

## COMPARISON OF ACCOUNTING AND OTHER PROGRAM STUDENTS' PERFORMANCES IN INTRODUCTORY ACCOUNTING COURSE

## MUHASEBE PROGRAMI VE DİĞER PROGRAM ÖĞRENCİLERİNİN MUHASEBEYE GİRİŞ DERSİNDEKİ PERFORMANSLARININ KARŞILAŞTIRILMASI

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### ABSTRACT

*The purpose of this study is to compare the performance of students enrolled in Accounting and Non-Accounting Programs (Management, Foreign Trade, Banking, and Office Management) in introductory financial accounting course. The results indicated that Accounting Program students outperformed Non-Accounting Program students significantly. This significant difference is attributable to the willingness and motivation of accounting program students to be become accountants. However, the study indicated that accounting program students are weaker than other program students in terms of placement examination score, and grade point average. The lowest placement examination score and grade point average belonging to the Accounting Program students causes some concerns about the accounting profession's future. Because, it seems that the Accounting Program can not attract high aptitude students. This finding conveys a message for related parties involved in the profession to find out the reasons, and remedies to the problem.*

### ÖZET

*Bu çalışmanın amacı muhasebe programına kayıtlı öğrenciler ile diğer program öğrencilerinin (İşletme, Dış Ticaret, Bankacılık, Büro Yönetimi) finansal muhasebeye giriş dersi performanslarının karşılaştırılmasıdır. Sonuçlar, muhasebe dersi öğrencilerinin diğer program öğrencilerine göre anlamlı derecede daha üstün performans gösterdiklerini ortaya koymuştur. Bu anlamlı fark, muhasebe programı öğrencilerinin muhasebeci olmak için istekli olmalarına ve motivasyona verilebilir.*

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*Bununla birlikte araştırma, programa yerleşme puanı ve genel ortalama dikkate alındığında muhasebe programı öğrencilerinin diğer programlardan daha zayıf olduğunu göstermiştir. Muhasebe programı öğrencilerine ait olan en düşük yerleşme puanı ve genel ortalama mesleğin geleceği adına bazı kaygılara sebep olmaktadır. Çünkü, muhasebe programı, yüksek yeteneğe sahip öğrencileri kendisine çekememektedir. Bu bulgu, meslekle ilişkili tarafları problemin sebeplerini ve çarelerini bulma konusunda bir mesaj taşımaktadır*

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Accounting education, Accounting, Student performance  
Muhasebe eğitimi, Muhasebe, Öğrenci performansı

## 1. INTRODUCTION

One of the major decisions that anyone makes in his or her life is deciding a degree program. Because, chosen degree program during college or university times becomes fundamental for the remaining life of the student.

Some prior studies showed that there has been a decline in student enrollment in accounting programs in recent years (Mauldin, Crain and Mounce, 2000; Nelson, 1989; Adams, Pryor, and Adams, 1994; Glass and Oakley, 2003; Tan and Laswad, 2006; Smith, 2005; Chen, Jones and McIntyre 2002; Garner and Dombrowski, 1997). Some of these studies point out another concern that is accounting programs are not attracting high-aptitude students. This results in quality problems as well in the profession. Vangermeersch (2000) participated in the argument with the article titled "Fifty reasons for the decline in the quantity and quality of accounting majors". In the article, he discusses the possible reasons of the decline in the number and quality of accounting majors in our business schools.

Introductory accounting courses which are taught in business majors are important in making decisions regarding students' both education and postgraduate lives. Some prior studies peculiar to the subject emphasized the importance of the first accounting course to become accounting or non-accounting major (Mauldin et al., 2000; Geiger and Ogilby, 2000; Saudagaran, 1996). Geiger and Ogilby (2000, p.64) attribute the importance of the first accounting course to its ability to both presenting useful accounting information that can lead to better decision-making for all business majors, and attracting, or discouraging, individuals from becoming accounting majors.

The Accounting Education Change Commission (AECC, 1992) also stresses the importance of the first course in accounting in the Position Statement No. Two. The Commission states that the first course in accounting can significantly benefit those who enter business, government, and other organizations, where decision-makers use accounting information (AECC, 1992, p.249). The AECC (1992) also states that the first course in accounting is more significant for those who consider carrier in accounting

currently and potentially. Because, the course shapes their perceptions of (1) the profession, (2) the aptitudes and skills needed for successful careers in accounting, and (3) the nature of career opportunities in accounting (AECC, 1992, p.249).

