

**A STUDY ON THE PERFORMANCE OF COLLEGES
PREPARING CPA CANDIDATES AND IDENTIFICATION
OF INSTITUTIONAL FACTORS THAT AFFECT THE SAME
IN KENYA**

BY

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**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF BUSINESS AND
ADMINISTRATION, FACULTY OF COMMERCE;**

UNIVERSITY OF NAIROBI

SEPTEMBER 1999

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DECLARATION

This management project is my original work and has not been submitted for a degree in any other university.

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DEDICATION

This project is dedicated to Gichobi Family.

For God filled it with the gift of love.

"As it is, these remain.. faith, hope and love, the three of them,. and the greatest of them is love". Romans 1. 1 3.

APPRECIATION

First and foremost, I wish to thank the Department of Accounting, University of Nairobi for awarding me a scholarship that assisted me to carry on with my studies uninterrupted.

Secondly my sincere regards to my three supervisors namely; Prof. N. D. Nzomo, Mr. V. O. Kamasara, and Mr. Abdullatif Essajee for their guidance throughout the research.

I cannot forget uncle Z. K. Ngare and his family for having been like parents throughout my entire academic life, the entire staff of KASNEB led by the executive secretary Mr. Gitau. I wish to extend my warm regards to the following friends; Eunice, Mr. Murithi, Mr. Wanjau, Mr. Makau, Faith, Mr. Gitau (G.G.), Mr. & Mrs. Gathecha, uncle Kariithi and the Njogu family.

My sincere thanks to Esther Kinyanjui, Dina, Mary and her beloved sister, Nduta who tirelessly typed this work, my brothers and sisters, my colleagues both in undergraduate and postgraduate for their encouragement. Finally, I acknowledge the reader, for it was through the burning desire to write and spread my idea and the fact that somebody would appreciate my work that I sat down and wrote.

Above all I thank God, my Creator. I dreamt of this work, put it on a paper and He replied in His own way.

"A human heart makes the plans, Yahweh gives the answer". Proverbs 16:1

Any error of whatever nature is hardly intended and where noted I beg that it remains mine and mine alone.

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List of Abbreviations

AICPA	: American Institute of Certified Public Accountants
CAP 211	: Chapter 211 of The Constitution of Kenya
CAP 531	: Chapter 531 of The Constitution of Kenya
CPA(K)	: Certified Public Accountant of Kenya
DIMA	: Dynamic Institute of Management and Accountancy
GPA	: Grade Point Average
ICPAK	: Institute of Certified Public Accountants of Kenya
IFAC	: International Federation of Accountants
KASNEB	: Kenya Accountants and Secretaries National Examination Board
KCA	: Kenya College of Accountancy
RAB	: Registration of Accountants Board
SAT	: Scholastic Aptitude Test
UON	: University of Nairobi
USA	: United States of America
VIP	: Vision Institute of Professionals

ABSTRACT

This research sought to evaluate performance of colleges preparing CPA candidates and identify institutional factors affecting the same in Kenya. This study was necessitated out of the curiosity to know exactly what happens in these colleges as they have sprung from all corners, yet the supply of CPA professional accountants remained inadequate.

Both primary as well as secondary data were gathered from colleges in Nairobi and Central Provinces. The sample represented 37.3% of the total population of colleges preparing CPA candidates. The primary data was collected from Heads of Business Departments, Heads of Accountancy Courses and Librarians. Primary data were based on those institutional factors that had been established through research to affect performance in examinations. Secondary data on performance of colleges in CPA examinations were collected from KASNEB records.

This data were subjected to Descriptive Statistics, Backward Side Step Multiple Regression, and Factor Analysis. The following seven institutional factors were identified and ranked in order of their contribution to performance in CPA examinations.

- Text books
- Teachers/ trainers qualification and experience
- Programme arrangements
- Teachers Motivation
- Student Selection criteria
- Teachers and Students Discipline
- Other teaching aid materials e.g. pamphlets

The institutional factors so identified through Backward Multiple Regression and Factor Analysis explained 79.8% of college performance in CPA examinations

CHAPTER I

1.0 Introduction.

The major role of accountants in the society is to measure the economic performance of economic entities and communicate the same to the different users. The users of accounting information are many and each category of them will have to be supplied with a different set of information for decision making purposes. To effectively serve these different users of accounting information, the accountant has to be trained on different specializations available in the discipline of accounting. The role played by an accountant as a provider of accounting information to different users requires that the accountant should have the necessary knowledge and skills to;

- (i) collect and process financial information to be used specifically by the entity's management in planning, organizing, directing and controlling operations.
- (ii) collect and process financial information for purposes of reporting to interested parties outside the accounting entity. These parties include investors, tax assessors, lenders and employees. The accountant has to prepare financial statements which include balance sheet, income statement, and a cash flow statement in order to serve these people.
- (iii) verify that what the accounting statements show is a "true and fair" presentation of the financial position and the results of operations of the accounting entity. This verification involves independent examination of the books of accounts and the vouchers of the entity with the view to forming an opinion as to whether the statements derived therefrom show a "true and fair" view of the entity's state of affairs and results of operations. This opinion by the accountant (auditor) is relied

upon by the various stakeholders including shareholders, government, potential investors and lenders in their decision making regarding the operations of the entity.

To discharge his/her role professionally, an accountant's quality is defined through what Prof. N.D.Nzomo(1996) referred to as "core of professionalism". This is what defines the accountant's work in public service provision. Like any other profession, accounting embraces specific qualities and characteristics. The International Federation of Accountants (IFAC) has delineated the qualities and characteristics of accounting profession as: -

- (i) mastery of a particular intellectual skill, acquired by training and education.
- (ii) acceptance of duties to society as a whole in addition to duties to the client or employer. The overriding consideration is service as opposed to monetary gain.
- (iii) an outlook which is essentially objective.
- (iv) rendering personal services to a high standard of conduct and performance.

For the accounting profession to achieve the above qualities and characteristics, the accountants are guided by the following principles and tenets as summarized by Prof. N.D.Nzomo (1996).

- (i) Intellectual Honesty and Integrity.
- (ii) Professional Competence and Proficiency.
- (iii) Objectivity, Neutrality and Independence.
- (iv) Confidentiality
- (v) Technical Standard and Tenets.
- (vi) Professional Attitude and Behaviour.

To become a professional accountant, one would have to be of a certain minimum level of education, professionally trained as well as having attained working experience. Professional competence and proficiency is knowledge acquired by passing professional examinations which serves as an indicator that one has met minimum requirements. According to Prof. Nzomo (1996), it is unethical to pretend that one is knowledgeable when not.

This tenet is further supported by statement 5 of the Institute of Certified Public Accountants of Kenya (ICPAK) "Notes to Professional Ethics" which categorically states that

" a member should not undertake or continue professional work which he is not himself able to perform" .

Prof. Nzomo (1996) asserts:-

"Professional competence and proficiency self-motivation, self-confidence and positive self-image, to remain professionally competent and proficient, all accountants adapt and follow a programme of continuing professional education".

Professional training is one major factor that equips a person with what actually constitutes professionalism. Training is more focused and specific than education and work experience. It is for this reason that the training process ought to be thorough and refined. It should instill the core principles and tenets that define an accountant as outlined earlier.

Research by J.L Barasa (1997) identified a serious deficit between supply and demand of accountants in Kenya where in 1993 the deficit was estimated at 3503, increasing to

4675 by the year 2000. To minimize this problem ICPA (K) and Kenya Accountants and Secretaries National Examination Board (KASNEB) have been involved in several activities, all geared towards improving the number of qualified accountants in Kenya.

This has been done through encouragement to establish Accountancy Training Colleges. ICPA (K) in particular organized workshops for Heads of Accountancy Training Institutions in 1994, 1996 and 1998 where the participants got a chance to deliberate on ways of improving CPA pass rates. The problem of lack of enough accountants ,however still persist despite the above activities.

Having appreciated the importance of training in improving the number of accountants, the World Bank (1985) sponsored a survey by Cipfa Service Ltd. on how training of accountants could be improved in this country. At the time there were very few colleges engaged in training of CPA candidates notably Strathmore College, Kimathi Institute of Technology, Kenya Polytechnic, Kenya Institute of Administration among others. This study recommended among others the establishment of Kenya College of Accountancy (KCA) to provide quality training.

The usefulness of a college in improving student's performance in CPA examinations depends on several institutional factors, as identified by the following researchers;

Sanders (1972) found out that specific course preparation and coaching/revision have positive impact in performance in CPA examinations. Reilley and Howard (1972) found

that the college one attended correlated positively with the review courses, which in turn was positively associated with performance in CPA examinations. In the same research number of hours one studied while in accountancy training institutions were also found to have significant effect on performance in CPA examinations. Barasa J. L. (1997) found out that KCA positively influenced performance in CPA examinations . According to Barasa's (1997) study, students who studied at KCA qualified as accountants within a relatively shorter period as compared to those studying in other colleges included in his study namely; Strathmore, and Dynamic Institute of Management and Accountancy (DIMA).

From the above, it can be deduced that the issue of training is crucial in the passing of CPA examinations. This is an indication that training institutions play a crucial role in the qualification of accountants.

1.1 Research Questions

To identify factors responsible for differences in colleges' performance in CPA examinations, the following questions provided the guideline.

- (i) What results have colleges obtained in CPA examinations for the period ranging from December 1992 to December 1997 in Kenya?
- (ii) What institutional factors are responsible for the performance in respective colleges in CPA examinations?
- (iii) What is the contribution of different institutional factors to performance in CPA examinations?

1.2 Objectives of the Study

In light of the inquiries specified, this research has the following objectives:

- (i) To find out what results the colleges have obtained in KASNEB CPA examinations for the period ranging from December 1992 to December 1997.
- (ii) To identify institutional factors that contribute to the performance of colleges in CPA examinations.
- (iii) To rank institutional factors in the order of their contribution towards performance in CPA examinations.

1.3 Hypotheses

To achieve the objectives of this research, the following hypotheses will be tested.

Null hypothesis(H₀). The following factors do not affect the performance of a college in CPA examinations.

Library

Library sitting capacity

Number of computer text books in the library

Number of management text books in the library

Number of statistics text books in the library

Number of accounting text books in the library

Number of company law text books in the library

Number of economics text books in the library

Availability of video teaching aid materials

Availability of past papers

Availability of pamphlets

Availability of notes and write-ups

Availability of other teaching aid materials

College entrance examination selection criteria

Number of teachers qualified with five years and above experience

Number of teachers qualified as B. Ed holders

Number of teachers qualified as CPA(K)

Number of teachers qualified as Diploma holders in management, education, and computer

Number of teachers qualified as part CPA

Number of teachers qualified as other degree holders other than B.Ed

Number of teachers qualified as Master degree holder

Number of subjects a teacher handles

Number of weekly lessons per subject

Number of weekly assignments per subject

Number of weekly quizzes per subject

Number of revision sessions per subject

Number of termly exams per subject

Number of tutorial lessons per subject

Number of weekly class discussion lessons per subject

Other benefits provided to teachers besides the pay

Number of students disciplinary cases

Number of teachers disciplinary cases

Alternative Hypothesis(HA); Not HO i.e. The above factors do affect the performance of a college in CPA examinations in Kenya.

1.4 Importance of the Study

It should be realized from the outset that it is not practical to enumerate all the possible beneficiaries of this research finding. However, the research shall enumerate just a few.

(i) Aspiring students

Persons aspiring to join the accountancy profession will benefit by knowing the importance of training in institutions. Students will know what institutional factors to consider before enrolling for studies in an accountancy college.

(ii) Examination Board

This will assist KASNEB in identifying difficulties experienced by colleges while preparing CPA candidates with the aim of increasing qualified accountants. The conclusions drawn in this research too will assist the board in its advisory role to interested groups on the significance of institutional factors in CPA examinations performance.

(iii) Training institutions

This project will answer some of the pertinent issues as concerns what institutional factors affect performance of colleges in CPA examinations. The research findings will assist colleges improve the performance of their students in CPA examinations.

(iv) Career masters and counsellors

These will have a base upon which to advise students on what they should put into consideration before enrolling in an accounting institution while preparing for CPA examinations.

(v) Ministry

The Ministry of Technical Training and Applied Technology will find this research useful in promotion of technical competence in the training institutions. The research finding will also assist the Ministry on what institutional factors to consider important while registering and subsequent supervision of colleges offering CPA syllabus.

(vi) Sponsors

Sponsors interested in employee development can use this report's findings to identify those institutions that can adequately prepare their employees to become professional accountants at minimal expenses. If the period the employee takes to qualify as an accountant can be shortened then the sponsor's cost of training becomes less.

(vii) Academia

The study adds to the body of knowledge in terms of growth and promotion of competence in the profession of accounting.

1.5 Justification for this Research

- (i) No comprehensive study has been conducted on establishing institutional factors that influence CPA performance in Kenya. Studies touching on the institutional factors influencing performance in CPA examinations were done in other countries, notably in America, hence this research aimed at testing the same in the Kenyan scene.
- (ii) The fact that a study by Barasa in 1997 concluded that Kenya College of Accountancy (KCA) positively influenced pass rates and others namely, Strathmore college and DIMA college did not, merited further studies to

identify what factors were responsible for the above observation.

- (iii) This research also aimed at testing and proving or disapproving popular opinions from people considered knowledgeable in this area on what makes one college superior than the other in CPA pass rates.

1.6 Report Content

This research report is in five chapters. Chapter I is made up of introduction to the research area, research questions, objectives, importance and justification of the same. Chapter II covers literature review which describes some of the institutional factors affecting CPA pass rates. Chapter III is the research design which describes population and sample used for this research, data collection procedure, data description and conversion, and methods of analysis used in this research. Chapter IV covers the data analysis and findings whereas Chapter V is comprised of conclusions, recommendations, limitations, and suggestions for further research in this area.

CHAPTER II

2.0 Literature Review

2.1 Introduction

In the past, several studies¹ have been carried out to establish institutional factors that influenced performance in examinations. This has been the case at different levels of education in general as well as in professional accountancy examinations. Studies that were relevant to the current research, hence reviewed, were drawn from secondary school level education, university education as well as CPA examinations.

2.2 Institutional Factors That Affect Performance In Secondary Education Examinations

Eshiwani (1983)

Eshiwani (1983) carried out a study on “Factors that Affect Performance of Students in Kenya Certificate of Education (K.C.E.) in Western Province in Kenya.” The focus of this study was on school factors that influenced performance in examinations.

He obtained data through a questionnaire disbursed by the Provincial Education Officer (P.E.O) to the secondary schools in Western Province. Respondents in this study were headteachers, school teachers who had taught form four and form six students for a minimum of three years in one school, members of the school board of governors, and the Kenya National Examinations Council (K.N.E.C). This study covered 170 schools in Western Province in Kenya.

