

**ACADEMIC GRADES AND PRE-BOARD RATING AS
PREDICTORS OF CPA BOARD PERFORMANCE**

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ABSTRACT

This study aimed to determine the predictive power of academic grades and pre-board rating on the CPA Board Performance of accountancy graduates of Central Philippine University for school years 2000-2001 and 2001-2002. Sixty nine of the 94 who took the CPA Licensure Examination responded to a questionnaire administered to collect the data needed. Correlation between variables was determined using Pearson's r , while multiple regression analysis was used to determine the predictive power of the independent variables on board rating. The results of the study show a significant positive correlation between the respondents' academic grades and pre-board rating and the CPA board performance. CPA board performance tended to increase with increase in ratings in board-related subjects and pre-board examination. Ratings in board-related subjects and in the board review examination are significant predictors of CPA board performance, but the latter is a stronger predictor than the former.

INTRODUCTION

Central Philippine University (CPU), a Christian university in Iloilo City in Western Visayas, offers various baccalaureate and graduate programs. Among them is the Bachelor of Science in Accountancy of the College of Business and Accountancy. Students should maintain a minimum grade of 1.75 and get a passing score in the qualifying examination to be able to proceed to second and another one to proceed to third year level. They are also required to take and pass a pre-review course in preparation for the CPA Licensure examination.

There had been growing interest in reviewing the BS Accountancy Program in the Philippines due to the consistent poor performance of examinees in the CPA licensure examination. A survey of some 200 schools offering accounting as an area of concentration showed that many schools have posted less than 20 % passing rate. Subsequent deliberations and further studies led to the issuance of DECS Order No. 5 or the Policies and Standards for Accounting Education. It created the Bachelor of Science in Accountancy (BSA) and ordered its implementation starting school year 1993-1994. To ensure the quality of graduates of the accountancy program the DECS order mandates suspension of program offerings of the schools that cannot produce CPA board passers.

In 1992, the Board of Accountancy revised the syllabi for licensure examinations to ensure accountancy graduates' responsiveness to the publics that they will serve. In spite of these move, the national results of the CPA board examination in the following years were still very discouraging (Manabat, 1995).

The Chairman of the Board of Accountancy, Mr. Eugene T. Mateo in his speech before the graduating accountancy students and faculty members of various universities in Iloilo, challenged the school administrators to improve their CPA Board Performance by increasing the "numerator" and not by decreasing the "denominator".

In relation to the challenge of improving CPA Board Performance of its graduates, CPU has formulated and implemented strict retention policies. As a consequence, its accountancy program has produced many honor graduates and for six consecutive years CPU has maintained an average CPA Board passing rate of 33.5%, which is above the national average passing rate of 18.67%.

CPU's performance, however, still leaves a very big room for improvement. The university should aim for a much higher passing percentage, but to achieve this goal, there is a need to find possible explanations as to why examinees pass or fail in the CPA board exam. This calls for a study on predictors of CPA board examination performance. Since the accountancy curriculum has been streamlined and retention policies have been strictly implemented, it would be interesting to find out if grades in the board-related courses and pre-board rating can predict CPA board performance, and if they do, to what extent.

Studies on predictors of academic performance and licensure ratings abound, however, many of the studies have focused on education, and technical and health-related programs. Prediction studies on CPA board performance are still limited. In Iloilo, studies of predictors of performance in licensure examination of nurses, engineers, teachers, and medicine graduates have been conducted, but none yet has been done among CPA board examinees.

This study aims to identify the predictors of the CPA board performance among the accountancy graduates of CPU. The results of this study can be used by school administrators in evaluating the effectiveness of its accountancy program. The findings can also be used by future CPA board takers as basis in identifying the focus of their studies and review.

Several related studies have been made on determinants of the board examination results. Most studies show that academic performance is significantly related to board performance. Graduates with high grades tend to get high scores in board exams. Pison (1998) in her study of admission grades and college performance as determinants of the board examination results of BSN Graduates concluded that, college performance significantly influenced board performance. A similar result was found by Capiñanes and Manuel (2001) in their study on the relationship between the academic performance and licensure examination for teachers (LET) performance of CPU education graduates. The study revealed a significant positive correlation between their academic grades and performance in the LET general education module.

