = 0 \)) which indicates the lack of any relation between the students’ scores in Financial Management course and the score of Accounting Principles is less than 0.05. Therefore, the null hypothesis is rejected with a certainty of 95%. Accordingly, there is a significant relation between the students’ scores in Principles of Accounting and Financial Management course.

Considering the table of coefficients, the fitted regression model was obtained as follows:

\[
SFMC = 7.869 + 0.282 \text{ SAP}
\]

**Testing the Second Hypothesis:** Analysis of Linear Regression Model of the Second hypothesis:

\[
SFMC = \alpha + \beta SM + \varepsilon
\]

**SM:** Score of Mathematics  

By fitting the linear regression model of the second hypothesis, the following results were obtained:

- \( R^2 \) is 0.153 i.e. about 15% of the variations of the dependent variable is describable by independent variable.

  The p-value for the null hypothesis (\( H_0: \beta = 0 \)) which indicates the lack of any relation between the students’ scores in Financial Management course and Mathematics is less than 0.05. Therefore, this hypothesis is rejected with a certainty of 95%. Accordingly, there is a significant relation between the scores in Financial Management and Mathematics.

The fitted regression model was obtained as follows:

\[
SFMC = 5.727 + 0.44 \text{ SM}
\]

**Testing the Third Hypothesis:** Analysis of Linear Regression Model of the Third hypothesis:

\[
SFMC = \alpha + \beta SE + \varepsilon
\]

**SE:** Score in Economics  

Through fitting the model of SFMC = \( \alpha + \beta SE + \varepsilon \) on data, the following results were gained:

R Square is 0.167 i.e. about 17% of the variations of the dependent variable is describable by independent variable.

The p-value for the null hypothesis (\( H_0: \beta = 0 \)) which indicates the lack of any relation between the students’ scores in Financial Management course and Economics was gained less than 0.05. Therefore, this hypothesis is rejected with a certainty of 95%. Accordingly, there is a significant relation between the scores in Financial Management and Economics.

The fitted regression model was obtained as follows:

\[
SFMC = 5.727 + 0.5 \text{ SE}
\]

**Testing the Fourth Hypothesis:** Analysis of Variance was used for testing the equality of the means of the students’ scores in their different fields of study in high school. And with consideration to the table of Analysis of Variance, the value of test probability is 0.167 that is greater than 0.05, therefore, with a certainty of 95% the \( H_0 \) hypothesis may be not rejected, i.e., the means of students’ scores in three different fields of study are the same.

Therefore, it may be concluded that the students’ fields of study in high school has no influence on students’ success in Advanced Accounting course.

**Testing the Fifth Hypothesis:** In this hypothesis, there is a significant relation between the students’ points in nationwide entrance exams and their success in Financial Management.

Analysis of Regression Model of the Fifth Hypothesis:

\[
SFMC = \alpha + \beta \text{ the point in nationwide entrance exam} + \varepsilon
\]

R Square is 0.028 i.e. about 2.08% of the variations of the dependent variable is describable by independent variable.
Table 4: Descriptive Statistics of Different Fields Of Study

<table>
<thead>
<tr>
<th>Field of study</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>57</td>
<td>11.7834</td>
<td>8.38</td>
<td>015.75</td>
<td>18.25</td>
</tr>
<tr>
<td>Experimental Sciences</td>
<td>41</td>
<td>12.3136</td>
<td>2.4241</td>
<td>8</td>
<td>18.25</td>
</tr>
<tr>
<td>Mathematics</td>
<td>42</td>
<td>12.7108</td>
<td>9</td>
<td>18.75</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>140</strong></td>
<td><strong>12.1108</strong></td>
<td><strong>2.6023</strong></td>
<td><strong>9</strong></td>
<td><strong>18.75</strong></td>
</tr>
</tbody>
</table>

Table 5: ANOVA

<table>
<thead>
<tr>
<th>Variations</th>
<th>Sum of Squares</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>18.179</td>
<td>2</td>
<td>9.09</td>
<td>10.817</td>
<td>0.167</td>
</tr>
<tr>
<td>Within Groups</td>
<td>585.398</td>
<td>137</td>
<td>5.003</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>603.577</strong></td>
<td><strong>139</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.793</td>
<td>2.556</td>
<td>0.012</td>
</tr>
<tr>
<td>Point in nationwide entrance exam</td>
<td>0.168</td>
<td>10.827</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Table 7: Descriptive Statistics Based on Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>74</td>
<td>12.4702</td>
<td>2.3022</td>
</tr>
<tr>
<td>Female</td>
<td>66</td>
<td>11.9521</td>
<td>2.1811</td>
</tr>
</tbody>
</table>

Table 8: Independent Samples Test

<table>
<thead>
<tr>
<th>Financial Management</th>
<th>Test for Equality of Variances</th>
<th>T-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p value</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>0.48</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Table 9: Descriptive Statistics Based on Field of Study

<table>
<thead>
<tr>
<th>Field of study</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>70</td>
<td>12.78</td>
<td>2.1017</td>
</tr>
<tr>
<td>Business Administration</td>
<td>70</td>
<td>11.66</td>
<td>2.2747</td>
</tr>
</tbody>
</table>

Table 10: Independent Samples Test

<table>
<thead>
<tr>
<th>Financial Management</th>
<th>Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p value</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>0.9</td>
<td>0.001</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>79</td>
<td>117.266</td>
</tr>
</tbody>
</table>