¹ Eshiwani, (1983); Vruwink & Otto, (1986).

The data collected in this study related to institutional factors; class size, textbooks, preps/homework, school administration and management, libraries, laboratory facilities, teachers' certification, experience, training, professional commitment and transfer index, teacher-pupil ratio, students' performance in pre-primary education and primary education. National statistics data on performance in K.C.E examination was obtained from K.N.E.C.

The data obtained were analyzed by use of descriptive statistics namely; percentages and averages. The following were the findings and conclusions in this study which were considered relevant to the current research.

Out of the 36,381 candidates who sat KCE examination for the period between 1976 and 1982, 13,818 failed. This was a 37.89% failure rate. Western province ranked sixth when compared with other seven provinces in KCE performance for the same period. This led to the conclusion that Western Province had one of the poorest performance in KCE in Kenya for the seven years period covered in the study. Eshiwani attributed this poor performance partly to the following institutional factors;

(i) Class Size

Most schools had more than the Ministry's recommended 40 student per class. Where the class size had been expanded by one or two students, there was no significant effect on the academic achievement. However, where the numbers were blown up by as much as 20 percent, this tended to have a negative effect on the students achievement in examinations.

(ii) School Facilities Including Equipment

These facilities were library, textbooks, laboratories and visual aids. The analysis showed that the nine (9) schools bestowed with the above facilities and equipment were always among the top ten in the province. The average performance in these schools compared favourably with other schools in Kenya. This was in contrast with schools that lacked facilities which on average performed very poorly both at provincial as well as at national level. Further, these facilities and equipment were rated very low by the respondents, i.e. they were lacking in 78.2% of schools in Western province. This in turn was reflected in poor performance of schools in examinations.

The conclusion drawn was that the analysis pointed to the fact that the presence or absence of school facilities distinguished high achieving from low achieving schools.

According to Eshiwani (1983),

“Lack of these facilities could be a major contribution to the poor performance in the secondary schools in Western Province”.

(iii) Teacher Qualification

The ratio of untrained teachers had by far exceeded that of trained teachers in Western province. 60% of teachers were untrained, making it the province with the largest number of untrained teachers in Kenya. The composition of teachers' certification was as follows:- 11.2% were graduate trained teachers, 8.8% of the teachers held a diploma in education, 20.9% of the teachers held S1 qualification (a post form 4 teaching certificate), and the rest of the teachers were either graduates with no teaching credentials, form IV or VI leavers.

In Eshiwani's words:-

"It is safe to speculate that the poor performance in the province could partially be due to this high proportion of untrained teachers".

(iv) Prep/Homework/Assignments

Over 60% of the schools had no formal prep or homework assignments given to the students. Despite prep/homework appearing on the timetables, students were left to do what they liked. Headmasters did not check on their teachers to make sure they set assignments for prep/homework. Majority (65%) of those teachers who administered assignments/homework, rarely marked them.

Eshiwani asserted that:-

"Here is a variable which is "virtually costless in terms of money" but which seems to provide a high return in terms of achievement."

The conclusions drawn in this study could not be justified given that Eshiwani did not establish the relationship between performance and institutional factors. This was so given the use of descriptive statistics as the only tool of analyzing the data in this study. The use of predictive language as evidenced in the following words "safe to speculate; and could be" makes the findings of this study questionable. The study too did not collect data regarding teacher's qualifications from other provinces, hence invalidating the conclusion regarding teacher's qualifications factor. Eshiwani also failed to consider the effect of other factors namely; calibre of students, revision arrangements, mock examinations, among others. The effect of the above factors on performance in examinations could have been measured so as to reach a conclusive study.

The performance of a student in any examination depends on many factors, one of them being how well the student is prepared. The process of preparation is in turn affected by among others the learning facilities available in an institution where learning takes place regardless of the level of education. This being the case, studies in K.C.S.E. would be relevant for the current research inspite of differences in the level of examinations under study. The institutional factors so examined in Eshiwani's study are similar with those at CPA examinations. The current research therefore, borrowed the institutional factors that Eshiwani identified as significant in influencing performance in KCE examinations and tests the same in CPA examinations .

To achieve the above, the current research aimed at employing regression and factor analysis in order to test and rank among others, the following institutional factors' influence on CPA examinations; textbooks, libraries, assignments, teachers' certification, experience and training.

2.3 Institutional Factors That Affect Performance In University Education Examinations

Vruwink D.R. and Otto J.R. 1986

These two researchers conducted a study on "Evaluation of Teaching Techniques for Introductory Accounting Courses in USA." The purpose of this study was to determine the effect of accounting homework (assignment) collection and quizzes on examination scores.

The null hypotheses for this study was:-

Ho: Teaching techniques have no significant influence on the students' exam scores.

Data were collected through a Latin Square Design Table. These data were collected on two morning classes (7.30 am. and 8.30 am.) and two afternoon classes (2.30 pm. and 3.30 pm.) of Managerial Accounting course.

This course was chosen as one instructor taught it. The number of students included from 7.30 am., 8.30 am., 2.30 pm. and 3.30 pm. classes was 36, 58, 41 and 26 respectively. Students who dropped the course or did not take all of the scheduled exams were excluded.

Four exams (each worth 100 points) were administered during the semester. Since classes were both in the morning and in the afternoon, two versions of each exam were prepared. To maintain same level of standard between the two versions, exam questions and problems focused on the same material, but were worded differently to prevent students in the morning classes from providing answers to students in the afternoon classes. The tests were administered severally in order to provide a high level of objectivity in the results of this study.

The four teaching techniques tested were:

- (i) No quizzes or homework (assignments) collection. This group was used for control purposes.
- (ii) Random homework (assignments) collection
- (iii) Daily homework (assignments) collection

(iv) Quizzes

Percentages, mean, analysis of covariance (ANACOVA) and regression were used to analyze the data collected. The findings of this study that were relevant to the current research;

- (i) The highest mean exam scores occurred after homework assignments were collected on a random basis. However, the three motivational teaching techniques varied by less than two percent from the control group.
- (ii) The F-value for the teaching techniques did not meet a reasonable significance level and the null hypothesis could not be rejected. This implied that different teaching techniques had no significant effect on students' exam scores.

The study concluded that homework (assignments) and quizzes did not have significant effect on examination scores.

The findings of this study did not incorporate the possible effect of the afternoon class making reference to morning examination. No effort was used to measure effect of different sample size used in the study. Again the change in the wordings of the examination could have changed the meaning of questions asked, amounting to two different examinations offered hence the observation identified. The students exposed to the examination were also different. The effect of such on performance was not measured.

The conclusions of this study conflicted with that of Eshiwani (1983). Due to these

contradictory conclusions, further research ought to be conducted to establish the effect of homework/assignment on performance in examinations. This research was too aimed at applying different tools of analysis (regression and factor analysis) in order to test and rank among other institutional factors, the influence of homework (assignments) and quizzes' on performance in CPA examinations.

2.4 Institutional Factors That Affect Performance In CPA Examinations

Studies² have also been conducted to provide information on identifying ways of improving performance in professional accountancy examinations. The major objective of these studies was to determine students' factors/attributes that influenced performance in CPA examinations. In the process of achieving the above objective, the studies as reviewed below, also identified some of the institutional factors influencing performance in the same.

Williams D.Z. (1969)

Williams D.Z. in 1969 undertook a study on "A Profile of CPA Candidates." This study aimed at determining the traits of candidates in CPA examinations in USA.

Data were collected through Uniform Statistical Information Questionnaire (USIQ). The exercise of collecting data was a joint effort of the Association of Certified Public

² Williams, (1969); Sanders, (1972); Reilley & Howard, (1972); Barasa, (1997).

Accountant Examiners, the American Institute of Certified Public Accountants, and the State Board of Accountancy.

The data on CPA candidates were obtained on candidates writing the five consecutive CPA examinations from November 1964 to November 1966.

The sample used for this study was obtained as shown below:-

	Examination Date				
	November 1964	May 1965	November 1965	May 1966	November 1966
Examination candidates	17,200	15,200	17,194	15,220	16,809
Candidates who filled the Questionnaire	11,212	11,220	12,385	11,070	12,286
Percentage of participants	65%	74%	72%	73%	73%

Source: Journal of Accounting Review, December 1969

Students characteristics were collected on:- age, sex, number of examination sittings, education, length and type of experience, scores on American Institute of Certified Public Accountants, (AICPA) Orientation and Level II Achievement Tests, Scholastic Aptitude Tests (SAT), American College Tests (ACTS), amount of formal education in Mathematics and Statistics, and formal coaching courses (i.e. residence, correspondence and staff).

The data were analyzed by use of percentages and among the findings and conclusions drawn from this study that were relevant to the current research related to formal coaching courses.

The percentage of students who attended formal coaching courses declined by 8% from

1964 to 1966. 24% of the students enrolled for residence type of formal coaching course, as compared to 4% and 8% for correspondence and staff coaching courses respectively. Out of the total students who passed all the four subjects in the first sittings, 38% had attended the residence type of coaching course as compared to 4% and 12% for correspondence and staff coaching courses respectively. Overall, of all the students who passed all the four subjects during the first sitting, 54% had attended the formal coaching courses as compared to 46% who had not. This meant that:-

- (i) Students who attended formal coaching courses performed better.
- (ii) Residence-coaching courses prepared students better for CPA examinations as compared to the other two formal coaching courses.

The relevance of this study to the current research was that it provided the basis upon which coaching courses were included as among the institutional factors to be tested in order to establish their influence on performance in CPA examinations.

Sanders H.P.. (1972)

Sanders in 1972 undertook a study on "Factors in Achieving Success in the CPA Examinations in USA".

Data were collected through USIQ provided by State Board of Accountancy. The data on CPA candidates were collected for five consecutive examinations from November 1964 through November 1966 and May and November 1970. During this study, a total of 17,600 candidates responded out of which 5,900 were sitting for the first time, and the remaining 11,700 candidates were taking the examination for at least the second time.

This study covered a total of 49 states.

Student characteristics were collected on coaching courses, work experience, educational background and specific course preparation. These data were analyzed by use of percentages, correlation and regression.

Relevant conclusions drawn from this study to the current research included;

(i) Specific course preparation

Between 1966 and 1970, there was an increase in the number of semester hours earned in college by CPA candidates. Candidates with several hours of calculus, probability and computer were better prepared for the CPA examination and performed better than those with few or no hours at all.

(ii) Coaching Course

Most (41%) of the candidates participated in some type of formal CPA coaching courses. Indications from the data were that both classroom and staff coaching courses were helpful in passing the CPA examinations.

A large percentage (54%) of candidates other than those sitting for the examination for the first time had taken a coaching course. This suggested that candidates felt a greater need for a coaching course after failure to complete the examination at one or more attempts. Further, the data indicated that students repeating CPA examinations benefited from formal coaching courses. These observations concurred with those of Williams (1969), and Reilley and Howard (1972).

Reilley and Howard (1972)

These two researchers carried out a study on “Factors Influencing Success in CPA Examinations in USA.” This study was further aimed at providing information for advising on the need of imposing certain minimum requirements that would exclude potentially sub-marginal candidates.

Data were collected through USIQ, provided by the State Board of Accountancy. A sample of 187 subjects, which consisted of first examination sitters in Kansas and Illinois States, USA, in November 1965 and May 1966, was used for this study.

The data were collected on scholastic aptitude test scores, overall college performance prior to joining CPA program, pre-admission accounting training taken, special coaching, hours of self-study, age, years after school, and college attended. These data were analyzed by regression and correlation.

The relevance of this study to the current research related to the findings and conclusions that students who attended review courses performed better than those who did not. This study guided the current research in considering specific courses preparation and coaching courses as among possible institutional factors whose influence on CPA examinations was tested and ranked. This was done by the use of regression and factor analysis.

Review courses too associated positively with the candidate’s performance in CPA

examinations. This led to the conclusion that review courses positively influenced performance in CPA examinations. These observations concurred with those of Williams (1969) and Sanders (1972).

It was on the strength of the above observation that review courses was tested in the current research as one of the possible institutional factors that influenced performance in CPA examinations.

Barasa, J. L. (1997)

Barasa in 1997 conducted a study aimed at determining factors that influenced performance in CPA examinations conducted by KASNEB. The study aimed at achieving two main objectives namely;

- (i) To determine students' characteristics that influenced completion period of CPA examinations
- (ii) To determine factors that influenced a candidate's pass or failure in CPA Section Six (6) examinations.

Data were collected through a form from KASNEB records. To achieve the first objective, a sample of 190 candidates was selected from a population of 1,865 qualified accountants as at December 1996. For the purpose of achieving the second objective, data were collected from a sample of 112 candidates selected from candidates who were successful during the December 1995 and June 1996 CPA examinations. This sample was analyzed alongside a further sample of 146 candidates drawn from a total population

of 1,007 unsuccessful candidates for the same two CPA examination sittings.

Data were collected on “0” level mean grade, “O” level grade in English, Science, Mathematics, and a humanity subject, age, period after formal study, sex, mode of study (i.e. fulltime, part-time, correspondence and private), college attended, location, examination sittings, (i.e. continuous or non-continuous), employed, and academic attainment level.

These data were subjected to correlation, multiple regression, stepwise regression, multiple discriminant and step-wise discriminant analysis. Relevant findings and conclusions drawn from this study to the current research related to:-

(i) Mode of study

The importance of mode of study was captured strongly in Multiple Regression Analysis. This led to the conclusion that mode of study was a significant variable in influencing pass rates in CPA examinations.

Barasa (1997) argued that;

“ Candidates who study privately find more difficulties in passing the examinations. Those who enroll in colleges for tuition find it more easy to pass”.

Private, correspondence and part time mode of study had adverse effect on the performance as indicated by Analysis II (analysis involving determinants of passing CPA examinations). The above types of mode of study had a lengthening effect on CPA completion period. Full time mode of study had a significant positive effect in both pass rates and period of completion of CPA examinations. This led to the conclusion that all

modes of study other than full time (i.e. private, part-time and correspondence in order of adversity) had adverse effect on CPA performance.

In the words of Barasa (1997)

"Part time and correspondence modes of study that are features of candidates in employment do affect performance adversely. This therefore underscores the importance of candidates being fulltime students"

(ii) Colleges

Kenya College of Accountancy (KCA) featured as a college that made a difference in passing or not passing CPA examinations. All other colleges that enrolled finalist candidates namely DIMA and Strathmore did not influence the performance of candidates in CPA examinations.

The fact that KCA influenced performance and others did not, was a pointer to the relevance of institutional factors' influence on CPA examinations performance.

Equally applicable to the current study was the methodology employed by this study.

The current research aimed at using similar methodology as part of analyzing institutional factors' influence on CPA examinations performance.