Another study showed a significant relationship between grades in the undergraduate major accounting subjects and their performance in the CPA Licensure Examinations (Elizaga, 2003). A significant relationship was also found between math performance and

the licensure examination results. The study of Mauriello, Rey, Peterson and Caplan (2007) revealed that overall high performance in the dental hygiene program is predictive of a successful performance on the Dental Hygiene National Board Exam (DHNBE). Another study that showed a positive correlation between two performance factors is the investigation of Zhang (1999) on the "Correlation of Students' Entry-Level General Point Average (GPA), Academic Performance, and the National Board of Chiropractic Examination," which revealed that general point average is a moderate to good predictor for students' academic and board performance.

Considering that most of the studies which examined the link between academic performance and board examination revealed significant correlations between pairs of variables, it could be hypothesized that grades in undergraduate board-related subjects and pre-board examination rating can predict the examinees' performance in the CPA board examination. With limited studies on this specific problem, this study hopes to shed light on the question of relationship between the two factors and CPA board performance.

Objectives of the study

This study aimed to determine the correlation between board-related subjects rating, pre-board rating and CPA board performance among accountancy graduates of CPU for school years 2000-2001 and 2001-2002.

Specifically the study aimed to:

1. Determine the characteristics of the respondents in terms of gender, age, average grades in board-related subjects, pre-board rating, and CPA board performance;
2. determine if there a significant correlation between average grade in board-related subjects and CPA board performance;
3. determine if there is a significant correlation between pre-board rating and CPA board performance;
4. determine the extent to which the average grade in board-related subjects, and pre-board rating, predict the CPA board performance; and,
5. determine which of the two independent variables considered best predicts CPA board performance.

Hypotheses

1. There is no significant correlation between average grade in board-related subjects and CPA board performance;
2. There is no significant correlation between pre-board rating and CPA board performance.
3. None of the variables considered significantly predict the CPA board performance of the graduates.

Theoretical and Conceptual Framework

Taking the CPA board demands preparation and training that starts the first day the candidate steps into the accountancy curriculum until the time he finishes the formal CPA review course. But whether or not a candidate is ready to take the CPA board is a big question. Thorndike's law of readiness describes the same as preparation for action (Hilgard, 1956). Hilgard explains that "When an action tendency is aroused through preparatory adjustments and set attitudes, fulfillment of action is satisfying, while non-fulfillment is annoying.

A rigid academic training and a good review program can therefore be excellent preparations for the CPA board. The researcher perceives that academic and review school performance play a vital role in measuring the preparedness of a candidate and in determining the latter's CPA board performance.

Two independent variables, namely, the graduates' grades in board-related subjects and pre-board ratings as expressed in point and percentage, respectively, were considered as possible predictors on determinants of the CPA board performance, the dependent variable.

Moreover, in cases where the respondents took the CPA board examination twice, the latest CPA board examination rating was used. Figure 1 shows the assumed relationship between the variables.

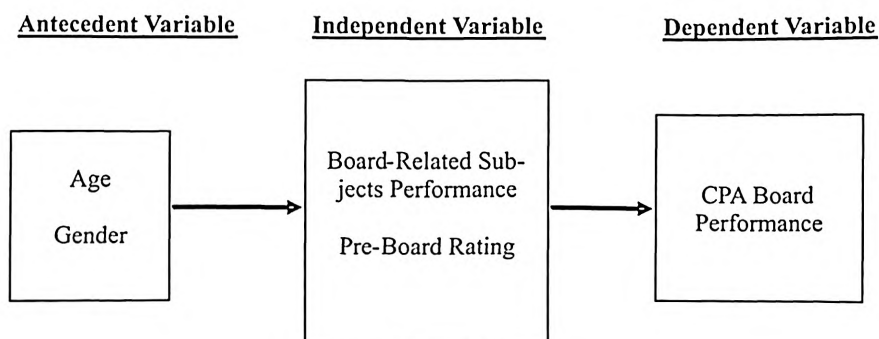


Figure 1. The paradigm of the present study

Significance of the Study

The result of the study may provide basis for the school administrators in crafting the best strategy to improve their accountancy graduates' CPA board performance. Graduates of accountancy and other courses requiring licensure examination will be guided by the results of this study in making self- assessment of their chance to pass in the board examination. The study will also encourage students aiming for professional license to do their best, while having their undergraduate studies and/or having their formal review.

Scope and Limitation of the Study

The study involved 69 of the 94 accountancy graduates of Central Philippine University for School Years (SY) 2000-2001 and 2001-2002, who took the CPA licensure examination. The researcher also respects the confidentiality of the participants' records of ratings in their academic, review school and CPA board examination. As such, performances as measured by grades/ratings during undergraduate studies, formal review and in the CPA board examination were based solely on the participants' responses.