Wooten (1998) states that two factors have a direct influence on student performance: the student's aptitude and the amount of effort the student puts forth in the course. Previous studies provide a broad list of factors that have been included in empirical models to predict achievement in accounting course. Among these factors are math grade, gender, grade point average (GPA), college math grade, high school accounting experience, relevant work experience, scholastic aptitude test score, and area of interest.

The purpose of this paper is (1) to investigate achievement levels of Accounting and Non-Accounting Program students in an introductory financial accounting course, and (2) to relate the study results to the student's academic aptitude and the amount of effort the student puts forth in the course.

The remainder of the paper is organized as follows. In the second part, literature review is provided. In the third part, brief information is given about vocational schools in Turkey. The fourth part presents scope and methodology of the study. The fifth part discusses the results, and the last part make concluding remarks.

## **2. LITERATURE REVIEW**

Literature provides sizable studies about factors influence student performance in accounting course. However, there are not many comparative studies for accounting and non-accounting majors in relation to performance in accounting performance. Some are summarized in the following paragraphs.

Rankin, Silvester, Vallely, & Wyatt (2003) investigated the impact of student diversity on performance of first-year undergraduate accounting students. They proved that students who are enrolled in an accounting major achieved a higher grade/overall result in Introductory Accounting than students who are not enrolled in an accounting major.

Grudnitski (1997) found that the students' desire to be accounting major has significant forecasting power on the achievement level in the Managerial Accounting course.

Doran, Bouillon, & Smith (1991) proved that being enrolled in an accounting major is significantly and positively correlated with test performance in both Accounting Principles I and II.

Turner, Holmes, & Wiggins (1997) indicated that accounting majors scored significantly higher than non-accounting majors on the initial and final test in the Intermediate Accounting I.

Geiger & Ogilby (2000) conducted a study over both accounting and non-accounting majors. They proved that intended accounting majors perceived the first accounting course more favorably than non-accounting majors at the beginning and end of the semester, both groups showed relatively positive attitudes toward the course. However, the perceptions of the students were similarly less favorable by the end of the course for both groups. The largest perceptual change over the semester was the students' increased indication of boredom with the course. They also found evidence of the important role individual instructors play regarding changing student perceptions and selection of accounting as a major.

### **3. VOCATIONAL SCHOOLS IN TURKEY**

Due to the sample for this study was chosen from vocational schools in Turkey, the following brief information is presented about these schools.

Vocational schools give two-year education programs to students in Turkey. Generally, the students who are not able to enroll in four-year faculties prefer these schools. But, after completion of two-year programs, the students are able to continue their education in faculty on condition they become successful in a specific examination.

Vocational schools offer business and non-business programs to the students. Management, Accounting, Banking, Foreign Trade, Office Management, Human Resources, Marketing are among business programs. In general, the students of these programs take introductory financial accounting course as it is needed in business life. In addition to this introductory accounting course, the Accounting Program students study more of accounting courses such as second part of this introductory course regarding year-end adjustments, cost accounting, managerial accounting, computerized accounting, and financial statement analysis.

In addition to working as accountant in private and state enterprises, graduates of the Accounting Programs are likely to work as public accountants too on condition that they meet the necessary requirements.

### **4. SCOPE AND METHODOLOGY**

The purpose of this study is

1. to determine if there is significant difference in introductory financial accounting course performance among business programs (Accounting, Management, Foreign Trade, Banking, Office Management).
2. to relate the study results to the student's academic aptitude (measured by GPA, and placement examination score) and the amount of effort the student puts forth in the course (measured by attendance).

The environment for this study is the students enrolled in the introductory financial accounting course offered to Management (115 students), Accounting (54 students), Foreign Trade (78 students), Banking (36 students), and Office Management (28 students) Programs in Istanbul Vocational School of Fatih University, Turkey. The sample comprises a total of 307 students enrolled in these programs during the academic year 2007-2008.

The collected data was recorded first on Microsoft Excel worksheet, and then transferred to SPSS 15.0 for Windows. In order to analyze the results, the Kruskal-Wallis test which is a nonparametric alternative to one-way ANOVA, was conducted.

## 5. RESULTS AND DISCUSSION

Descriptive statistics regarding the sample is presented in Table 1. The descriptive statistics are given for four variables: placement examination score, GPA, attendance, and accounting grade. Placement examination score is based on the university entrance examination performance. Based on the grading policy ranging between 0 and 4, mean grade point average is 2.31 which seems neither too low nor too high. Compared to GPA, mean accounting grade is lower with 1.88. Mean attendance percentage (83.60%) shows that students are quite well in attending the courses.