2.5 Summary

The studies reviewed above provided evidence that institutional factors influenced performance in examinations. The studies reviewed too reveal conflicting observations, hence necessitating further research. In spite of having been conducted in USA, secondary school level of education, and in universities, these studies were quite relevant

as the main objective of the current research was to determine whether institutional factors affect performance in CPA examinations in the Kenyan scene. The only study conducted in Kenya in determining factors affecting CPA examinations pass rates by Barasa in 1997 established that the college a candidate studied in was relevant. However, it did not look into the institutional factors that were responsible for the above observation.

CHAPTER III

3.0 Research Design

3.1 The Population

The population of consideration in this research comprised of those colleges (both government and private) that have been engaged in training of CPA candidates. The list of colleges was obtained from Institute of Certified Public Accountants of Kenya (ICPAK).

This list was chosen because ICPAK had been holding training workshops for Heads of Accountancy Training Institutions. ICPAK would ordinarily invite all the colleges actively involved in training CPA candidates, as it is mandated by the constitution (Accountants Act (CAP 531)) to promote accountancy and finance in Kenya. CAP 531, part II, section 7b states the following as one of ICPAK's major functions;

“To promote research into the subjects of accounting and finance, and related matters, and the publications of books, periodicals, journals and articles in connection therewith”.

ICPAK too, through KCA has been actively involved in training of CPA candidates.

From the three workshops held in 1994, 1996 and 1998, the 1998 list of colleges was picked to provide information on the population as it was the most recent. The list comprised of 87 colleges.

This list was up-dated to include other colleges known to the researcher and were missing from the list of colleges provided by the institute. The additional colleges comprised numbers 88 to 96 of the list of colleges in the population of study in this research (see Appendix 1).

3.2 Sample and Sample Size

In drawing up the sample size for this study, the overriding considerations were:

- (i) the sample size had to be statistically significant. This is necessary for inference purposes about the whole population as far as the conclusion drawn from the sample is concerned. In this case sample size of more than thirty (30) colleges was necessary for the study was using t-test in the analysis.
- (ii) the location of the colleges to be included in the sample had to be accessible. For this reason the research had to identify those colleges where means of transport and communication were adequate so as to save on time and expenses.
- (iii) colleges from two closely related provinces were desirable for study so as to control for the possible effect on performance in CPA examinations arising out of diverse geographical differences.

With the above considerations, the distribution of the population of colleges was necessary. The distribution of colleges per province was as follows; Nairobi 30, Central;16, Rift valley;17, Western;10, Coast;5, Nyanza;9, North Eastern;1, and Eastern;8.

From the colleges population distribution, colleges located in Central and Nairobi provinces were selected as they met the desired criteria described above. These two provinces provided a sample of forty six (46) colleges representing 48.4 % of population. This sample was considered to be adequate to represent and yield satisfactory results for each of the institutional factors considered to affect the performance of a candidate in CPA examinations. The size of the sample was reduced to thirty six (36) colleges as ten

(10) colleges (marked with asterics in the population list) were not offering CPA courses to their students. A complete list of colleges in the sample and respective respondents is provided as appendix 2.

3.3 Data Collection Procedure

Both primary and secondary data were used for this study.

Primary Data

The primary data collection procedure involved

- (i) Listing telephone contact of each college
- (ii) Calling the respective colleges to book an appointment with the respondent(s).

The number of respondents interviewed in one college ranged from one to three depending on the size of the college. 11 colleges had three (3) respondents, 20 colleges had two (2) respondents, whereas 5 colleges had one (1) respondent.

The size of the college was a function of the number of courses offered in the same, such that a college that offered courses in other disciplines such as diploma in management and computer, had CPA courses being part of Business Department. In such a college there was a person heading CPA courses . This meant a complex organization structure and therefore before reaching the person directly involved in CPA courses, permission had to be sought from the senior officers in the college. It was for the above reason that the number of respondents interviewed in one college differed from another.

These respondents were; Heads of Business Department, Heads of Accountancy Courses, and/or Librarians. Simple organizational structure involved colleges that offered CPA courses only. In such colleges only one respondent was interviewed.

Once granted permission by the college's Principal, the researcher proceeded to the Business Studies Department. The Head of Business Studies Department responded to questions dealing with admission of students, teachers' qualifications and experience, teachers' remuneration and both teachers' and students' discipline. The Head of Accountancy courses responded to issues to do with students records, programme arrangements, and ways of improving training of accountants. The librarian on the other hand responded to issues to do with the library facilities namely, textbooks, videos tapes, pamphlets, and past papers.

To avoid spending a lot of time in one college, given that the respondents were quite busy, the researcher provided each of the three respondents with a separate questionnaire. The respondents would fill their parts independently. Once the researcher finished with the day's data collection exercise, he consolidated such responses in one questionnaire. The fully filled questionnaire formed part of analysis of such a college during data analysis and findings.

Secondary Data

These were obtained from KASNEB records as follows:-

From the student examination registration form (see appendix 3), the researcher obtained the following information about a candidate.

- (i) Name
- (ii) Registration number
- (iii) College attended
- (iv) Centre he/she sat the examination
- (v) Examination level

This information was recorded in a form as provided in appendix 4.

The above information about a candidate was used by the examination department in KASNEB to record the results the candidate obtained in CPA examinations, which was either Pass (P), Referred (R), Absent (A), or Fail (F).

This exercise provided secondary data needed in this research.

3.4 Data Description

Primary data were collected by the researcher using a questionnaire (see Appendix5). Personal interview was conducted in twenty five(25) colleges and drop- and - pick method of data collection was applied in eleven (11) colleges. Essentially the main purpose of the questionnaire was to gather data leading to college factors contributing to success in performance of students in CPA examinations. The data sought for in the

questionnaire included library, textbooks, videos tapes, reading materials, teachers' number, qualifications, motivation and discipline, number of weekly lessons, assignments, quizzes, continuous assessment tests (CAT), termly exams, discussions, revision sessions, and student discipline.

The following constituted the symbols for the collected data:

Table 3.1
Variable Description

V1	Library; present = 1, absent = 0
V2	Library sitting capacity
V3	Number of management text books
V4	Number of computer text books
V5	Number of statistics text books
V6	Number of accounting text books
V7	Number of company law text books
V8	Number of economics text books
V9	Video teaching aid; available = 1, absent = 0
V10	Past papers; available = 1, absent = 0
V11	Pamphlets; available = 1, absent = 0
V12	Notes and write-ups; available = 1, absent = 0
V13	Other teaching aid materials; available = 1, absent = 0
V15	College entrance examination selection criteria; administered = 1, absent = 0
V16	Number of teachers qualified with five years and above experience
V17	Number of teachers qualified as B.ED degree holders
V18	Number of teachers qualified as Diploma holders in management, education, and computer
V19	Number of teachers qualified as CPA(K)
V20	Number of teachers qualified as part CPA(K)
V21	Number of teachers qualified as other degree holders other than B.Ed
V22	Number of teachers qualified as Masters degree holders
V23	Number of subjects a teacher handles
V24	Number of weekly lessons
V25	Number of weekly assignments
V26	Number of weekly quizzes
V27	Number of revision sessions

V28	Number of termly exams
V29	Number of weekly tutorials
V30	Number of weekly class discussions
V31	Other benefits provided to teachers besides the pay; provided = 1, absent = 0
V32	Number of students disciplinary cases
V33	Number of teachers disciplinary cases
Y	Average score of a college in CPA examinations(%)

Key

- V - Independent variable
Y - Dependent variable

3.5 Data Conversion

The following variables were converted into ratios during the analysis. This conversion was necessary so that the data could be spared from the effect of absolute numbers and hence allow for a better comparison.

Percentage of teachers who were;

- (i) holders of Bachelor of Education (B,ed) degree.
- (ii) qualified as CPA(K)
- (iii) qualified as part CPA(K)
- (iv) holders of other degrees other than Bachelor of Education (B,ed)
- (iv) holders of master degree.
- (v) with five years experience or more.

Data on textbooks was refined to number of textbooks per student in a college.

3.6 Method of Analysis and Procedure

This study employed the following tools of analysis.

- (i) Descriptive statistics to determine mean, standard deviation, and range
- (ii) Backward Multiple Regression Analysis (Stepwise Regression)
- (iii) Factor analysis

3.7 Multiple Regression Analysis

This tool of analysis was chosen as the research was interested in establishing relationships between the predictor and criterion variables. The aim of the research was to predict and to correlate the variables that were deemed to significantly affect performance of CPA candidates in colleges.

The data collected were subjected to multiple regression analysis.

From the data collected numerical values and dummy values attached to each predictor variable (see appendix 6) were fitted to a general Multiple Regression equation of the nature.

$$Y = \alpha_0 + \beta_1 V_1 + \beta_2 V_2 + \dots + \beta_i V_i + \epsilon$$

Where: y is the dependent variable

α_0 is the constant

V_i is independent variable

β_i is the coefficient of V_i

ϵ is the error term

The research analyzed the relationship between the various independent variables and the dependent variables.

3.7.1 Hypotheses Testing

The research took a further step of testing hypotheses. In this study, t test was used to test the significant variables. Beta (b) is used to test the hypotheses. A level of significance of 0.05 was used in the hypotheses testing.

3.7.2 The Model Development

A model should have as many variables as possible in order to increase its predictive ability (Webster Allen (1992)) . However less significant variables should be ignored in model development since they overcrowd the model .Despite the fact that failure to include any useful explanatory variable detracts from the models' predictive ability, it is however important to include only those variables which offer a definite contribution to the models' explanatory power. Including variables of little values can reduce the adjusted coefficient of determination and contribute to the problem of multi-collineality. Any model should therefore be parsimonious (i.e. use as few variables as possible to achieve its level of explanatory power). To arrive at a parsimonious model, the research applied stepwise regression.

3.7.3 Stepwise Regression

This model was developed in stages which can take form of backward elimination.

These stages were:

- (i) calculating the entire model using all independent variables.
- (ii) t-values are computed for all coefficients.

- (iii) t-value closest to zero is eliminated and the model is calculated again. This continues until all the remaining beta are significantly different from zero.

The merit of regression analysis is that;

- (i) it provides estimates of criterion variable for given values of predictor variables.
- (ii) it provides measures of the errors which are likely to occur when using the regression line in determining the criterion variable.
- (iii) it provides estimates of how strong the relationship is between the variables.
- (iv) it facilitates the assessment of sensitivity analysis.
- (v) it can handle non-linear functions.
- (vi) it helps the analyst solve the difficulty of establishing what predictor variables to use in the analysis.
- (vii) it can accommodate a multiplicity of variables.

3.7.4 Comparing Regression Coefficients

The tendency to compare regression coefficients to determine which independent variable exerts more influence on criterion variable (Y) is dangerous and hence should be avoided (Webster Allen (1992)). This is because all variables are measured in totally dissimilar units. Again even if units of measurement were similar, factors other than a variable's coefficient, determine its total impact on Y.

To reduce these shortcomings in model I, the research measured the response of Y to changes in the standardized regression coefficients. Standard regression coefficients also called beta coefficients (not to be confused with the beta value β , which is the unknown

coefficient at the population level), reflect the change in the mean response of Y , measured in the number of standard deviations of Y , to changes in V_i , measured in the number of standard deviations of V_i . The intended effect of calculating beta values is to make the coefficients “dimensionless”.

These beta coefficients though standardized still suffer the same deficiencies as the normal coefficients, hence, it is generally considered poor practice to reflect the importance of a variable on the basis of its beta coefficients. This led to the choice of factor analysis which has the power to rank factors in order of their effect on criterion variable i.e. the performance of a college in CPA examinations.

3.8 Overview of Factor Analysis

Factor analysis is a generic name given to a class of techniques whose aim is to reduce data set to manageable level for analysis purpose (Nie (et al 1970)). The single most distinctive characteristic of factor analysis is its data reduction capability. Given an array of correlation coefficient for a set of variables, factor analysis helps the researcher to see whether some underlying pattern of relationships exists such that the data may be “re-arranged” or “reduced” to a smaller set of factors or components that may be taken as source variables accounting for the observed interrelation in the data.

In factor analysis;

- (i) the analyst is interested in examining the “strength” of the overall association among variables in the sense that one would like to account for this association in

terms of a smaller set of original variables that preserve most of the information of the full data set.

- (ii) no attempt is made to divide the variables into criterion versus predictor sets.
- (iii) the models are based on linear relationships.
- (iv) the models typically assume that the data is interval scaled, although it can also handle nominal and ordinal scaled data.

STEPS

Three steps involved are:

- (i) Preparation of the correlation matrix
- (ii) Extraction of the initial factors
- (iii) The rotation to a terminal solution.

The correlation matrix gives the inter-correlations between a set of variables. This is the basis on which the factors shall be generated. Once the correlation matrix has been calculated, the communality of each variable explained by the factors is found. Also calculated is the Eigen value i.e. the sum of squares of loadings of each factor. The initial factors are extracted through the “rule of the thumb” which is to extract that number of factors whose eigen values are greater than one.

Rotation is done to the initial factor matrix in order to arrive at the final solution. This is basically a process whereby the factors are re-arranged to arrive at derived solutions, a common method of orthogonal rotation known as the varimax procedure. The varimax

procedure tries to simplify the columns of the factor matrix by making all values close to either zero or one.

Factor analysis can also be useful in multiple regression and other analysis of dependent structures where the predictors are both numerous and highly correlated. If the predictors are first factor analyzed and the criterion variable is regressed on the full set of factor scores, R^2 will be identical to that obtained from the usual multiple regression analysis.

CHAPTER IV

4.0 Data Analysis and Findings

4.1 Introduction

Both the primary as well as the secondary data obtained were analyzed by use of:-

- (i) Descriptive Statistics
- (ii) Backward Multiple Regression
- (iii) Factor Analysis

4.2 Descriptive Statistics

Table 4.1

V	2	3	4	5	6	7	8	9	10	11	12	13	14	15
M	28	.58	.61	.5	.61	.58	.53	.06	1	.31	1	.83	1	11
S	42	.5	.49	.51	.49	.5	.51	.23	0	.47	0	.38	0	.32
R	20 0	1	1	1	1	1	1	1	0	1	0	1	0	1
%	-	58	61	50	61	58	53	06	100	31	100	83	100	.11

V	19	20	21	22	23	24	25	26	27	28	29	30	31	32
M	2	4	2.8	3.1	2.5	4.6	.9	.11	.8	.8	.61	.22	1.8	1.4
S	4	5	4	7.3	1.2	1.1	.6	.9	.5	.8	.7	.5	1.7	1.3
R	18	22	18	32	7	4	2	4	2	2	1	2	5	4
%	40	90	60	40	100	100	75	81	75	58	50	19	72	69

KEY

V - Variables
M - Mean

R - Range
S - Standard deviation

% - Percentage of colleges that had the variable described. For example 11% of Colleges administered a college entrance examination (V15) to potential students before admission.