METHODOLOGY*Research Design*

This is a retrospective descriptive-correlational study that utilized records. Additional questions were asked to obtain data which could not be retrieved from documents.

Study Population and Sampling Procedure

The population is composed of accountancy graduates of Central Philippine University for SY 2000-2001 and SY 2001-2002 who took the CPA licensure examination. Of the 94 graduates who took the CPA board examination, only 69 responded.

Data Collection

The data were collected using a self-guided questionnaire. Other data were taken through telephone after sending them the questionnaires.

Data on grades were validated by inspecting files at the Accountancy Department of the College of Commerce and from the reports submitted by the Review Schools. Being aware of the grade requirements in the accountancy program of CPU helped the researcher validate the minimum grades of the respondents. The researcher's participation in activities of board passers also facilitated the gathering and validation of the data.

Data Analysis

After gathering all the questionnaires from participants, each questionnaire was assigned a number for identification. The researcher encoded and analyzed the data using the SPSS program.

The average grades in board-related subjects taken at CPU are expressed in numerical point rating scale with 1.0 as the highest and 2.5 as the lowest rating. On the other hand, the review school and the CPA board examination ratings are expressed in percentage (%) rating with 100% as the highest rating and 58% as the lowest rating. To

determine the equivalent of these ratings, the following transmutation table was adopted:

| CPU Equivalent Rating | Review School/CPA Board Performance (in percentage) | | | | | | |
|--------------------------|-----------------------------------------------------|-------|-------|-------|-------|-------|-------|
| | 98-100 | 93-97 | 86-92 | 80-85 | 73-79 | 66-72 | 58-65 |
| | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 |

The variable CPA Board Result (categorized as passed, conditioned or failed) was used to measure the graduates' performance in the CPA Board Examination instead of CPA Board Examination Rating because there were cases where an examinee has obtained low rating/s in one or two board subjects but was given "passed" result. On the other hand, there were cases where an examinee obtained high rating in some board related subject/s, but was given "conditioned" status.

To describe the respondents' performance in the review school as well as in the CPA board examination and in accounting subjects taken in the undergraduate, frequency tables and measures of central tendencies were generated. Pearson's r was used to determine the extent of correlation or relationship between variables.

Multiple regression analysis was used to predict performance of respondents in CPA Board Examination. Since multicollinearity exists among variables, a step-wise discriminant analysis was performed to build a predictive model of independent variables that could best predict performance in the CPA Board Examination.

RESULTS AND DISCUSSION

This section describes the characteristics of the respondents in terms of gender, age, average grades in board related subjects, pre-board rating, and CPA board performance.

Table 1 shows that the majority (63.8 %) of the respondents were females; and only 36.2% were males. The majority of them (72.5%) were 21 years old or younger, while 24.5 % were 22 to 23 years old. Only 2.9 % were 24 years old or older by the time they took the board examination. The average age of respondents was 21.29.

Table 1: Characteristics of Respondents When Described in Terms of Gender and Age.

| Category | f | % |
|------------------------|-------|-------|
| Gender | | |
| Male | 25 | 36.2 |
| Female | 44 | 63.8 |
| Total | 69 | 100.0 |
| Age | | |
| 21 years old and below | 50 | 72.5 |
| 22 - 23 years old | 17 | 24.5 |
| 24 years and older | 2 | 2.9 |
| Total | 69 | 100.0 |
| Mean | 21.29 | |

Board-Related Subject Rating, CPA Pre-Board Rating and CPA Performance

Table 2 shows the data on the students' rating in board-related subjects in the undergraduate level, their pre-board rating and CPA board performance.

Data show that the majority (53.6%) of the respondents obtained grades ranging from 2.5 to 1.76 in their board-related subjects in their undergraduate level. This is described as low performance. Moreover, 39.1% obtained grades from 1.75 to 1.50 which is equivalent to average performance, while 7.2 % obtained grades ranging from 1.49-1.0, which is equivalent to high performance. When taken as a whole, the mean grade in board-related subjects was 1.7878, described as "low".

Results of the study further show that 43.5 % of the respondents performed low to average in the pre-board examination (50- 79), 37.7 % of the respondents had average performance in the pre-board examination (80-95) and 18.8 % of them performed highly in the pre-board examination (more than 95 rating).