In order to determine if there is a significant difference in introductory financial accounting course performance among business programs, the Kruskal-Wallis Test was conducted (Table 2 and Table 3). The comparison of mean ranks showed that Accounting Program students significantly outperformed Non-Accounting (Management, Accounting, Foreign Trade, Banking, and Office Management) Program students. The highest mean rank for the accounting grade belongs to the Accounting Program (199.93) followed by Office Management (168.11), Banking (158.50), Management (154.21), and Foreign Trade (114.32) programs in descending order. The Kruskal-Wallis Test Statistics (Table 3) indicates that difference among programs in relation to accounting grade is significant ( $p < 0.001$ ). Hence, accounting program students outperform non-accounting program students in introductory accounting course. This finding corroborates the findings of earlier studies (Rankin et al., 2003; Doran et al., 1991; Turner et al., 1997). Rankin et al. (2003) proved that students who are enrolled in an accounting major achieved a higher grade/overall result in Introductory Accounting than students who are not enrolled in an accounting major. Doran et al. (1991) proved that being enrolled in an accounting major is significantly and positively correlated with test performance in both Accounting Principles I and II. Turner et al. (1997) indicated that accounting majors scored significantly higher than non-accounting majors on the initial and final test in the Intermediate Accounting I.

To find out the reason beneath significant difference in accounting performance among programs, the following three variables were

investigated: placement examination score, GPA, and attendance. The results indicated that there are significant differences in relation to all these three variables among subgroups ( $p < 0.001$  for placement examination score;  $p < 0.001$  for attendance;  $p < 0.01$  for GPA). The Accounting Program has the lowest placement examination score (mean rank=67.25) and GPA (mean rank=113.58) compared to other programs. Office Management has the highest attendance mean rank (207.89) followed by Banking (202.53), Accounting (197.24), Management (138.96), and Foreign Trade (103.57). Hence, the Accounting Program is in the middle in terms of course attendance.

Significance levels indicate that the four programs differ in terms of all variables (Table 3): accounting grade (significant at 0.001 level), placement examination score (significant at 0.001 level), GPA (significant at 0.01 level), and attendance (significant at 0.001 level).

As GPAs and placement examination scores show, the accounting program can not attract high aptitude students. This finding justify quality problems of accounting majors mentioned in previous studies. For example, Nelson (1989) states “top students head in other directions-in particular, toward finance and information systems”. Adams et al. (1994) say “the accounting major initially attracts high-aptitude students, but tends to lose more of these than it gains, as students progress toward a degree.

Hermanson and Hermanson (1995) state that it is becoming more difficult to attract the “best and brightest” business students into the accounting profession. Garner & Dombrowski (1993), quoted in Hermanson & Hermanson (1995), provides the following possible reasons for this issue:

- students are attracted to more immediate rewards and responsibilities in other fields;
- litigation and personal liability have made the profession less attractive;
- starting salaries in public accounting are too low;
- other areas of business appear more exciting or important than financial accounting;
- accounting still has a bean-counter image;
- students perceive CPA firms to be sweat-shops with long, inflexible hours; and
- the book-keeping approach used in the first accounting course is not appealing to top students.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Placement examination score	307	0.00*	282.31	210.00	69.12
GPA	307	0.00	4.00	2.31	0.74
Attendance	307	6.90%	100.00%	83.60%	16.72%
Accounting grade	307	0	4	1.88	1.381

\* Graduates of vocational high schools for commerce have got a right to enroll to the programs in their own field without entering university examination. In this case, their placement score becomes 0.00.

Table 2: Kruskal-Wallis Test (Ranks)

	Program	N	Mean Rank
Accounting grade	Management	114	154.21
	Accounting	53	199.93
	Foreign Trade	76	114.32
	Banking	36	158.50
	Office Management	28	168.11
	Total	307	
Placement examination score	Management	114	144.53
	Accounting	53	67.25
	Foreign Trade	76	179.99
	Banking	36	210.69
	Office Management	28	213.36
	Total	307	
GPA	Management	114	154.86
	Accounting	53	113.58
	Foreign Trade	76	156.74
	Banking	36	178.86
	Office Management	28	187.59
	Total	307	
Attendance	Management	114	138.96
	Accounting	53	197.24
	Foreign Trade	76	103.57
	Banking	36	202.53
	Office Management	28	207.89
	Total	307	

Table 3: Kruskal-Wallis Test (Test Statistics a,b)

	<b>Accounting grade</b>	<b>Placement examination score</b>	<b>GPA</b>	<b>Attendance</b>
Chi-Square	30.975	85.713	17.904	61.842
df	4	4	4	4
Asymp. Sig.	.000	.000	.001	.000