The descriptive statistics as provided in table 4.1 provided the overall observation of a specific variable across the respondents/colleges. The row showing mean indicated on average how the presence of a particular variable is distributed across the respondents. Colleges on average had a library which accommodated 28 students at a single sitting. As far as the relevant textbooks per student was concerned, the observation was that on average colleges were similar, though V4 (computer) and V6 (accounting) were slightly higher than the rest i.e. V3 (Management), and V8 (economics). The variation again in these variables differed by very small margin.

All the colleges provide students with past papers, notes and strictly follow KASNEB requirements in admitting students. This was why variables past papers, notes, and KASNEB admission requirement showed a mean of one (1) and a standard deviation of zero (0).

The mean was quite low for video(V9) and pamphlets (V11)(ie.06% and 31% respectively), meaning that very few colleges used videos and pamphlets as teaching aid materials.

Although all the colleges strictly followed KASNEB criteria in selecting students, a few of them (11%) took an extra step by subjecting their potential students to an entrance examination in order to assess their capability in handling a professional course like CPA. This entrance examination was used to assess those student attributes that would positively influence performance in CPA examinations namely, accounting background, 'O' or 'A' level scores in mathematics, English, and aggregate grade in the same.

88% of colleges had teachers with five years experience and above, 72% of colleges had teachers who are holders of Bachelor of Education, 70% of colleges had teachers who are holders of Diploma in Management, 90% of colleges had teachers who are holders of part CPA(K), and 60% of colleges had teachers who were holders of other degrees other than Bachelor of Education. These high percentages indicated that teachers with the above qualifications were readily available. This, however, was in contrast to availability of teachers qualified as holders of CPA(K) and masters degrees. Only 20% and 40% of colleges had teachers qualified in these two areas respectively.

Each teacher/trainer handled more than two (2) subjects. Each subject was taught for more than four (4) lessons per week.

75% and 81% of colleges administered weekly assignments and quizzes respectively. Colleges however, administered only one weekly assignment and quiz per subject.

Revision sessions and termly exams averaged one (1) per semester, with most (i.e. above 50%) of the colleges having them in their program arrangements. The number of weekly tutorials also averaged one (1) per subject

Class discussions were only conducted in 19% of the colleges in the sample. The number of lessons set aside for class discussion averaged less than one (i.e. 0.22) per week. This meant that on average very little time was allocated to class discussions.

Teachers/trainers on average enjoyed extra benefits besides the pay and most of the colleges (i.e. 72%) provided their trainers/teachers with other benefits besides the pay.

As far as discipline was concerned, the data showed that on average each college experienced more than one (1) case of indiscipline on both students and teachers. Infact more than half (i.e. 50%) of the colleges experienced disciplinary cases.

The open -ended question in the questionnaire aimed at collecting views of respondents on issues that needed to be handled in order to improve performance in CPA examinations. Out of thirty six (36) colleges, 50% complained of lack of relevant textbooks especially in subjects such as computers. A similar percentage suggested that the CPA syllabus needed to guide students on the most relevant textbooks per topic as there existed no single textbook that could be used as a class textbook for a full subject.

Other issues raised included lack of teachers/trainers qualified as CPA(K) and even among the few available the turnover was very high hence disrupting learning. In fact 40% of the colleges complained of having to wait for almost two (2) months before getting qualified teachers in such subjects as Auditing and Investigations and Financial Accounting II and III.

65% of respondents complained that students joined their colleges after being rejected in other colleges. The concern was that one college was doing very well since it could afford to choose the best students as the enrollment in such a college was very high. Trainers in other colleges argued that this college attracted a lot of students partly due to low fee charged. This meant that such a college could select only the best students given the excess applications by students. Most (70%) of respondents argued that

students learned a lot from one another and hence if colleges were to have a mixture of both very bright and relatively low achievers, the former would assist the latter by way of class discussions.

Majority (85%) of respondents suggested that qualified accountants could assist in preparing learning materials especially if they engaged in publishing learning materials for CPA courses.

Trainers/teachers with master degree especially in Accounting and Finance was another area respondents were concerned with. The respondents complained of having very few trainers with this level of qualification. According to them trainers/teachers with master degree were very difficult to pay, leave alone to retain owing to attractive alternative opportunities outside teaching.

According to the respondents, master degree qualified trainers were important in the sense that they were well prepared in terms of subject content due to their superior academic exposure as compared to those without master degree qualification.

The results obtained by respective colleges in CPA examinations were given in appendix 7. These colleges are ranked in order of performance in CPA examinations beginning with best to the last. The ranking process involved grouping of colleges offering similar part(s) of CPA . Pass rates obtained by the colleges were used to rank the colleges in a given group.

A summary of overall college performance is provided in the table 4.2 below.

Table 4.2
Overall Performance in Colleges in percentages (December 1992-December 1997).

Sections	1	2	3	4	5	6	Overall
P	33.8	35.2	27.3	25.2	29.9	31.2	30.1
F	39.6	36.3	41.7	45.2	39.7	42.9	39.6
R	17.8	18.2	15.3	13.7	17.6	11.3	16.7
A	8.8	10.3	15.8	15.9	12.8	14.6	13.6

The pass rates became poorer as one moved to higher sections in CPA examinations. Most (72%) colleges had higher pass rates as compared to overall KASNEB pass rate in sections 1, and 2. However the pass rates were quite varied given that the pass rates ranged as follows; 51.8%,47%,54%,53%,42.8%, and 71.8% in sections 1,2,3,4,5, and 6 respectively.

A brief analysis of result showed that only five colleges offered CPA III i.e. Sections V & VI. These colleges were Strathmore, Vision Institute of Professionals (VIP), Kenya College of Accountancy (KCA), Dynamic Institute of Management and Accountancy (DIMA), and Kenya Institute of Administration (KIA). The percentage of colleges preparing CPA III candidates was only 11%.of the sample.

CPA II is offered by 7 colleges representing 20% of the sample. Again the pass rate in this part ranges from as low as 0% to 71%. This meant that performance was quite varied given the huge range of pass rates.

The overall average pass rate was better in December than in June. This could be established from Appendix 9.A possible explanation for this scenario was that most students preferred to prepare for CPA examination for one year, and would only enroll for June paper to assess their strength in terms of preparation for the same. Government colleges were arranging their training on termly basis where students were taught just like the normal school system, meaning that student would only take examinations at the end of the year. This was only changed last year when government colleges adopted semesters in which case students were taught for 2-four months semesters beginning January to April, and July to October leaving May and November months for revision for June and December examinations respectively. The adoption of semester system was necessitated partly due to pressure from students who preferred to prepare for the examinations like their counterparts in private colleges. Students in government run colleges also wanted to complete CPA examinations faster hence their demand for semester courses.

Since the study covered the period ranging from 1992 to 1997 when students in government colleges used to prepare for one year, then this was a possible reason for December examinations pass rate being superior as compared to June.

The average overall performance for the last five years in CPA examinations was provided in table 4.3 below. These overall percentages were computed from data on performance in CPA examinations as provided by KASNEB.

Table 4.3

Overall Average National Performance in CPA Examinations in the Period December 1992-1997

P	21.86						
F	56.38						
R	12.78						
A	8.98						

Key

P - PASS F - FAIL R - REFERRED A - ABSENT

A close comparison of table 4.2 and 4.3 revealed that the overall performance in sampled colleges was better than the general overall performance.

Overall performance in CPA examinations was illustrated graphically (see appendix 9), to assess the trend for the last five years. The graph was drawn from the data on the overall column on appendix 8.

The qualification and experience of teachers in these colleges were grouped as given in appendix 10. From appendix 10 the percentage composition of teachers/trainers in terms of qualification in these colleges, was provided as follows:

Trainer's with five years experience and above	25.8%	of total
Bachelor of Education (B.ED) degree holders	16.03%	“
Diploma holders in Education, Management & Computer	6.04%	“

CPA(K) holders.	9.4%	“
Part CPA(K) holders	18.2%	“
Other degree holders other than Bachelor of Education	12.4%	“
Master degree holders	12.08%	“

4.3 Hypotheses Testing

The research took a further step of testing hypotheses as outlined in chapter I. Both primary data gathered through a questionnaire (Appendix 6) as well as secondary data gathered through a form (Appendix 4) were analyzed using a Backward Multi-Linear Regression analysis approach. For the purpose of this research, a Software Programme for Social Sciences (SPSS) computer package was used to calculate the values of beta and t, together with the model to predict the result of a certain college in CPA examinations .

4.3.1. The Decision Rule

If the computed t value lies outside the statistical value given ± 2.03 the null hypothesis is rejected. Otherwise we fail to reject H_0 .

The output is provided in Appendix 12

4.3.2 Statistical Decision

From the computer output given in appendix 12. which only reveals the optimal output obtained through Backward Multi-Linear Regression, the most significant variables that influenced performance of students training for CPA in KASNEB examinations in a

specific college were computer textbooks, college entrance examination selection criteria, experienced teachers, B.ed trained teachers, diploma trained teachers, master degree holders, number of subjects a teacher handles, number of weekly quizzes administered per subject and students' discipline.

The research did not consider a model with all variables revealed in literature, rather it used the most significant ones as revealed in appendix 12.

This model could have been developed manually using the normal equation of the format:

$$Y = \alpha_1 + \beta_1 V_1$$

Where: α_1 is a constant of each variable

V_1 is the value of independent variable

β_1 is the coefficient of V_1

The model that considered data as it were was as follows.

$$Y = 37.88 + 12.3v_4 + 17.7v_{15} + 1.85v_{16} - 1.14v_{17} - 6.21v_{18} - 1.19v_{22} - 2.34v_{23} + 6.14v_{26} - 5.81v_{32} \dots\dots\dots\text{model (I)}$$

This model (I) used data as it was collected and recorded i.e. without being standardized.

This model (I) used values in the column under the heading(B) in the output in appendix 12.

Model (II) was developed by use of standardized data to minimize weaknesses associated with use of un-standardized data. Once data are exposed to a Software Programme for Social Sciences (SPSS) computer package, they are standardized automatically. The

output provided through SPSS, will contain coefficients from both unstandardized data (i.e. B) and standardized data(i.e, Beta). This model (II) used values in the column under the heading (Beta) in the output in appendix 12.

$$Y = 37.88 + 0.35V_4 + 0.33V_{15} + 0.87V_{16} - 0.42V_{17} - 0.55V_{18} - 0.5V_{22} - 0.16V_{23} + 0.32V_{26} - 0.44V_{32} \dots \dots \dots \text{model (II)}$$

From the two models, Computer text books, College entrance examination selection criteria, teachers experience of five years and above, and number of weekly quizzes positively correlated with performance in CPA examination. However, the following variables negatively correlated with performance of a college in CPA examinations namely, teachers' qualifications as B.ed degree holders, diploma holders, and master degree holders, number of subjects a teacher handles and students' discipline.

Model (I) accounted for 85.023% whereas model II accounted for 79.8% of college performance in CPA examinations. The model so used/preferred was model (II), as it was developed using standardized data, meaning the effect of extreme variables as well as differences in variable measurement were minimized.

4.3.3 Model Validation

Having screened the variables that do not predict significantly, (by use of Backward Multiple Regression), the performance of students in specific colleges in CPA examinations, the optimal model (model II) with only nine (9) variables was then

validated. The nine (9) variables were computer textbooks, college entrance examination teachers' experience of five years and above, teachers' qualifications namely, B.ed degree holders, diploma holders and master degree holders; number of subjects a teacher handles, number of weekly quizzes, and students' discipline. The co-efficient of determination (R^2) in model (II) was 79.8%. This meant that these nine (9) variables considered most significant explained 79.8% of a college's performance in CPA examinations.

Professional qualifications as Bachelor of Education (B.ED) degree holders, Diploma holders in Education or Management and Master degree holders were negatively correlated with performance. This could be explained by the fact that the syllabus used to prepare the above qualifications is quite different from the CPA one. CPA is a professional area, distinct in character from the above qualifications. Areas that however interact in the two disciplines are quite few and negligible to prepare one to handle CPA syllabus adequately as a teacher. This would mean that besides the above qualifications one would have to pass CPA examinations first before venturing to teach the same.

4.4 Factor Analysis

4.4.1. Correlation Matrix

The correlation matrix developed using SPSS computer package comprised of thirty (30) variables after three (3) variables were disqualified owing to having zero correlation with one another. These three variables were past papers, notes, and KASNEB admission requirement criteria. As can be observed from data (appendix 6,) these three variables

were the same in all the respondents. i.e. there's no variation in the observations.

The correlation matrix (appendix II) was the principal component analysis. It was through it that the factors were extracted. A look at the correlation matrix, revealed that the following pair of variables have a high positive correlation:- textbooks in management and computer, management and statistics, company law and management, accounting and computer, economics and management, company law and computer, company law and statistics, economics and statistics, and company law and accounting; number of teachers qualified as CPA(K) and experience; other degree holders other than Bachelor of Education and CPA(K) qualifications. The following variables negatively correlated with one another; number of revision sessions per subject and students discipline; teachers discipline and number of revision sessions per subject ; students discipline and number of weekly lessons per subject ; teachers discipline and number of weekly lessons per subject; and students discipline and statistics textbooks. It is on this basis of correlation that factors influencing a certain activity (performance of a college in CPA examinations) were generated.

The output of variable, communality and eigen values is provided in appendix 13 . The communality gives the percentage of each variable explained by the factor. In this study, the variables were significant in each factor as all commonalities were 1. There were 7 eigen values greater than one, thus 7 factors were extracted to explain college performance in CPA examinations.

As earlier discussed the communality gives the percentage of each variable explained by the seven factors identified. Communality explains the percentage of data regarding a variable, that is incorporated in the factors identified as significant in the study. The remaining percentage of the variable is usually incorporated in the insignificant factors (ie factors whose eigen values are less than 1), hence ignored.

In this particular study it was found that 92.77% of experienced teachers, 92.588% of B.ed degree qualified teachers, 91.13% of CPA(K)qualified teachers, 89.86% of teaching aid materials, 87.39% of video tapes, or 88.2% of statistics textbooks was incorporated in the seven institutional factors identified and ranked as significantly influencing performance in CPA examinations. On the other hand, number of subjects a teacher handled and termly exams, did not contribute much to the factors.

The Appendix 14 also provided the eigen values, which is the sum of squares of loadings of each factor. Essentially it is a measure of the variance of each factor. In this study, factor 1 explained 34.0% of the total variation, factor 2 explained 17.3% of the total variation and so on up to factor 7 which explained 3.6% of the total variation, hence the seven factors identified and ranked explained a total of 79.8% of performance of a college in CPA examinations.