Relationship Between Board-Related Subjects Rating and CPA Board Performance

This section presents the results of the analysis of relationship between the board-related subjects performance and CPA board

performance. Table 3 shows that of the 69 respondents included in this study, majority of those with low performance in board-related subjects failed in the CPA board examination. Furthermore, 21 out of the 69 respondents with average (1.75-1.5) rating in the board-related subjects and all those with high performance (1.49-1.0) passed the CPA board examination. Data further showed that there is a significant relationship between board-related subjects rating and CPA board performance as shown by the chi-square value of 27.79 and a significance value of .000. The hypothesis that there is no significant relationship between the board-related subjects rating and CPA board performance is therefore rejected.

Table 2. Distribution of Respondents in Terms of Grades in Board-Related Subjects in the undergraduate level, Pre-Board Rating and CPA Board CPA Board Performance.

| Indicator | f | % |
|------------------------------|-------|---------|
| Board-Related Subject Rating | | |
| High (1.49 – 1.0) | 5 | 7.2 |
| Average (1.75 – 1.50) | 27 | 39.1 |
| Low (2.50 – 1.76) | 37 | 53.6 |
| Total | 69 | 100.00 |
| Mean | 1.78 | Low |
| Pre-Board Rating | | |
| High (96 – 100) | 13 | 18.8 |
| Average (80 – 95) | 26 | 37.7 |
| Low (50 – 79) | 30 | 43.5 |
| Total | 69 | 100.00 |
| Mean | 79.84 | Average |
| CPA Board Performance | | |
| Passed | 32 | 46.4 |
| Conditioned | 5 | 7.2 |
| Failed | 32 | 46.4 |
| Total | 69 | 100.0 |

Table 3. Board-Related Subjects Rating and CPA Board Performance.

| Board-Related Subjects Rating | CPA Board Performance | | | | | |
|-------------------------------|-----------------------|-------|-------------|-------|--------|-------|
| | Passed | | Conditioned | | Failed | |
| | f | % | f | % | f | % |
| High (1.49-1.0) | 5 | 15.6 | 0 | 0.0 | 0 | 0.0 |
| Average (1.75-1.5) | 21 | 65.6 | 1 | 20.0 | 6 | 18.8 |
| Low (2.5-1.76) | 6 | 18.8 | 4 | 80.0 | 26 | 81.2 |
| Total | 32 | 100.0 | 5 | 100.0 | 32 | 100.0 |

Chi-square= 27.79

Sig. = 0.000

Pre-board Rating and CPA Board Performance

Data in Table 4 shows that the majority of the respondents who performed low in the CPA review school examinations failed in the CPA board performance. As observed, a greater percentage of respondents with average performance in the CPA review school examinations passed the CPA board examination. It is also surprising to know that all those who performed high in the CPA review schools examinations passed the CPA board examination. Data also showed that there is significant relationship between CPA review school performance and CPA board performance as shown by the chi-square value of 32.74 and significance value of .000. The hypothesis that there is no significant relationship between the Pre-board rating and CPA board performance is therefore rejected.

Table 4. Relationship Between Pre-board Rating and CPA Board Performance.

| Pre-board Rating | CPA Board Performance | | | | | |
|------------------|-----------------------|-------|-------------|-------|--------|-------|
| | Passed | | Conditioned | | Failed | |
| | f | % | f | % | f | % |
| High (86-100) | 13 | 40.6 | 0 | 0.0 | 0 | 0.0 |
| Average (80-85) | 14 | 43.8 | 4 | 80.0 | 8 | 0.25 |
| Low (50-79) | 5 | 15.6 | 1 | 20.0 | 24 | 0.75 |
| Total | 32 | 100.0 | 5 | 100.0 | 32 | 100.0 |

Chi-square= 32.74

Sig. = 0.000

Correlation Between Board-Related Subjects Rating, Pre-board Rating and CPA Board Performance

Table 5 presents the correlation coefficients between the board-related subjects rating, pre-board rating and CPA board performance.

Based on Garrett's interpretation, there is a substantial correlation between board-related subject rating and CPA board performance ($r=.5724$), and a very high correlation between pre-board rating and CPA board performance ($r=.7553$).

Correlations for board-related subject rating, pre-board rating and CPA board performance are all significant at the 5% level of probability, which means that each of the variables in the matrix (independent) is linearly correlated with the CPA board performance (dependent variable).

In addition, significant substantial intercorellation is found between board-related subject rating and pre-board rating ($r = \text{pre-board rating} .4822$) and there is a significant but slight intercorrelation between location of review schools and review school performance ($r = .3751$). In contrast, there is no significant and negligible intercorrelation between location of review schools and board-related subject performance ($r = .0025$).

