Personality Profiles as a Guide to Selecting the Accounting Major

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This research considers the issue of personality profiles as related to academic performance in the principles of accounting sequence within the context of declared major area of study, either accounting or business administration. If personality characteristics discriminate between these groups, this information may be productive in guiding students as they select an appropriate major area of undergraduate study. The Predictive Index, a practical, cost-effective, proven system for gathering objective information respecting personality characteristics, is utilized to obtain empirical measurements of four personality traits from a group of undergraduate accounting and business administration majors at a Midwestern university in the United States. Contemporary recruiters increasingly use personality profiles as a means to assess an application pool. The findings of this study provide empirical support for an assertion that declared accounting and business administration majors exhibit different personality profiles respecting two of the four personality traits subjected to analysis after controlling for important demographic differences. This research utilized a cost-effective personality profiling instrument to model a previously untested group of undergraduate students in an effort directed at providing useful academic advising information surrounding accounting majors. For university administration cost containment is always an issue; effective advising and retention of students are core to their missions; and for undergraduate students, proven information sources are extraordinarily useful and highly valuable in supporting successful progression in their studies and timely migration to a career.

Key Words: Business education, accounting education, personality profile, academic performance

Introduction

Today's university students are increasingly in need of studied guidance as they engage in the difficult task of selecting a major area of study. Tuition, fees, and books, as well as personal expenses for room and board, have continued their yearly increases often exceeding the general cost of living index, all leading to increased financial burdens both during one's school years and beyond graduation where student loans are involved. Further pressure to make wise, productive choices is added when class offerings are limited and often difficult, if not impossible, to obtain during the registration procedure as has become all too standard for some institutions. The opportunity to retake classes is sometimes limited or not permitted constraining options should the need evolve to attempt a course again. Opportunities to completely rearrange an academic schedule in the event of an unsuccessful course, given the sequential nature and sometimes sporadic offerings of many required courses in some majors, can be very restricted. Each of these factors, as well as many more not identified here, reinforce and emphasize the importance attached to an early and correct identification of a student's undergraduate major.

Traditionally, students appear to select their major area of study by placing considerable reliance on a subjective analysis involving input from family members, high school advisors, contemporaries, and faculty members – a process that introduces enormous opportunities for personal biases and information overload. Unquestionably, each individual or group that provides advice to the selection process attempts to supply dependable, conscientious information with the best interests of the student in mind. It is a fact, however, that large numbers of students continue to abandon their original majors, as well as second and third choices. Such a tendency supports arguments favoring additional mechanisms to assist students as they pursue this challenging process.

For Colleges of Business Administration, the failures for potential accounting and business majors are most evident in the principles of accounting sequence (commonly among the initial required courses for undergraduate business students in the United States). Such a failure by these students does little to promote self-confidence and makes the choice of a new major, either within or outside of the

College of Business Administration, all that much more soul-searching and difficult. Concurrently, it is possible to assert that wasted time and effort (e.g., tutoring) by accounting faculty and graduate assistants that accompany such failures and are direct costs and byproducts of a failed advising and major selection process, a process that is in need of good information to support informed and effective decisions for all the interested parties.

A body of personality profile research has been undertaken focused on estimating student potential for success in college accounting programs; yet, no model proposed has proven cost-effective and reliable. A cost-effective and reliable empirical model based on the relationship, if any, between student personality characteristics and academic performance in the principles of accounting sequence could potentially provide economical, quantifiable, and understandable information that may prove quite useful to students, parents, and faculty as they consider and offer advise on the selection of an undergraduate major in accounting or business administration. Violette and Shields (2007) report on the use of personality profiling within the hiring practices of some accounting firms (e.g., Berry, Dunn, McNeil and Parker; Clifton Larson Allen). The authors provide a clear and persuasive rationale for why cost-effective practices – such as personality profiles – are advisable to support hiring decisions stating:

Quality employees are essential to the success of any business. Finding ways to identify those who will be most effective within a company's culture is a difficult task. One of the key goals in the recruiting process is to enhance success and retention by identifying competent individuals who will also fit a company's personality. Hiring employees who don't fit is expensive and leads to increased turnover. ... As a result, most companies use a variety of hiring methods to increase the probability of making good hires, including personality profiles and intelligence tests.