<sup>a</sup> Kruskal Wallis Test

<sup>b</sup> Grouping Variable: PROGRAM

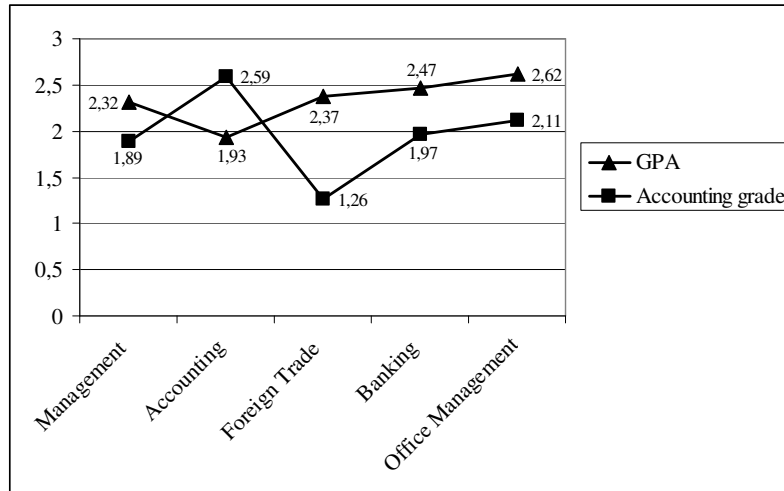
Since this quality issue in accounting education has been realized by academicians, professionals, accounting societies, organizations, and some other related parties, they have been trying to find out some solutions (Elfrink & Woodruff, 2008). For example, Cohen & Hanno (1993) states that accounting education must also focus on attracting and retaining top-quality students to accounting as an academic major to produce graduates with the desired skills and capabilities. To achieve this goal, they make some recommendations such as the following:

- it is necessary to identify the beliefs and factors that influence students' choice of an academic major,
- The success in introductory courses facilitates the choice of accounting as a major. Therefore, restructuring the accounting curriculum should be aimed at the foundation courses.

In addition to statistical analysis, Figure 1 presents the comparison of four programs in terms of GPA and accounting grade graphically. The most interesting point in the graph is the gap between mean GPA and mean accounting grade for the Accounting Program. This shows that the Accounting Program students can not achieve overall success (demonstrated by GPA) as they achieved in accounting course. Management Program has the inverse relationship that Accounting Program has, between GPA and accounting grade. Low accounting grade compared to high GPA shows that the students can not indicate performance in accounting as high as overall performance. This may be due to several reasons such as lecturer factor, weak motivation for the lesson, lack of interest and so on. Similar but seemingly more absurd situation is seen for the Foreign Trade Program. The deepest point for accounting grade shows the danger for the program. Urgent action needs to be taken to investigate and resolve the problem.



Figure 1: Comparison of mean GPAs and mean accounting grades among programs



## 6. CONCLUSION

This paper investigates the student performance in introductory financial accounting course among business programs: Accounting, Foreign Trade, Banking, and Office Management.

The results indicated that Accounting Program students outperform Non-Accounting Program students in accounting course significantly. They achieved this despite their lowest placement examination score and GPA. This may be explained by their motivation and willingness to be accountant.

Secondly, the lowest placement examination score belonging to the Accounting Program students causes some concerns about the accounting profession's future. Because, it seems that the Accounting Program can not attract high aptitude students. This problem may have several aspects: education system, professional organizations, and change in job market. In recent years, similar concerns were voiced by academicians, accounting societies, and professionals in research studies as mentioned in previous parts of the paper.

Another danger is that Accounting Program students have the lowest GPA among five programs. This implies that they are not successful in other courses as much as in accounting. Possible explanations are: (1) their aptitude is low as placement examination score shows, (2) they do not care much about other courses. Actually, today, accounting profession is more demanding than it used to be. The AECC (1990) outlines guidelines to become successful in the profession in Position Statement Number One.

According to the AECC (1990), three components that students should have to become professional accountants are skills (i.e. communication skills, intellectual skills, and interpersonal skills), knowledge (i.e. general knowledge, organizational and business knowledge, and accounting knowledge), and professional orientation

As another major of factor which shows student aptitude, the placement examination score also tells that academic aptitude of the Accounting Program students is lower that Non-Accounting Program students.

The major limitation of the study is that it was conducted in the vocational school og one private university in Turkey, therefore, the results may not be necessarily representative for all other universities. For future studies, it is recommendable to conduct similar studies for wider sample across universities.

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