Appendix 15 provided the initial factor matrix, which provided the loading of a variable on a factor i.e. the correlation between a variable and the factor. Variables having significant loading on factor 1 were library, weekly lessons, CPA(K) qualified teachers,

textbooks in statistics, computer, accounting and economics. Factor 2 was heavily loaded by availability of video teaching aid, textbooks in management, accounting and computer; master degree qualified and experienced teachers. College entrance examination selection criteria and weekly assignments heavily loaded factor 3. Factor 4 was heavily loaded by teaching aid materials, teachers and students discipline. Other benefits to teachers besides the pay, weekly quizzes, and Bachelor of Education (B.ed) degree qualified teachers loaded heavily on factors 5, 6 and 7 respectively.

Appendix 16 provided the final varimax rotated factor matrix. This is an orthogonal procedure. It tends to produce high loadings and some near-zero loadings on each factor. The varimax technique leads to a new set of uncorrelated axes, keeping the sum of squared loadings for each row of the factor-loading matrix intact. Essentially this table gives the final solution to factors being developed.

As can be inferred from this matrix, textbooks in computer, accounting, management, company law, statistics, and economics heavily loaded on factor 1. Factor 2 was heavily loaded by teachers experience, teachers' qualification as CPA(K) holder, part CPA holder, other degree holders other than B.ed, master degree holders and diploma holders. College entrance examination selection criteria, weekly tutorials, and video teaching aid heavily loaded factor 3.

Students and teachers' discipline, and revision sessions heavily loaded factor 4. Factor 5 was heavily loaded by availability of pamphlets whereas other teachers benefits besides

the pay and class discussions; and B.ed qualified teachers and weekly quizzes heavily loaded factors 6 and 7 respectively.

From appendix 16, a summary of factors that influenced performance of students in specific colleges is drawn. These factors were arranged in the order of their influence on college pass rates in CPA examinations from the most to the least influential as provided below:-

Factor 1 was made up of the following variables

- (i) Number of text books in computer per student
- (ii) Number of text books in accounting per student
- (iii) Number of text books in management per student
- (iv) Number of text books in company law per student
- (v) Number of text books in statistics per student
- (vi) Number of text books in economics per student

Factor 2 was made up of the following variables.

- (i) Percentage of teachers/trainers with five years experience and above
- (ii) Percentage of teachers/trainers with CPA(K)
- (iii) Percentage of teachers/trainers with Part CPA(K)
- (iv) Percentage of teachers/trainers who were holders of other degrees other than B.ed
- (v) Percentage of teachers/trainers who were holders of master degree.

- (vi) Percentage of teachers/trainers who were holders of diploma in management, computer, and education.

Factor 3 was made up of the following variables

- (i) Entrance examination administered to students during enrollment
- (ii) Availability of video teaching aids facilities
- (iii) Number of weekly tutorials per subject

Factor 4 was made up of the following variables:-

- (i) Number of revision sessions before examinations per student
- (ii) Number of indiscipline cases in students
- (iii) Number of indiscipline cases in teachers/trainers

Factor 5 was made up of availability of pamphlets as teaching aid facilities

Factor 6 was made up of the following variables:-

- (i) Number of other benefits besides the pay (motivating items) to teachers/trainers.
- (ii) Number of weekly class discussions per subject

Factor 7 was made up of the following variables

- (i) Number of teachers/trainers with professional training as teachers i.e. B.Ed holders
- (ii) Number of weekly quizzes per week administered per subject.

Factor analysis can also be useful in Multiple Regression and other analysis of dependent

relationships, where the predictors are both numerous and highly correlated. If the predictors are first factor analyzed and the criterion variable is regressed on the full set of factor scores, R^2 will be identical to that obtained from the usual multiple regression analysis. Therefore the cumulated explained variance of 79.8% in appendix 14, was the same as adjusted R^2 in appendix 12 which signified the extent to which the identified factors (or independent variables) explained the (dependent variable) performance of a college in CPA examinations.

CHAPTER V

5.0 Conclusions and Recommendations

5.1 Conclusions

Based on the results and findings of the analysis carried out, a number of conclusions were made from the present research.

In spite of colleges strictly adhering to KASNEB syllabus while preparing CPA candidates, majority of them performed poorly in examinations. This was because half (50%) of the colleges studied recorded a pass rate less than the average overall college pass rate of 30%. This poor performance was supported by the high failure rate, which averaged 39.6% across colleges. The study recorded a high percentage of referrals(16.7%). This further compounded the poor performance in the sense that referred performance is also a reflection of difficulties in passing CPA examinations. All in all performance in CPA examinations was concluded to be poor given the low overall pass rates obtained by colleges.

A second conclusion was that most (67%) colleges prepare students for CPA 1 examinations only. This was partly a result of many impediments on the colleges side which included lack of qualified teachers/trainers, and text books. Teachers/trainers for higher sections in CPA courses were not only few but too expensive to hire and retain. This was more so for those colleges outside Nairobi as most of the qualified teachers/trainers were in Nairobi.

The general performance of CPA candidates in colleges was slightly better than the

performance in overall KASNEB examinations. This meant that CPA candidates preparing for KASNEB examinations in colleges improved their chances of passing as compared to privately preparing students. This is consistent with Barasa (1997) study.

The study also established that there was deficiency in teachers/trainers who were fully qualified as CPA(K) holders. This explained the fact that very few colleges trained CPA III candidates.

From the Backward Multiple Regression Analysis, the performance of college in CPA KASNEB examinations was positively significantly influenced by the following variables:-

- (i) Ability to select students joining a college by use of a college entrance examination. This was the case as the college assessed the capability of an individual candidate in CPA courses. This allowed for only the best potential students being selected.
- (ii) The experience of the teachers/trainers. This was because experience improved mastery of subject content as well as sharpening of ability of the trainer/teacher to prepare students psychologically on what to expect in CPA KASNEB examinations.
- (iii) The accessibility of students to computer books. Students with computer

textbooks were better prepared for CPA examinations.

- (iv) Number of weekly quizzes/Continuous Assessment Tests (CATs), done by students in a college.

The following variables negatively correlated with performance in CPA KASNEB examinations of students in a specific college:-

- (i) Number of teachers/trainers with diploma qualification. This was the case since CPA being a professional course demanded teacher/trainers with higher qualification.
- (ii) Number of teachers/trainers with master degree qualification and above all, indiscipline on students side. Master degree qualification usually prepares an individual for academic work, which though relevant to CPA was not entirely useful. Therefore a trainer who had only master degree qualifications would find it difficult to effectively handle CPA syllabus. Such a teacher/trainer need to first qualify in CPA examinations so as to be competent in the same. Students whose discipline was questionable did not take their studies seriously and hence their poor performance in CPA examinations.
- (iii) The number of subjects a teacher/trainer handled. This would mean more workload which did not provide adequate time for teacher's preparation. It was even a greater risk if a college entrusted more subjects to one teacher/trainer given such problems as sickness, incompetence, etc.

The contribution in a college performance was also a function of other factors not captured in this research, given that the predictive model (II) so developed predicted 79.8%, of performance in a certain college in CPA examinations, leaving 20.2% unexplained.

It was also concluded that the performance of CPA candidates in colleges was a product of the following factors. This was provided by "Factor Analysis" result.

The leading factor (i.e. factor 1) which explained 34.0% was made up of availability and accessibility of textbooks to students in the following areas; computer, accounting, management, company law, statistics and Economics.

Factor 2, which accounted for 17.3% comprised of teachers' qualification and experience. Factor 3, which accounted for 8.4% comprised of entrance examination administered to students during admission, availability of video teaching aid facilities, and number of weekly tutorials.

Factor 4 explained 7.0% which was a product of revision sessions, indiscipline on both students and teachers/trainers.

Factor 5 accounted for 5.2% and was made up of teaching aid material in form of pamphlets and weekly assignments.

Teachers/trainers motivation accounted for 4.3% of the performance and finally factor 7, which accounted for 3.6% comprised of professional training qualification of teachers/trainers as B.ed holders and weekly quizzes per subject.

A more consolidated look at the institutional factors responsible for performance was as follows.

Factor 1 had to do with text books, factor 2 being qualification of teachers/trainers, factor 3 was the calibre of students selected in a college, factor 4 being programme arrangements as well as discipline and finally there was teaching aid material and teachers motivation coming last.

5.2 Recommendations

The recommendations of this research were based on the findings. The research recommends the following;

- (i) When the ministry of technical training and applied technology receives an application to begin a college to prepare CPA candidates, greater emphasis should be on checking the accessibility of students to text books, teachers/trainers qualification and discipline. The ministry should further have regular and routine checks to make sure that colleges lived up to this goal. This is one of the ways in which the number of professional accountants could be increased to meet the economy's demand.
- (ii) More teachers/trainers should strive to qualify as CPA(K) and those in practice could take up the challenge to provide services to these colleges in the evenings.

- (iii) Students joining colleges should be screened to establish their capability in handling CPA examinations. Perhaps before KASNEB enrolls students it should subject them to an entrance examination besides the minimum qualification criteria based on form four results.
- (iv) Students joining CPA colleges should assess availability of text books and teachers' qualification before enrolling in such colleges.
- (v) Teachers/trainers should be motivated in order to improve their effort in preparation of CPA candidates.
- (vi) Colleges should also maintain proper records of their students. This would make it easier to monitor the performance of their students. KASNEB is willing to provide any information sought hence colleges could benefit a lot if only they kept proper records concerning student name, KASNEB number and the centre where the student sit his/her examinations. This had been quite easy with the following colleges; Strathmore, Vision Institute of Professionals (VIP) and Kenya College of Accountancy (KCA).

5.3 Limitations of Study

This research should be read with the following limitations in mind. These include:

- (i) Most of the colleges hardly maintained proper records concerning the information sought, with the most vital information missing being that of students' KASNEB registration number. This of course meant that the researcher could not get reliable information on results analysis of a college performance from college records.

- (ii) The answers, the respondents, provided especially on the open- ended question looked alike. This was an indication that there was bias in the information provided. This was the case because this study came when the respondents had just attended a workshop organized by ICPAK in February 1998. What was deliberated during the workshop on ways of improving CPA Pass rates was quite fresh in the respondents minds, hence the similarity in responses.
- (iii) The colleges being selected from only two provinces which are geographically closely related, meant that the research may have missed unique characteristics of colleges in other provinces. This meant the conclusions drawn may not be applicable to colleges different from those on which this research was based
- (iv) The literature available in this area was not very explicit and therefore some factors may have been omitted in the research. This was because no research had previously been conducted in this area in Kenya. Most of the institutional variables considered in this research emanated from other sources outside the literature available i.e. opinions from faculty board members, researcher's supervisors and college owners.
- (v) The research did not measure the effect of students movement among the colleges. The current performance of a college could be a reflection of earlier preparation of students in other colleges.
- (vi) The research did not measure the possible effect of some lecturers teaching in different colleges on part-time basis. The performance of two or more colleges could be similar given this scenario. The effect of this was however not measured as colleges could not disclose identity of their lecturers.

- (vii) The research findings did not reflect possible effect of those colleges that have been in existence for less than five years. The number of colleges in this category was three. This, however, was ignored given that the significant use of research is futuristic.

5.4 Suggestions for further research

Research in this area can be done to assess the following issues:-

- i) Splitting performance in terms of specific subject against the relevant variables.
- ii) The issue of personal effort in the student preparations besides the college contribution.
- iii) Picking a census for the country. This would make ranking of colleges complete. Such a study would also incorporate the effect of geographical differences in college location in its conclusions.
- iv) The effect of part-time lecturers who teach in more than one colleges on CPA performance.

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Appendix I Population of Colleges in the Research

	COLLEGE	ADDRESS	TEL. NO
1	Thika Technical	Box 91 Thika	21931, Thika
2	Kimathi	Box 657 Nyeri	4005, 4616, Nyeri
3	Siaya Institute	Box Siaya	21299, Siaya
4	Maasai Technical	Box 125 Kajiado	N/A
5	Friends College	Box 150 Tiriki	64, Tiriki
6	Kenya Institute of Administration	Box 2303 Nairobi	582311, Nairobi
7	Ramogi Institute	Box 1738 Kisumu	62044, Kisumu
8	Kenya Technical Teachers	Box 44600 Nairobi	520211-5, Nairobi
9	University of Nairobi	Box 30197 Nairobi	334244, Nairobi
10	BTC Kenyatta University	Box 43844 Nairobi	810901, Nairobi
11	Bumbe TTC	Box 70 Sio Port	63020, Sio Port
12	Kisumu TTI	Box 143 Kisumu	40161, Kisumu
13	Kabete TTI	Box 29010 Nairobi	631791, Nairobi
14	Mathenge Institute*	Box 66 Othaya	52975, Nyeri
15	Railway Training Institute	Box 4225 Nairobi	556311, Nairobi
16	Nyeri Technical	Box 465 Nyeri	2330, Nyeri
17	Western College (WEKO)	Box 190 Kakamega	N/A
18	KCCT	Box 30305 Nairobi	891201, Nairobi
19	Sang'alo Institute	Box 158 Bungoma	20322, Bungoma
20	Kangema TTI	Box 4 Kangema	56831, Murang'a
21	Kaiboi TT	Box 937 Eldoret	33402, Eldoret
22	DDI-Embu	Box 402 Embu	20364, Embu
23	Jeb Technical		N/A
24	Kitale Technical	Box 2162 Kitale	20420, Kitale
25	Government Training Institute	Box 83256 Mombasa	311594, Mombasa
26	Mombasa Polytechnic	Box 90420 Mombasa	492223, Mombasa
27	Coast Institute	Box 34 Voi	2024, Voi
28	Murang'a Institute	Box 75 Murang'a	22760, Murang'a
29	Kiambu Institute*	Box 414 Kiambu	22236, Kiambu
30	Ruiru Technical*	Box 189 Ruiru	30494, Ruiru
31	Rift Valley Technical	Box 244 Eldoret	211974, Eldoret
32	NEP TTI	Box 329 Garissa	N/A