It is truly not a great leap in faith to see how changing only a few words in this description would produce a quite reasonable argument for applying personality profile assessments to assist the interested parties within the educational environment. Therefore, this research effort aspires to develop and test such a personality characteristics model within the context of academic majors in Colleges of Business Administration. The research methodology utilizes a previously untested cost-effective, personality instrument, The Predictive Index, to develop personality profiles directed at predicting student performance in the principles of accounting

sequence. While several well-established personality profile tools (e.g., Myers-Briggs) are generally available, broadly applied, and extensively tested, the chosen instrument has the highly attractive traits of cost efficiency and current application in the human resource departments of several professional accounting firms. Such a model, if able to discriminate academic performance, would provide a simple, cost-effective methodology that could be employed to furnish additional guidance to potential accounting and business administration majors.

Literature Review

A substantial body of academic literature exists investigating the personality characteristics of accounting students and professionals. At the same time, few empirical studies comparing the scholastic competence of accounting majors vis-a-vis other majors have been reported. This empirical investigation seeks to synthesize these two research domains in order to examine the relationship between personality characteristics and academic performance in the principles of accounting sequence.

Many authors have investigated the accountant's personality as a basis for identifying possible characteristics of successful accountants. The AICPA Committee on Selection of Personnel (1943) identified four factors essential to success in accounting including general aptitude, technical training, professional interest, and personality. Subsequently, this AICPA group developed and disseminated tests to measure the first three factors leaving personality to future researchers. Royer (1955), in the first effort directed at accounting personality, completed a longitudinal study of 1,234 accounting students at the University of Miami investigating the relationship between ten personality traits and success in basic accounting courses. His findings suggested a strong relationship between certain personality traits and ultimate success in these courses. French (1963) developed a multi-factor personality battery for academic counseling. His test included 12 personality scales and was administered to 4,833 students across eight midwestern colleges. A comparison of the personality scales and grades received in freshman courses permitted the conclusion that certain personality characteristics were indicative of success in accounting coursework.

DeCoster and Rhode (1971) administered the California Psychological Inventory to professional accountants including partners, managers, senior accountants, and junior accountants. The results reveal differences between accountant scores and

those obtained by business executives. This suggests personality profile differences between accountants and other business persons. In a variation of DeCoster and Rhode (1971), Harris (1972) and Harris and Stevens (1973) administered the California Psychological Inventory instrument to professional accountants and a group of accounting students. The findings indicated that accounting students scores were, on average, lower than those obtained by the professional accountants. This would seem to suggest that an accountant's personality profile adjusts with professional experience level or that only certain personality profiles persist and succeed in the accounting profession.

Dinius (1974) studied accountant's personality and individual success in accounting courses. His test battery was based on the Myer-Briggs Type Indicator (MBTI) and included 133 forced-choice items and four performance tests. Research subjects consisted of 101 accounting majors and 149 non-accounting majors at Auburn University. Success in college accounting was measured through a combination of course grade, college grade point average, and ACT score. In general, the findings support an ability to discriminate between accounting and non-accounting majors. Unfortunately, the Dinius test battery is difficult and time-consuming to administer and therefore it does not offer a cost-effective methodology for identifying accounting majors.

Kochanek and Kochanek (1977) investigated accounting student's personality with Cattell's Sixteen Personality Factor Test. Seventy-six accounting majors and 75 practicing CPAs employed a five-point Lickert scale to assess the importance of each of the 16 personality factors to success in accounting. This was followed by the student subjects being administered Cattell's test. The results suggest substantial differences between the personality profiles of male and female accounting students. Such findings are quite interesting especially given the increased presence of female accounting students in Schools of Business over the past ten years. Wheeler (2001) indicates the academic research assessing the application of MBTI to accounting students, teachers and professionals is lacking. Research is this area is needed as many of challenges confronting the accounting profession encompass personality characteristics of accounting personnel.

Taggar and Parkinson (2007) offer a state-of-the-art overview and assessment of personality testing research involving accounting applications. They state that "(t)he idea of personality impacting accounting has received some attention in recent years. However, it is an understudied area and the research to date is somewhat inconclusive." A total of 20 predictive studies across the 1972 to 2000 timeframe are reviewed. Given recent substantive advances in personality theory and measurement by personality psychologists, they conclude and assert that there is a role for personality/accounting research "particularly … for … predictive research."