This result implies that board- related subjects rating and pre-board rating has a bearing in the CPA board performance of CPU accounting students. This means that the higher the rating in the board related subjects and in the pre-board examination, the higher their chances to pass the CPA board examination.

Table 5. Correlation Matrix for Grades in Board-Related Subjects, Pre-Board Rating and CPA Board Performance.

| Variables | CPA Board Performance | Grades in Board-Related Subject | Pre-Board Rating |
|---------------------------------|-----------------------|---------------------------------|----------------------------|
| CPA Board Performance | 1.00 | $r = .5724$ $p = .000$ | $r = .7553$ $p = .000$ |
| Grades in Board-Related Subject | | 1.00 | $r = -.4822$ $p = .000$ |
| Pre-Board Rating | | | 1.00 |

$p < .05$

Regression Analysis of Grade in Board-Related Subjects, Pre-board Rating and CPA Board Performance

The correlations between the predictor variables and CPA board performance revealed the presence of a substantial correlation between independent variables taken collectively and individually which is significant at the 0.05 level (Table 6).

Both grades in board-related subjects and pre-board rating were found to be significant predictors in the CPA board examination or performance. The beta coefficients show that for every unit increase in pre-board rating there is a corresponding increase of 0.769 in the CPA board performance and for every unit increase in grades in board-related subject, a corresponding increase of 0.314 in the CPA board examination is expected. These findings indicate that among these two predictors, pre-board rating is the stronger predictor of the CPA board performance.

Table 6. Regression Coefficient of Board-Related Subjects Rating, Pre-Board Rating and CPA Board Performance.

| Variable | B | T | Sig. |
|------------------------------|------|--------|------|
| Pre-Board Rating | .769 | 9.817* | .000 |
| Board-Related Subject Rating | .314 | 3.854* | .000 |

Discussion

The analysis proved the importance of academic and review school rating in passing the CPA board. The question as to which of the two variables is a stronger predictor of success in the CPA board finds an answer that establishes the edge of pre-board rating over grades in board-related subjects in the undergraduate level.

The findings of this study support those of Pison (1998), Capiñanes and Manuel (2001) and Elizaga (2003) that academic performance of students is significantly correlated with board performance. The higher, therefore, is the academic performance the greater is the chance of an examinee to pass the board examination rating.

The conclusion of Mauriello et al, (2007) that certain study habits and high study performance are significantly related with board success is confirmed in this study. In general, it can be deduced that many can not pass the CPA board because they have low to average performance in their undergraduate and review classes.

CONCLUSIONS AND RECOMMENDATIONS

Based on the aforementioned findings, the following conclusions were drawn:

1. More females than males took the CPA Board Examination during the school year 2000-2001 and 2001-2002. Moreover, the average age of respondents who took the CPA board examination is 21.9.
2. The majority of the respondents taking the CPA board examination performed poorly in board related subjects during their

undergraduate studies and performed low to average in the pre-board examination.

3. CPU accounting graduates who performed high in their board-related subjects also performed high in the CPA board examination. Thus, CPA pre-board rating has a significant bearing on the CPA board performance.

5. Board-related subjects rating, pre-board rating, and CPA board performance are significantly correlated with each other. Moreover, a substantial correlation exists between grades in board-related subjects and pre-board rating.

6. The higher the grades in the board-related subjects and in the pre-board exam, the higher the examinees' chance to pass the CPA board examination.

7. Grades in board-related subject and pre-board rating are good predictors of performance in CPA board examination. The study indicates that between pre-board rating and grades in board-related subject, the former is a stronger predictor than the latter of CPA board performance.

Based on the findings and conclusions of the study, the following are the recommendations:

1. B. S. Accounting graduates who plan to take the CPA board examination should be more serious in dealing with all the subjects related to board examination to condition themselves in dealing with more complicated problems in the board examination. The schools which offer B. S. Accountancy program should continuously review their curriculum and update their lecture materials to prepare their graduates for the examination.

2. Graduates should attend pre-review classes in preparation for the actual review and the board examination. Through this, they can get updates and refresh their minds with the new trends and strategies in taking the examinations.

3. Future studies should consider either possible predictors of performance in the CPA board examination. Since there is still a big unexplained variance in the CPA board examination, other possible factors, such as the time-gap between graduation and taking the board exam, reading comprehension, mathematical ability and number of hours spent in the review can be studied in relation to CPA board examination results and their predictive power can be examined and compared.

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