33	Starehe Boys Centre	Box 30178 Nairobi	761221, Nairobi
34	Nkabune TTI		20676, Meru
35	Meru College of Technology	Box 111 Meru	66045, Meru
36	Kinyanjui Technical	Box 22180 Nairobi	560485, Nairobi
37	Bungoma College of Technology	Box 2105	20464, Bungoma
38	Sigalagala TTI	Private Bag Kakamega	41010, Kakamega
39	Eldoret Polytechnic	Box 4461 Eldoret	32661/64, Eldoret
40	Kirinyaga TI*	Box 143 Kerugoya	21175, Kerugoya
41	Kericho TI	Box 438 Kericho	32148, Kericho
42	Korisi Technical School	Box 833 Kisii	20475, Kisii
43	Mutomo Technical Centre	Box 147 Mutomo	36, Mutomo
44	Rwika Technical	Box 1264 Embu	25 , Gachoka
45	Baringo Development Institute	Box 91 Kabarnet	22056, Kabarnet
46	Nairobi TTI*	Box 30039 Nairobi	764863, Nairobi
47	Kenya Polytechnic	Box 52428 Nairobi	338231, Nairobi
48	Moi University	Box 3900 Eldoret	43001, Eldoret
49	Mawengo TTI	Box 5919Kendu Bay	28, Kendy Bay
50	Ol'lessos TTI		N/A
51	Kisumu Polytechnic	Box 143 Kisumu	40161, Kisumu
52	Machakos TTI	Box 136 Machakos	21604, Machakos
53	Gusii Institute of Technology	Box 222 Kisii	31271, Kisii
54	Ukamba Agricultural Institute	Box 459 Kitui	48, Kivunga
55	Moi Institute of Technology	231 Suna	42087, Suna
56	Jogoo Commercial College	Box 830 Nakuru	210177, Nakuru
57	Elgon View Commercial College	Box 2340 Eldoret	33620, Eldoret
58	Kenyan College	Box 30335 Nairobi	224176, Nairobi
59	Kenya College of Accountancy	Box 56808 Nairobi	748763, Nairobi
60	Kisumu College of Accountancy e	Box 1190 Kisumu	N/A
61	Universal College	Box 30240 Nairobi	330891, Nairobi
62	Technical Institute*	Box 43545 Nairobi	248549, Nairobi
63	KSPS	Box 60550 Nairobi	750255, Nairobi
64	Guthiha Commercial College*	Box 551 Githunguri	51245, Karura
65	USIU-A	Box 14634 Nairobi	802532, Nairobi
66	University of East Africa –Baraton	Box 2500 Eldoret	2625, Kapsabet
67	Strathmore	Box 59857 Nairobi	606155, Nairobi

68	DIMA	Box 48379 Nairobi	224815, Nairobi
69	VIP	Box 71686 Nairobi	243117, Nairobi
70	Pioneer Commercial College	Box 83256 Mombasa	223337, Mombasa
71	St. Teresa's Community Centre	Box 42603 Nairobi	760183, Nairobi
72	Nyanchwa College	Box 1020 Kisii	26324, Kisii
73	Luhanda College	Box 1882 Bungoma	N/A
74	Flamingo College	Box 9618 Nakuru	86314, Nakuru
75	Christian Industrial Training centre	Box 72935 Nairobi	762484, Nairobi
76	Faith Technical College	Box 991 Kisumu	44734, Kisumu
77	Mumias Commercial College		41410, Mumias
78	Superior Commercial College	Box 1286 Nyeri	2085, Nyeri
79	Tertiary College	Box 1834 Meru	20022, Meru
80	Graffins College	Box 13800 Nairobi	743339, Nairobi
81	Woodvale College	Box 48705 Nairobi	220539, Nairobi
82	Gatimu and Associates College	Box 485 Nyeri	2843, Nyeri
83	Oshwal College*	Box 44691 Nairobi	748005, Nairobi
84	New Era School	Box 31002 Nairobi	220127, Nairobi
85	Daystar University	Box 44400 Nairobi	723002, Nairobi
86	Catholic University of East Africa	Box 24205 Nairobi	891601, Nairobi
87	Splinter Commercial College		447954, Mombasa
88	Rifkin's Business College		226053, Mombasa
89	Profesco		242568, Nairobi
90	CABS		225256, Nairobi
91	Karatina College of Accountancy	Box 1140 Karatina	71890, Nyeri
92	Nyeri School of Accountancy		4960, Nyeri
93	Sterling Business School	Box 54362 Nairobi	783663, Nairobi
94	Ebenezer Commercial College	Box 1017 Kerugoya	44091, Kerugoya
95	Githunguri Commercial College	321 Githunguri	52418, Karuri
96	Kenya School of Monetary Studies*	-	861177, Nairobi

Key

*Colleges located within the sample area not offering CPA syllabus.

LIST OF COLLEGES COMPRISING THE SAMPLE AND RESPONDENTS

College	Respondent(s)
1. Thika Technical	Mr. Mwongela, Kamau & Acholi
2. Kimathi Institute of Technology	Mr. Iteki, Kagiandi & Muturi
3. Kenya Institute of Administration (KIA)	Mr. Muronge & Mr. Kariuki
4. Kenya Technical Teachers	Mr Mbua, Mrs. Mburu & Karanja
5. University of Nairobi	Mr. Barasa & Mr. Munge
6. Railway Training Institute	Mr. Kiseu & Mr. Kariuki
7. Nyeri Technical	Mrs. Mbugua, Kimiti & Kamanja
8. B.T.C. Kenyatta University	Mr. Chege & Orina
9. Kabete T.T.I	Ms. Charity, Mr. Wafula
10. Kenya College of Communications & Technology (KCCT)	Mrs. Ng'eno, Mr. Karanja & Pa
11. Kangema T.T.I.	Mr. Kamau & Mrs. Kinyanjui
12. Murang'a College of Technology	Mr. Elias Kihara, Mwaniki & Oke
13. Starehe Boys Centre	Mr. Okono & Dr. Griffin
14. Kinyanjui Technical	Mr. Kinoti, Gitau & Makau
15. Kenya Polytechnic	Mr. Mugo, Pere & Achola
16. Kenyan College	Mr. Edwin Ochami
17. Kenya College of Accountancy (KCA)	Mrs. Rosemary Maina
18. Universal College	Mr. Rawal, Mazula
19. Kenya School of Professional Studies (SPS)	Ms. Mungai & Mr. Odutu
20. Strathmore	Mr. Mcfie, Sotz & Mbugua
21. Dynamic Institute of Management & Accountancy (DIMA)	Mr. Mundia & Njue
22. Vision Institute of Professionals (VIP)	Mr. Esajee & Chirchir
23. St. Teresa's Community Centre	Mr. Onuong'a
24. Christian Industrial Training Centre	Sis. Justine, Mr. Waweru
25. Superior Commercial College	Mr. Patrick & Francis
26. Devonshire College of Accountancy	Mr. Otieno & Oketch
27. Woodvale College	Philips & Augusta
28. New Era School	Mr. Ndambuki, Mrs. Ali
29. Profesco	Mr. N.T.T. Simiyu
30. College of Accountancy & Business Studies (CABS)	Mr. Erastus S.B. & Owiti
31. Karatina College of Accountancy	Mr. Muthura & Kimani
32. Nyeri School of Accountancy	Mrs. Kimani, Wang'ombe, & Munube
33. Sterling Business School	Mr. Wachira & Faith
34. Githunguri Commercial College	Mr. Muchai
35. Ebenezer College	Mr. Njagi and Kinyua
36. Gatimu & Associates	Mr. Gatimu, Njeru & Nyaga

KENYA ACCOUNTANTS AND SECRETARIES NATIONAL EXAMINATIONS BOARD
 P.O. BOX 41362, NAIROBI

**CERTIFIED PUBLIC ACCOUNTANTS
 EXAMINATION ENTRY FORM**

Before completing this form please read it carefully in conjunction with the notes on the back of this page and the Examination Rules and Guide to CPA Examination

PERSONAL DETAILS:

Your Registration Number



ENTER YOUR REGISTRATION NO. HERE

NAME: _____
(LAST NAME) (FIRST NAME) MIDDLE NAME(S) (See Note 1a)

Mailing Address: _____
PERMANENT ADDRESS CURRENT ADDRESS

PO Box _____

Town/City _____

Country: _____ (See note 1b)

a) I wish to enter for CPA Examination to be held in _____ MONTH _____ YEAR

b) My examination Stream is: (tick whichever is applicable)

COMMERCIAL CO-OPERATIVE CENTRAL GOVERNMENT LOCAL GOVERNMENT

c) I hereby enter for the following subjects in my stream. (tick the appropriate subjects in section three as applicable).

CPA PART I		CPA PART II		CPA PART III	
SUBJECT CODE	SECTION 1	SUBJECT CODE	SECTION 3 (tick subjects according to your stream)	SUBJECT CODE	SECTION 5
A11	1. Financial Accounting I	A31	7. Systems Theory Analysis and Design	A51	13. Principles and Practice of Management
A12	2. Law I	A32	8. a) Financial Accounting II OR	A52	14. Management Accounting
A13	3. Economics	A33	b) Co-operative Accounting OR	A53	15. Taxation II
		A34	c) Central Government Accounting OR		
		A35	d) Local Government Accounting		
		A36	9. a) Business Finance OR		
		A37	b) Co-operative Finance and Management OR		
		A38	c) Central Government Finance and Management OR		
		A39	d) Local Government Finance and Management		
SUBJECT CODE	SECTION 2	SUBJECT CODE	SECTION 4	SUBJECT CODE	SECTION 6
A21	4. Taxation I	A41	10. Financial Accounting III	A61	16. Financial Accounting IV
A22	5. Cost Accounting	A42	11. Quantitative Techniques	A62	17. Auditing & Investigations
A23	6. Auditing	A43	12. Law II	A63	18. Financial Management

d) Record of relevant Examination Passed: (Where Applicable).

SECTION 1 2 3 4 5 6

MONTH/YEAR:

Preferred Examination Centre _____ (See note 2)

Please print your name & address clearly within the rectangle below in CAPITAL LETTERS.

(See note 3)

Appendix 4

Structure For Collecting Result of Students From KASNEB Records

KASNEB REG. NO.	EXAM CENTRE	SECTION					
		1	2	3	4	5	6

QUESTIONNAIRE

Dear Sir,

RE: RESEARCH INFORMATION

I am Mr. GICHOBI, P.J., an MBA student from the University of Nairobi. As a partial requirement for an MBA degree course I am conducting research on "Performance Evaluation on Colleges Engaged in Teaching/Training Students Taking CPA Examinations".

To accomplish this mission, I need information. Your college has been selected to form the sample and you are therefore requested to provide the information requested as per the questionnaire. The information so provided is exclusively used for research.

Yours faithfully,

GICHOBI, P.J.

QUESTIONNAIRE

1. (a) Do you have a library? _____
 - (b) If Yes,
 - (i) How many students can it accommodate at a single sitting? _____
 - (ii) How many text books do you have in the following areas?

(a) Management _____	(b) Accounting _____
(c) Business _____	(d) Company Law _____
(e) Statistics _____	(f) Economics _____
 - (iii) Any other teaching aid material available in the library, e.g.

(a) Video _____	(b) Pamphlets _____
(b) Past papers _____	(d) Notes/write ups _____
(e) Others (Specify) _____	
 - (iv) Where do students consult with teachers?

-
2. Do you have a student's selection criteria? _____
 - If Yes,
 - (i) Do you follow strictly KASNEB requirements? _____
 - (ii) Do you have entrance examinations? _____

3. Provide list of students for the last 10 examination sittings
i.e. between December 1992 and December 1997.
4. (a) How many teachers are required in your college? _____
 (b) Are students involved in the evaluation of a potential
teacher before recruitment? _____
 (c) If Yes, what percentage of students per class would lead
to the success of the potential teacher? _____
 (d) How many teachers do you have? _____
 (e) Out of the teachers available indicate those that have:
 (i) Professional training as teachers (B.Ed. holders)

 (ii) Qualified as CPA(K) _____
 (iii) Other qualifications (Specify) _____
 (i) _____
 (2) _____
 (3) _____
 (iv) Accumulated experience of five years and above

5. (a) How many subjects does each teacher handle? _____
 (b) Indicate the number of weekly lessons (WL), assignments
(ASS), quizzes (Q), revision sessions (RS), termly exams (TE),
tutorials (TU), per subject as provided below:-
- (1) CPA I W.L. ASS Q R.S. T.E. TU Other (Specify)
- S1
S2
S3
S4
S5
S6
- (2) CPA II
- S1
S2
S3
S4
S5
S6

(3) CPA III

- S1
- S2
- S3
- S4
- S5
- S6

6. (a) Do you provide teachers with other benefits beside the pay? _____

(b) If yes, indicate them _____

7. (a) (i) Are there cases of student indiscipline? _____

(ii) If Yes, indicate their nature _____

(b) What steps do you take? _____

(c) (i) Are there cases of teachers indiscipline? _____

(ii) If Yes, indicate their nature _____

(d) What steps do you take? _____

8. Any other comment which you feel is important in training of CPA candidates? _____

Thank you for your response.

V9	V10	V11	V12	V13	V14	V15	V16	V17
0	1	0	1	0	1	0	25	7
0	1	0	1	1	1	0	10	3
0	1	0	1	1	1	0	3	1
0	1	0	1	1	1	0	1	2
0	1	1	1	1	1	0	6	8
0	1	0	1	0	1	0	4	32
0	1	1	1	1	1	0	9	11
0	1	0	1	1	1	0	8	9
0	1	0	1	1	1	0	5	4
0	1	0	1	1	1	0	9	7
0	1	0	1	1	1	0	3	2
0	1	0	1	1	1	1	0	12
1	1	1	1	1	1	0	10	14
0	1	0	1	0	1	0	37	1
0	1	1	1	1	1	0	3	1
0	1	0	1	1	1	0	1	2
0	1	0	1	0	1	0	2	0
0	1	0	1	1	1	0	0	0
0	1	0	1	1	1	1	1	0
1	1	1	1	1	1	0	2	5
0	1	1	1	1	1	0	5	2
0	1	1	1	1	1	0	2	2
0	1	0	1	0	1	0	2	0
0	1	1	1	1	1	0	1	0
0	1	0	1	1	1	0	0	1
0	1	1	1	1	1	0	2	3
0	1	0	1	1	1	0	3	2
0	0	0	1	1	1	0	2	0
0	1	0	1	1	1	0	1	0
0	1	0	1	1	1	0	0	0
0	1	0	1	0	1	0	1	0
0	1	0	1	1	1	0	2	1
0	1	1	1	1	1	1	9	3
0	1	1	1	1	1	0	26	11
0	1	0	1	1	1	0	14	12
0	1	0	1	1	1	0	1	2