Haynes, et al (2008) administered two different instruments to assess the stability of personality in two unique situations. The results of this study, which employed the standard Myers-Briggs type and the typo-typical behavior indicators, imply accounting student's personalities vary across environmental situations.

Academic performance of accounting majors compared to non-accounting majors has been explored in four previous studies. Usry (1987) found that Scholastic Aptitude Test (SAT) and American College Test (ACT) scores of Certified Public Accountant (CPA) candidates from 1975 to 1985 had declined in a manner consistent with the national trend. At the same time, the obtained scores of CPA candidates continued to exceed the national level of performance. Inman, Wenzler, and Wickert (1989) reported that SAT scores of declared accounting majors had fallen below those of other college majors. Cheng and Saemann (1994) studied the academic quality of accounting and other university majors finding that accounting students, on average, performed in a superior fashion when compared to other students at a large midwestern university in the United States. Rosacker, Rosacker, and Lau (1995) undertook an assessment of the academic performance by major relationship for Business School graduates at a small, Midwestern university in the United States. Their findings provide compelling evidence that overall grade point average is an excellent predictor of academic achievement in the principles of accounting sequence.

Research Design and Methodology

This empirical assessment seeks to provide a clearer picture of the academic performance of College of Business Administration students in the principles of accounting sequence through a consideration of the intersection between personality traits and academic achievement. The Predictive Index, a cost-effective, practical, proven system for gathering objective information respecting personality characteristics, was utilized to obtain empirical measurements of four personality traits from a group of declared undergraduate accounting and business

administration majors at a Midwestern university in the United States.

Research instrument

The Predictive Index is one-page, two-sided questionnaire requiring approximately 10 minutes to administer to each test subject. Both sections of the device contain an identical list of adjectives with the subjects being asked to describe (1) the way others perceive them using one side and (2) how they would describe themselves using the other side. The scoring of these responses produces a pattern that is used to develop four primary personality trait metrics (Factors A, B, C, and D) describing a given subject. Factor A measures the drive for self-expression or level of assertiveness; Factor B depicts social drive along a scale of introversion to extroversion; Factor C measures emotional tension or the sense of urgency in a person's actions; and Factor D indicates a level of attention to detail traversing a sloppy to perfectionist scale.

Statistical procedures

Using these four Predictive Index personality factor measures (in conjunction with other interesting demographic attributes (e.g., declared major area of study and grade point average)) within the context of academic achievement (defined as course grade), three assessments were completed: (1) simple mean comparisons, (2) chi-square categorical correlations, and (3) logistic regression analysis procedures. Each methodology focused on the four targeted personality characteristics to explore the issues of interest.

Simple mean comparisons (ANOVA) provide statistical methods for assessing and comparing the two groups of declared majors on the four personality characteristics subjected to analysis, without controlling for demographic differences, through a consideration of groupings based on each student's final course grade. Chi-square categorical correlations permit such personality trait contrasts on the basis of more robust factor score groupings while still not controlling for demographic differences. Both of these procedures enable a straightforward determination of whether declared accounting and business administration majors differ with respect to any of the personality attributes placed in consideration.

Logistic regression analysis affords a statistical mechanism facilitating the entry and evaluation of independent demographic variables controlling for general academic aptitude (overall university GPA) and personality traits before consideration of the academic performance by declared major relationship. Many multivariate statistical techniques, including multiple regression analysis and discriminant analysis, could be utilized to predict a dependent variable from a set of independent variables. However, when the dependent variable is dichotomous, as is the case for this study (accounting vs. business administration majors), the "best" multivariate technique is logistic regression analysis. Multiple regression analysis is insufficient because many of the assumptions for hypothesis testing are violated in the presence of a binary dependent variable. As for discriminant analysis, the logistic regression model requires far fewer assumptions and even when the necessary assumptions for discriminant analysis are satisfied by the data, logistic regression still performs quite well.