Table 11: General Conclusion Gained from Testing Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statistical Method</th>
<th>Result of Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Simple linear regression</td>
<td>Reject H0</td>
</tr>
<tr>
<td>Second</td>
<td>Simple linear regression</td>
<td>Reject H0</td>
</tr>
<tr>
<td>Third</td>
<td>Simple linear regression</td>
<td>Reject H0</td>
</tr>
<tr>
<td>Fourth</td>
<td>Analysis of Variance</td>
<td>Do not reject H0</td>
</tr>
<tr>
<td>Fifth</td>
<td>Simple linear regression</td>
<td>Do not reject H0</td>
</tr>
<tr>
<td>Sixth</td>
<td>t-test</td>
<td>Do not reject H0</td>
</tr>
<tr>
<td>Seventh</td>
<td>t-test</td>
<td>Reject H0</td>
</tr>
</tbody>
</table>
The p-value for the null hypothesis (H₀: β=0) which indicates the lack of any relation between the students’ scores in Financial Management course and their points in nationwide entrance exam was gained more than 0.05. Therefore, this hypothesis is not rejected with a certainty of 95%. Accordingly, there is a significant relation between the students’ points in nationwide entrance exam and their scores in Financial Management.

**Testing the Sixth Hypothesis: in this Hypothesis:**

T-test was used for independent groups in order to test the equality of average and the following results were obtained:

SFMC = α + β the averages of the male and female students’ scores gained in Financial Management +e:

Considering the fact that the p-value for equality of variances is 0.48 and is more than 0.05, therefore, the hypothesis of the equality of variances is not rejected. In the line related to the equal variances, the value of probability of testing the equality of averages is obtained 0.21 that is more than 0.05. Therefore, it may be concluded that the averages of the male and female students’ scores gained in Financial Management are the same and there is no significant difference between them.

**Testing the Seventh Hypothesis:** In this hypothesis, there is a significant difference between the students’ fields of study in the university and their success in Financial Management.

For testing this hypothesis, we test whether the means of the students’ scores in Financial Management in two fields of study including Accounting and Business Administration are the same or not; therefore, we consider the null hypothesis as follows:

H₀: The means of scores in Financial Management gained by the students of Accounting and Business Administration are the same.

**Test for Equality of Means:** T-test was used for independent groups in order to test the equality of average and the following results were obtained:

Considering the fact that the p-value for equality of variances is 0.001 and is less than 0.05, therefore, the hypothesis of the equality of variances is rejected.

In the line related to the equal variances, the p-value of testing equality of means is obtained 0.006 that is less than 0.05.

Therefore, it may be concluded that the means of the scores gained by the student of the above-mentioned fields of study in Financial Management are not the same and there is a significant difference between them. It is noteworthy that the mean of scores gained by the accounting students is more than business administration students.

**CONCLUSION**

This table shows the whole hypotheses briefly:

The analysis of the results shows that there is a significant relationship between the scores gained by the students in Principles of Accounting and their success in Financial Management. For instance, students who learnt Principles of Accounting better, may have a direct influence on their success in learning the topics rose in Financial Management. There is a significant relation between the students’ scores in Mathematics and their score averages in Financial Management which indicates the influence of Mathematics on students’ success in learning the topics rose in Financial Management. There is a direct and significant relation between the students’ scores in Economics and their score averages in Financial Management which indicates that the students’ better learning of Economics can have a direct influence on their success in learning the topics raised in Financial Management. There was no difference between the averages of scores gained by male and female students in Financial Management. Thus, gender cannot have an influence on students’ success in learning the topics discussed in Financial Management which is confirmed by Diadia, Hasanat, Rahini and Watson. Another factor which has not great influence on learning Financial Management is the averages of scores gained by the Accounting and Business Administration students in Financial Management owning to the scores obtained by the students of the two fields of study in Financial Management are the same. Eventually, the students’ performance in Financial Management is severely affected by their scores in Principles of Accounting, Economics and Mathematics.

**Suggestions:**

- We strongly recommend that the Accounting and Business Administration students to deem the prerequisite courses of Financial Management.
especially, Principles of Accounting, Economics and Mathematics which are vital and they should try in learning them very well. Thus, they can have a better performance in the specialty course of Financial Management in the last semesters. It should be noted that, this finding is in agreement with Blaylock’s (2008) finding which showed variables, such as the number of background courses taken have a direct impact on final grades. The quantity of prerequisite courses and their timing are found to significantly influence student performance in the introductory finance course. This shows that adequate and timely exposures to prerequisite subjects are helpful in learning finance [15].

- The following suggestions are presented to the Committee for Planning the University Courses, Executive and Scientific Boards of Universities, the lecturers and professors who teach Accounting and Economics:

  - Emphasis on the importance and improvement of the quality of teaching Principles of Accounting and Mathematics.
  - The necessity of considering Principles of Accounting and Economics as the prerequisite for Financial Management.
  - The necessity of considering Mathematics as the prerequisite for Financial Management in higher semester and as an inseparable part of Accounting and Business Administration.
  - It is suggested that, there should be emphasized on the field of study for having success in Financial Management course. Thus, admission for Financial Management field, students who were studying in Accounting and Business Administration should be put in the first priority.

REFERENCES

9. Saghafi, A. and A. Novin, 1992. Promotion of Teaching Accounting in Developing Countries: Case study in Iran”, Periodical of Accounting Analysis, Faculty of Management, the University of Tehran, First Year, pp: 2.