V18	V19	V20	V21	V22	V23	V24	V25	V26	V27
2	6	8	6	27	2	6	1	1	1
3	3	2	4	2	2	3	1	1	1
0	0	0	4	14	2	5	1	2	1
3	0	2	3	0	2	4	0	1	0
2	5	4	5	3	2	6	2	1	2
0	4	6	4	2	2	3	1	4	1
3	8	6	12	4	2	6	1	1	1
1	4	5	7	3	2	5	0	1	1
2	3	4	7	2	3	4	1	0	1
3	3	4	8	3	2	6	1	1	1
1	0	3	0	0	2	6	0	1	1
0	2	8	0	0	3	5	0	1	1
5	18	19	18	32	2	6	2	2	1
0	1	2	1	2	4	2	0	0	1
1	0	2	1	0	2	6	1	1	1
1	0	3	1	0	2	5	0	1	1
2	0	2	0	0	3	4	1	0	1
1	0	2	0	0	2	3	1	0	1
1	0	2	0	0	2	4	0	1	1
3	0	3	3	0	2	4	2	4	1
0	0	2	0	0	2	5	1	1	1
0	0	2	0	0	2	5	1	1	1
2	0	2	0	0	4	5	1	1	1
0	0	6	2	0	1	4	1	0	0
1	0	2	0	0	3	4	0	1	0
0	2	2	1	0	2	5	1	1	1
0	0	2	0	0	2	4	1	0	1
0	0	2	0	0	2	5	1	1	1
1	0	1	0	0	4	4	1	1	0
0	0	1	3	0	3	4	1	0	0
1	0	1	0	0	8	3	1	1	0
1	0	2	0	0	3	4	1	1	0
4	3	2	1	1	2	6	2	2	1
6	12	10	6	13	2	6	1	1	1
3	1	22	4	3	4	5	1	1	0
0	0	2	0	0	2	4	1	1	0

V28	V29	V30	V31	V32	V33	Y
0	1	0	3	0	0	29.2
2	1	0	1	2	0	21.5
2	0	0	1	1	1	33.0
1	0	0	1	2	2	12.1
1	1	0	0	0	0	34.3
0	0	0	0	0	0	27.6
1	0	0	2	1	1	30.8
2	1	0	2	1	2	43.9
1	0	0	2	1	1	23.3
2	1	0	1	0	0	37.5
2	1	0	1	0	0	65.2
2	1	0	3	1	2	36.5
2	3	2	4	0	0	66.3
0	0	0	6	4	4	7.7
1	1	0	0	1	0	40.0
2	1	0	3	1	1	36.0
0	1	0	3	1	2	12.0
0	0	0	0	2	2	16.0
2	1	0	0	1	0	52.9
0	2	0	2	4	2	33.3
1	2	1	4	0	0	68.8
1	1	1	4	0	0	72.7
0	0	0	4	0	0	14.3
0	1	1	0	3	2	17.2
0	0	0	1	2	1	25.7
1	0	1	5	1	0	41.2
0	0	0	1	2	2	29.3
1	0	1	4	2	1	35.6
0	0	0	0	3	5	12.2
0	0	0	1	4	3	23.6
1	0	0	0	2	3	14.7
0	0	1	1	2	3	21.3
1	1	0	3	0	0	61.0
0	1	0	2	0	0	30.5
1	0	0	0	3	4	21.7
0	0	0	0	4	3	24.8

COLLEGE PERFORMANCE PER SECTION IN PERCENTAGES

Kenya College of Accountancy

SECTION	1	2	3	4	5	6	OVERALL
PASS(P)	34.3	29.2	25.3	35.1	33.9	12.7	29.2
FAIL(F)	37.3	35.4	44.4	40.3	53.2	65.1	45.8
REFERRED(R)	23.8	27.1	20.3	18.7	06.4	04.7	16.6
ABSENT(A)	04.5	08.3	09.8	06.0	06.4	17.5	08.4

Dynamic Institute of Management and Accounting

P	34.8	17.1	17.9	03.3	23.4	04.8	21.5
F	34.8	48.7	39.3	64.8	51	80.9	45.3
R	20.3	17.1	19.3	14.3	08.5	09.5	17.4
A	10.1	17.1	23.4	17.6	17	04.8	15.8

Universal College

P	31.1	40	44.4				33
F	44.4	30	11.1				41.1
R	15.6	20	22.2				16.1
A	08.9	10	22.2				09.8

Kenya College of Communication and Technology

P	08.3	28.6					12.1
F	72.9	57.1					70.1
R	12.5						10.3
A	06.3	14.3					06.9

Kenya School of Professional Studies							
P	53.8		20	25			34.3
F	30.7		50	50			42.8
R	07.7		10	08.3			08.6
A	07.7	-	10	08.3	-	-	08.6
Profesco							
P	30.6	26.3	25	23.5			27.6
F	36.1	63.2	56.3	70.6			51.7
R	25	10.5	12.5	05.9			16.1
A	08.3	-	-	06.3			04.6
Kenya Polytechnic							
P	57.1	28.5	32.1	-	-	-	30.8
F	42.8	32.3	35.8				33.8
R	14.3	26.2	22.3				20.4
A	14.3	13	09.8				15
Devonshire College							
P	43.8	50	36.4				43.9
F	37.0	33.3	48.5				39.8
R	17.8	16.7	15.2				17.1
A	01.4	-	-	-	-	-	001

Kimathi Institute of Technology

P	37.5	25	55.5	27.3	-	-	36.5
F	33.3	12.5	22.2	45.5			31.8
R	08.3	12.5	22.2	09.1			10.6
A	20.8	50	-	18.2	-	-	21.2

Strathmore

P	54	64	71	56	62.8	71.8	66.3
F	28	21	14	24	21.3	18.2	23.6
R	16	14	13	16	08.4	6.7	08.7
A	2	1	2	4	07.5	3.3	01.4

Kenya Institute of Administration

P	-	-	-	-	20	-	07.7
F					20	87.5	60.5
R					60	12.5	30.8
A	-	-	-	-	-	-	-

Vision Institute of Professionals

P	43	36.4	23.3	29.4	27	08.5	30.5
F	36.6	43.2	45.1	46.8	46.8	61.3	44.9
R	15.7	12.7	17.3	13.4	12.1	12.3	14.6
A	04.7	07.6	14.3	10.4	14.2	17.9	10.0

University of Nairobi							
P	21.3	24.2	18.6	19.5			21.7
F	42.9	39.6	44.5	52.7			43.9
R	18.3	20.4	19.7	16.3			19.6
A	17.5	15.8	17.2	11.5			14.8
Thika Technical							
P	23.3	-	-	-	-	-	23.3
F	34.1	-	-	-	-	-	34.1
R	21.9	-	-	-	-	-	21.9
A	21.7	-	-	-	-	-	21.7
Nyeri Technical							
P	37.5	-	-	-	-	-	37.5
F	45	-	-	-	-	-	45
R	12.5	-	-	-	-	-	12.5
A	05.0	-	-	-	-	-	05.0
Karatina College of Accountancy							
P	65.2	-	-	-	-	-	65.2
F	13.0	-	-	-	-	-	13.0
R	17.4	-	-	-	-	-	17.4
A	04.3	-	-	-	-	-	04.3
Woodvale College							
P	40	-	-	-	-	-	40
F	-	-	-	-	-	-	-
R	40	-	-	-	-	-	40

A	10	-	-	-	-	-	10
St. Teresa's Community Centre							
P	36	-	-	-	-	-	36
F	42	-	-	-	-	-	42
R	12	-	-	-	-	-	12
A	10	-	-	-	-	-	10
Kinyanjui Technical							
P	12	-	-	-	-	-	12
F	65	-	-	-	-	-	65
R	20	-	-	-	-	-	20
A	3	-	-	-	-	-	3
Kenyan College							
P	16	-	-	-	-	-	16
F	58	-	-	-	-	-	58
R	14	-	-	-	-	-	14
A	12	-	-	-	-	-	12
Christian Industrial Training Centre							
P	52.9	-	-	-	-	-	52.9
F	29.4	-	-	-	-	-	29.4
R	17.6	-	-	-	-	-	17.6
A	-	-	-	-	-	-	-

New Era School

P	33.3	-	-	-	-	-	33.3
F	37.0	-	-	-	-	-	37.0
R	29.6	-	-	-	-	-	29.6
A	-	-	-	-	-	-	-

B.T.C. Kenyatta University

P	68.8	-	-	-	-	-	68.8
F	18.8	-	-	-	-	-	18.8
R	12.5	-	-	-	-	-	12.5
A	-	-	-	-	-	-	-

Superior Commercial College

P	72.7	-	-	-	-	-	72.7
F	9.1	-	-	-	-	-	9.1
R	18.2	-	-	-	-	-	18.2
A	-	-	-	-	-	-	-

Nyeri School of Accountancy

P	14.3	-	-	-	-	-	14.3
F	71.4	-	-	-	-	-	71.4
R	-	-	100	-	-	-	100
A	14.3	-	-	-	-	-	14.3

Sterling Business School

P	17.2	-	-	-	-	-	17.2
F	61.3	-	-	-	-	-	61.3
R	18.2	-	-	-	-	-	18.2

A	3.3	-	-	-	-	-	3.3
Githunguri Commercial College							
P	25.7	-	-	-	-	-	25.7
F	41.8	-	-	-	-	-	41.8
R	19.2	-	-	-	-	-	19.2
A	13.3	-	-	-	-	-	13.3
Gatimu and Associates							
P	41.2	-	-	-	-	-	41.2
F	45.3	-	-	-	-	-	45.3
R	2.7	-	-	-	-	-	2.7
A	10.8	-	-	-	-	-	10.8
Ebenezer Commercial College							
P	29.3	-	-	-	-	-	29.3
F	49.4	-	-	-	-	-	49.4
R	13.7	-	-	-	-	-	13.7
A	7.6	-	-	-	-	-	7.6
Kenya Technical Teachers							
P	35.6	-	-	-	-	-	35.6
F	47.5	-	-	-	-	-	47.5
R	11.8	-	-	-	-	-	11.8
A	5.1	-	-	-	-	-	5.1
Kangema Technical							
P	12.2	-	-	-	-	-	12.2
F	69.7	-	-	-	-	-	69.7

R	16.5	-	-	-	-	-	16.5
A	1.6	-	-	-	-	-	1.6
Kabete T.T.I.							
P	23.6	-	-	-	-	-	23.6
F	37.8	-	-	-	-	-	37.8
R	31.5	-	-	-	-	-	31.5
A	7.1	-	-	-	-	-	7.1
College of Accountancy and Business Studies							
P	14.7	-	-	-	-	-	14.7
F	58.7	-	-	-	-	-	58.7
R	18.3	-	-	-	-	-	18.3
A	8.3	-	-	-	-	-	8.3
Railway Training Institute							
P	21.3	-	-	-	-	-	21.3
F	39.9	-	-	-	-	-	39.9
R	18.6	-	-	-	-	-	18.6
A	20.2	-	-	-	-	-	20.2
Murang'a College of Technonogy							
P	24.4	-	-	-	-	-	24.4
F	41.2	-	-	-	-	-	41.2
R	19.8	-	-	-	-	-	19.8
A	14.2	-	-	-	-	-	14.2

Starehe Boys Centre							
P	60	62	-	-	-	-	
F	32	22	-	-	-	-	
R	8	16	-	-	-	-	
A	-	-	-	-	-	-	-

Key F- Fail P- Pass A - Absent R - Referred

Appendix 7(a)

RANKING OF COLLEGES PERFORMANCE

(A) Colleges offering CPA parts I, II, & III

<u>College</u>	<u>Pass Rate</u>	<u>Position</u>
1. Strathmore	66.3	1
2. Vision Institute of Professionals	30.5	2
3. Kenya College of Accountancy	29.2	3
4. Dynamic Institute of Management & Accountancy	21.5	4

(B) Colleges offering CPA parts I & II

1. Devonshire	43.9	1
2. Kimathi Institute of Technology	36.5	2
3. Kenya School of Professional Studies	34.3	3
4. Universal College	33	4
5. Kenya Polytechnic	30.8	5
6. Profesco	27.6	6
7. University of Nairobi	21.7	7

(C) Colleges offering CPA part I only

1. Superior Commercial College	72.7	1
2. B.T.C. Kenyatta University	68.8	2
3. Karatina College of Accountancy	65.2	3
4. Starehe Boys Centre	60.6	4
5. Christian Industrial Training Centre	52.9	5
6. Gatimu and Associates	41.2	6
7. Woodvale College	40	7
8. Nyeri Technical	37.5	8
9. St. Teresa's Community Centre	36	9
10. Kenya Technical Teachers	35.6	10
11. New Era School	33.3	11
12. Ebenezer Commercial College	29.3	12
13. Sterling Business School	25.7	13
14. Murang'a College of Technology	24.4	14
15. Kabete T.T.I.	23.6	15
16. Thika Technical	23.3	16
17. Railway Training Institute	21.3	17
18. Githunguri Commercial College	17.2	18
19. Kenyan College	16	19
20. College of Accountancy and Business Studies	14.7	20
21. Nyeri School of Accountancy	14.3	21