Subjects

Undergraduate students enrolled in the principles of accounting course at a small, Midwestern university provided the research subjects of interest. Students enrolled in undergraduate accounting classes were asked to voluntarily participate in the study – no incentive or reward was offered for agreeing to participate. Data for each subject was collected from two sources. First, the Predictive Index personality profile was administered to each subject agreeing to participate. This data collection process took approximately 15 minutes for each subject to complete. Second, permission was obtained from the subjects to approach the University Registrar to obtain actual grades received in the two principles of accounting courses and overall undergraduate grade point average prior to taking the principles of accounting sequence. Useable responses and academic records were obtained for 247 students, 162 declared business administration majors and 85 declared accounting majors.

Research findings

Tables 1 and 2 present simple mean comparisons (ANOVA) for each of the four personality factors by declared major and academic achievement. No statistically significant differences were identified in these analyses. Tables 3 to 6 were formulated by reconstructing the four personality factor scores for each respondent. The reconstruction process utilized a normal distribution framework for the respondent scores for each factor. Categorical variables were formed indicating a factor score relative to standard deviations from the sample mean for each factor.

Those scores within one standard deviation of the factor mean (lower or higher) were identified as moderately low or moderately high; those within one to two standard deviations of the factor mean (lower or higher) were coded as very low or very high; and those outside of two standard deviations of the factor mean (lower or higher) were deemed as extremely low or extremely high. In this fashion, the raw score are converted to categorical variables enabling a chi-square analysis of the distributional differences, if any, between accounting and business administration majors on the reconstructed four factor scores. No statistically significant differences were identified in these analyses.

Table 1

Personality Factors by Major

	Mean	Standard Deviation
Factor A		
All Respondents	4.8097	2.9865
Accounting Majors	4.5882	2.6426
Business Administration Majors	4.9259	3.1535
Factor B		
All Respondents	7.7247	4.8209
Accounting Majors	7.3294	4.5287
Business Administration Majors	7.9321	4.9684
Factor C		
All Respondents	7.6032	3.6942
Accounting Majors	7.8941	3.5524
Business Administration Majors	7.4506	3.7682
Factor D		
All Respondents	14.3360	5.5352
Accounting Majors	14.4235	5.1672
Business Administration Majors	14.2901	5.7339
ANOVA Comparisons	F-Value	Significance
Factor A	.7120	.3996
Factor B	.8708	.3516
Factor C	.8029	.3711
Factor D	.0323	.8576
Number of Respondents		247
Number of Accounting Majors		85
Number of Business Administration Majors		162

Table 2

Personality Factors by Academic Achievement in Principles of Accounting Sequence

	Mean	Standard Deviation
Factor A		
All Respondents	4.8097	2.9865
Course Grade—A	4.7733	2.5017
Course Grade—B	5.2824	3.2463
Course Grade—C	4.1757	3.1465
Course Grade—D	5.4545	2.4234
Course Grade—F	6.0000	2.8284
Factor B		
All Respondents	7.7247	4.8209
Course Grade—A	7.5467	4.4122
Course Grade—B	7.8118	4.7119
Course Grade—C	7.5946	5.4469
Course Grade—D	8.8182	4.5786
Course Grade—F	9.5000	3.5355
Factor C		
All Respondents	7.6032	3.6942
Course Grade—A	7.7067	3.6420
Course Grade—B	7.6118	3.4816
Course Grade—C	7.4730	4.0619
Course Grade—D	7.3636	3.7755
Course Grade—F	9.5000	.7071
Factor D		
All Respondents	14.3360	5.5352
Course Grade—A	14.3067	4.9972
Course Grade—B	14.9882	5.7497
Course Grade—C	13.4730	5.7558
Course Grade—D	14.6364	6.1037
Course Grade—F	18.0000	1.4142
ANOVA Comparisons	F-Value	Significance
Factor A	1.5917	.1771
Factor B	.2522	.9082
Factor C	.1788	.9492
Factor D	.9720	.4234
Number of Respondents		247
Course Grade—A		75
Course Grade—B		85
Course Grade—C		74
Course Grade—D		11
Course Grade—F		2

Table 3

Factor A: Standard Deviation Distribution Count by Accounting and Business Administration Majors

	Accounting	Business Administration
Extremely Low	0	0
Very Low	8	21
Moderately Low	40	59
Moderately High	22	50
Very High	14	21
Extremely High	1	11
Chi-Square		6.7480
Significance		.14982

Table 4

Factor B: Standard Deviation Distribution Count by Accounting and Business Administration Majors

	Accounting	Business Administration
Extremely Low	0	0
Very Low	15	25
Moderately Low	27	51
Moderately High	31	60
Very High	11	21
Extremely High	1	5
Chi-Square	1.0124	
Significance	. 90791	

Table 5

Factor C: Standard Deviation Distribution Count by Accounting and Business Administration Majors

	Accounting	Business Administration
Extremely Low	1	6
Very Low	11	23
Moderately Low	21	53
Moderately High	39	54
Very High	13	24
Extremely High	0	2
Chi-Square		5.9039
Significance		.3166

Table 6

Factor D: Standard Deviation Distribution Count by Accounting and Business Administration Majors

	Accounting	Business Administration
Extremely Low	1	4
Very Low	11	22
Moderately Low	33	58
Moderately High	28	49
Very High	9	26
Extremely High	3	3
Chi-Square		2.5644
Significance		.7667

Three logistic regression analyses were fashioned and evaluated. Dichotomous independent variables were formed with a grade of A being assigned as a success and all other grades as non-success. The determination that only an A grade would be classified as success means that some students who ultimately are successful in obtaining an accounting degree were deemed to be business administration majors. In essence, a very high bar is established for accounting majors and therefore a very high bar is set for finding statistical difference between the two groups.   The results for these models are presented in Tables 7 to 9.   In each of these paradigms, undergraduate grade point average was a significant predictor of academic achievement.

Declared undergraduate major was statistically significant when included with undergraduate grade point and marginally significant when included along with the personality measures.   The four personality measures included in the last model revealed statistically significant findings for two characteristics (Factors C and D).   Factor C measures emotional tension or the sense of urgency in a person's actions while Factor D indicates a level of attention to detail traversing a sloppy to perfectionist scale.   It appears that self-selected undergraduate major loses some of its ability to predict academic performance when personality characteristics are included for consideration.

Table 7

Logistic Regression: Academic Achievement in Principles of Accounting Sequence by Undergraduate Grade Point Average (GPA)

By Undergraduate Grade Point Average
Model Summary Statistics:

-2 Log Likelihood	227.392
Model Chi-Square	75.884
Significance	.0000

Independent Variables:

	Wald	Significance
Undergraduate GPA	46.5491	.0000
Constant	51.5025	.0000

By Undergraduate GPA and Major
Model Summary Statistics:

-2 Log Likelihood	222.521
Model Chi-Square	80.756
Significance	.0000

Independent Variables:

	Wald	Significance
Undergraduate GPA	39.1570	.0000
Major	4.8983	.0269

By Undergraduate GPA, Major, and Personality Factors A, B, C, and D
Model Summary Statistics:

-2 Log Likelihood	218.124
Model Chi-Square	85.152
Significance	.0000

Independent Variables:

	Wald	Significance
Undergraduate GPA	40.7290	.0000
Major	3.6343	.0566
Factor A	.2977	.2927
Factor B	.2062	.3249
Factor C	3.8332	.0251
Factor D	2.9539	.0429
Constant	43.5510	.0000

Discussion and Conclusions

Accounting programs must attract and retain quality individuals if they are to prosper. The investment in time, money, and effort to obtain an accounting degree is so substantial that a student who will not succeed academically should not be encouraged to pursue an accounting program of study. It does not serve the student or the school well to graduate accounting majors with little opportunity for gainful employment as a result of a substandard academic background. And, of no minor consequence, the high cost of recruiting and training entry-level accountants makes this initial evaluation of academic potential,

well before the job interview process, crucial and of great service to future employers.

The empirical findings of the three logistic regression procedures confirm previous research indicating that overall undergraduate grade point average is a strong predictor of academic achievement in the principles of accounting sequence. Further, the inclusion of two of the personality characteristics defined within the test instrument also provided evidence of predictability. Such findings support, to some degree, the use of personality profiles in discriminating actual accounting from business administration majors at this early phase of undergraduate studies (generally at the freshman-

sophomore levels). It appears that personality profiles may provide useful information in assisting universities, professors, and students as they consider whether to select accounting as an undergraduate field of study. To the extent that such models are effective, all of the parties to these important decisions would be well served.

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