22. Kangema Technical	12.2	22
23. Kenya College of Communication and Technology	12.1	23
24. Kinyanjui Technical	12	24

(D) Colleges offering CPA part III only

1. Kenya Institute of Administration	7.7	1
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Appendix 8.

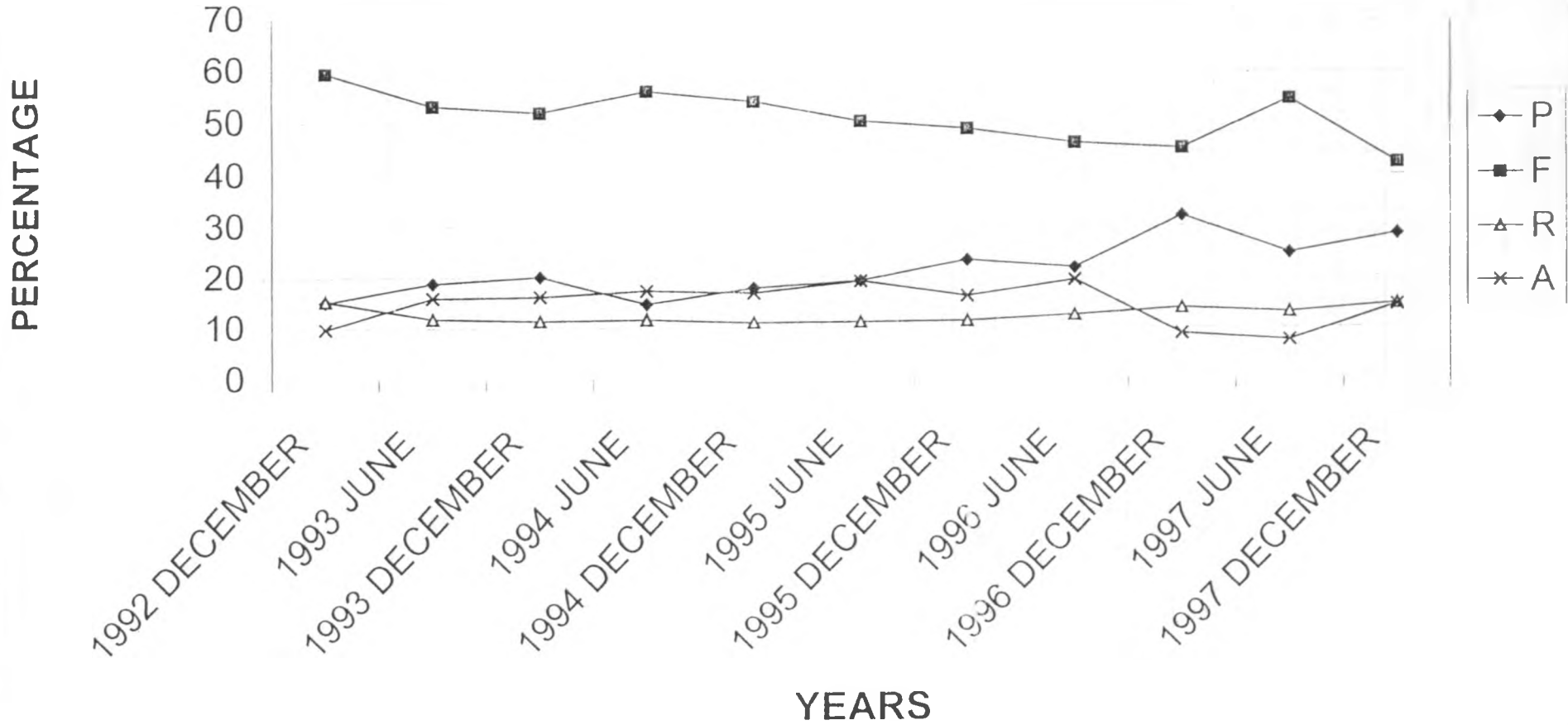
Overall CPA Performance in Percentages

SECTION	1	2	3	4	5	6	OVERALL
1992 DECEMBER							
P	18.1	16.4	11.9	18.1	03.8	13	15.2
F	57.4	60.4	61.5	59.1	64.4	54.8	59.5
R	11.1	10.8	09.1	09.1	07.1	10.6	15.4
A	13.4	12.4	17.5	13.7	24.7	21.6	9.9
1993 JUNE							
P	22.7	26.4	12.4	14.1	06.5	16.3	18.9
F	51.6	48.7	54.9	57.6	63.8	52.8	53.2
R	12.1	12.7	13.1	09.7	09.0	10.3	11.9
A	13.6	12.2	19.6	18.6	20.7	20.6	16
1993 DECEMBER							
P	25.6	21.3	18	17	14.3	16	20.2
F	47.8	53.8	54.3	52.7	48.7	57.8	52.0
R	11.9	11.1	10.8	13.3	13.7	06.1	11.5
A	14.7	13.8	16.9	17	23.3	20.1	16.3
1994 JUNE							
P	16.5	15.5	12.4	20.8	08.9	06.1	14.8
F	53.1	60.0	58	48.7	56.3	65.5	56.1
R	14.7	09.8	11.1	12.1	11.8	07	11.7

A	15.7	14.7	18.5	18.4	23	21.5	17.4
1994 DECEMBER							
P	28	23.9	10.4	10.5	08.2	03.5	17.9
F	45.2	49.1	60.1	60.0	62.1	71.5	54.1
R	13	12.5	09.5	12.1	07.6	04.6	11.1
A	13.8	14.5	20	17.2	22.1	20.4	16.9
1995 JUNE							
P	34.2	15.7	12.3	17.4	09.8	08.2	19.3
F	36.9	55.3	55.8	49.6	58.7	58.7	50.3
R	13.6	13.7	09.1	11.7	06.0	06.3	11.2
A	15.3	15.3	22.8	21.3	25.5	26.8	19.2
1995 DECEMBER							
P	36.6	20.1	16.4	23.3	10.7	07.1	23.4
F	37.6	55.6	52.4	47.3	59.2	59.3	48.9
R	13.4	11.4	10.8	11.3	06.2	09.0	11.4
A							
1996 JUNE							
P	37.1	14.0	20.3	16.9	08.5	12	21.9
F	36.48	42.4	48.5	52.8	65.3	58.6	46.2
R	13.9	12.9	13.1	11.2	07.1	12	12.5
A	12.5	30.7	18.1	19.1	19.1	17.4	19.4

1996 DECEMBER							
P	28.2	40.4	40.6	25.5	16.4	22.2	32.1
F	43.6	42.4	39.5	49.7	61.3	56.8	45.2
R	15.2	13.9	13.7	11.8	13.6	12.2	13.9
A	13	03.3	06.2	13	8.7	8.8	8.8
1997 JUNE							
P	25.9	27.3	23.1	25.9	25.2	11.3	24.8
F	49.2	48.4	47.5	47.2	44.8	60.3	54.6
R	14.4	11.9	14	11.3	12.5	12.1	13.1
A	10.5	12.4	15.4	15.6	17.5	16.3	07.5
1997 DECEMBER							
P	34.8	33.4	25.8	26.6	27.7	14.3	28.5
F	38.3	36.3	43.7	48.3	41.9	59.6	42.4
R	16.9	16.3	14.1	12	13	10.3	14.7
A	10	14	16.4	13.1	17.7	17.8	14.4

OVERALL PERFORMANCE OF CPA CANDIDATES BETWEEN 1992 - 1997



Appendix 10.

Teachers Qualification Analysis

	5Y	%	B	%	D	%	CK	%	PC	%	G	%	M	%	T
1	25	55	7	15	2	4	6	13	8	18	6	13	27	60	45
2	10	83	3	25	3	25	3	25	2	17	4	33	2	17	12
3	3	50	1	17	0	0	0	0	0	0	4	67	1	17	6
4	1	13	2	25	3	38	0	0	2	25	3	38	0	0	8
5	6	30	8	40	2	10	5	25	4	20	5	25	3	15	20
6	4	40	2	20	0	0	4	40	6	60	4	40	2	20	10
7	9	27	11	33	3	9	8	24	6	18	12	36	4	12	35
8	8	32	9	36	1	4	4	16	5	20	7	28	3	12	25
9	5	30	4	24	2	12	3	18	4	24	7	22	2	12	18
10	9	36	7	28	3	12	3	12	4	16	8	32	3	12	24
11	3	100	2	67	1	33	0	0	3	100	0	0	0	0	3
12	10	80	12	100	0	0	2	16		64	0	0	0	0	12
13	37	60	4	6	5	8	18	27	19	28	18	27	32	48	62
14	3	75	1	25	0	0	1	25	2	50	1	25	2	50	4
15	1	33	1	33	1	33	0	0	2	67	1	33	0	0	3
16	2	40	2	40	1	20	0	0	3	60	1	20	0	0	5
17	0	0	0	0	2	100	0	0	2	100	0	0	0	0	2
18	1	50	0	0	1	50	0	0	2	100	0	0	0	0	2
19	2	67	0	0	1	33	0	0	2	67	0	0	0	0	3
20	5	40	5	40	3	24	0	0	03	24	3	24	0	0	12
21	2	67	2	67	0	0	0	0	2	67	0	0	0	0	3
22	2	100	2	100	0	0	0	0	2	100	0	0	0	0	2
23	1	33	0	0	2	67	0	0	2	67	0	0	0	0	3
24	0	0	0	0	0	0	0	0	6	100	2	33	0	0	6
25	2	100	1	50	1	50	0	0	2	100	0	0	0	0	2
26	3	60	3	60	0	0	2	40	2	40	1	20	0	0	5
27	2	100	2	10	0	0	0	0	2	100	0	0	0	0	2
28	1	50	0	0	0	0	0	0	2	100	0	0	0	0	2

29	0	0	0	0	1	100	0	0	1	100	0	0	0	0	1
30	0	0	0	0	0	0	1	25	1	25	3	75	0	0	4
31	1	100	0	0	1	100	0	0	1	100	0	0	0	0	1
32	2	100	1	50	1	50	0	0	2	100	0	0	0	0	2
33	1	50	2	100	0	0	0	0	2	100	0	0	0	0	2
34	9	90	3	30	4	40	3	30	2	20	1	10	1	10	10
35	26	78	11	33	6	18	12	36	10	30	6	18	13	39	36
36	14	56	12	48	3	12	1	4	22	88	4	16	3	12	25

KEY

- | | | | | | |
|----|-----------|----|-----------|----|------------------------|
| C | -Colleges | CK | - CPA(K) | 5y | -five years experience |
| PC | -Part CPA | B | -B.e.d | T | - Total |
| D | -Diploma | G | -Graduate | | |

Appendix 11

FACTOR ANALYSIS Correlation Matrix

	V1	V2	V3	V4	V5	V6	V7	V8	V9
V1	1.00								
V2	0.5744	1.00							
V3	0.6571	0.4124	1.00						
V4	0.5972	0.3783	0.8283	1.00					
V5	0.7325	0.4999	0.8452	0.7977	1.00				
V6	0.5972	0.3783	0.8283	1.00	0.7977	1.00			
V7	0.5429	0.3921	0.8857	0.8283	0.8452	0.8283	1.00		
V8	0.6678	0.4695	0.8935	0.7292	0.8346	0.7292	0.7806	1.00	
V9	0.2153	0.5100	-0.0308	-0.0456	0.0121	-0.0456	-0.0308	0.0020	1.00
V11	0.3160	0.4162	0.1937	0.2818	0.3015	0.2818	0.1937	0.2651	0.3841
V13	0.3780	0.2771	0.5292	0.5606	0.4472	0.5606	0.5292	0.4728	0.1139
V15	0.2988	0.4269	0.1195	0.1007	0.1768	0.1007	0.1195	0.1574	0.7206
V16	0.1228	0.6410	0.1439	0.1963	0.2145	0.1963	0.2421	0.1744	0.4631
V17	0.0152	0.2892	0.0152	0.0848	0.0896	0.0848	0.1242	0.0499	0.1951
V18	0.1887	0.5577	0.0031	0.0605	0.0549	0.0605	0.1144	0.0010	0.4242
V19	0.1974	0.7381	0.2421	0.2285	0.2865	0.2285	0.2570	0.2563	0.4467
V20	-0.0289	0.4522	-0.0165	0.2076	0.0489	0.2076	0.2438	0.0109	0.3621
V21	0.1897	0.5669	0.2042	0.2387	0.1787	0.2387	0.2187	0.1818	0.4748
V22	0.0649	0.5138	0.0807	0.0809	0.1358	0.0809	0.1043	0.1121	0.4343
V23	-0.4122	-0.2140	0.2939	-0.2741	-0.3572	-0.2741	-0.2456	0.3353	-0.1153
V24	0.1360	0.4220	0.4866	0.6204	0.5758	0.6204	0.5397	0.5446	0.1048
V25	-0.0080	0.2411	-0.0080	-0.0921	-0.0475	-0.0921	-0.1044	0.0608	0.4963
V26	0.1814	0.1923	-0.0747	-0.0791	0.0631	0.0791	-0.0107	-0.0035	0.5490
V27	0.3144	0.3160	-0.3144	0.3444	0.4650	0.3444	0.3144	0.3752	0.1185
V28	0.4582	0.3549	0.4582	0.5465	0.5560	0.5465	0.5287	0.4989	0.0531
V29	0.4055	0.6129	0.1700	0.2028	0.3095	0.2028	0.1700	0.2627	0.6449
V30	0.1572	0.4361	0.2951	0.1325	0.2325	0.1325	0.2751	0.3234	0.3892
V31	0.3108	0.2415	0.2423	0.1480	0.2867	0.1480	0.2081	0.2600	0.1848
V32	-0.3361	-0.3768	-0.4229	-0.4021	-0.5346	-0.4663	-0.4663	-0.4248	0.0957
V33	-0.3815	-0.3336	-0.3815	-0.3983	-0.4993	-0.3410	-0.3410	-0.3523	-0.0647

V11	V13	V15	V16	V17	V18	V19	V20
1.00							
0.2967	1.00						
0.5330	0.1581	1.00					
0.2691	0.0093	0.3266	1.00				
0.1081	-0.1604	0.0887	0.4977	1.00			
0.3100	0.0900	0.3558	0.7015	0.2552	1.00		
0.4000	0.0296	0.2961	0.8989	0.5673	0.6803	1.00	
0.1695	0.0601	0.1858	0.7632	0.5781	0.5037	0.6363	1.00
0.2815	0.1119	0.2451	0.7512	0.5226	0.6041	0.8574	0.6021
0.1608	-0.1302	0.2552	0.8658	0.3354	0.4641	0.7786	0.5607
-0.3519	-0.5006	-0.1600	-0.1478	-0.1554	-0.0623	-0.1926	-0.0268
0.4703	0.3277	0.2128	0.4748	0.1530	0.4070	0.4441	0.3372
0.5701	0.0213	0.5375	0.2436	0.0860	0.3243	0.3571	-0.0047
0.2322	-0.0565	0.4798	0.2096	0.5760	0.2090	0.2073	0.1443
0.3084	-0.0520	0.1644	0.2292	0.2397	0.1446	0.3177	0.0270
-0.0126	0.3730	0.0737	0.2034	0.0822	0.1106	0.1792	0.1504
0.5273	0.1730	0.6840	0.5285	0.1575	0.3979	0.4724	0.3368
0.4486	0.2080	0.3905	0.2703	0.0042	-0.0298	0.3279	0.2700
0.2248	-0.2338	0.3101	0.2139	-0.0677	0.0145	0.2033	0.0214
-0.2592	0.0861	-0.1134	-0.3635	-0.3370	-0.2829	-0.4199	-0.1255
-0.4059	-0.0625	-0.2048	-0.2939	-0.2020	-0.2525	-0.3534	0.0122

	V21	V22	V23	V24	V25	V26
V21	1.00					
V22	0.7126	1.00				
V23	-0.2164	-0.1550	1.00			
V24	0.3992	0.4028	-0.3727	1.00		
V25	0.3060	0.2882	-0.1369	0.2263	1.00	
V26	0.2062	0.1888	-0.1369	0.2263	0.3389	1.00
V27	0.2310	0.2003	-0.3876	0.3773	0.2872	0.1614
V28	0.3026	0.1384	-0.1440	0.3820	-0.2279	0.0921
V29	0.3911	0.4333	-0.3552	0.4212	0.3346	0.2979
V30	0.2476	0.3194	-0.2104	0.1704	0.3093	0.0367
V31	0.0722	0.2040	-0.0478	0.1474	0.0297	-0.0500
V32	-0.2756	-0.3383	0.2399	-0.6279	-0.1433	-0.1660
V33	-0.2511	-0.2760	0.4999	-0.5404	-0.2553	-0.2635

V27	V28	V29	V30	V31	V31	V32	V33
-----	-----	-----	-----	-----	-----	-----	-----

1.00							
0.3394	1.00						
0.3958	0.3711	1.00					
-0.0270	0.0970	0.4138	1.00				
0.3686	0.0598	0.2415	0.4078	1.00			
-0.6115	-0.4145	-0.3624	-0.1492	-0.2218	1.00		
-0.6501	-0.3790	-0.4374	0.1857	-0.2160	0.8059	1.00	

Appendix 12

MULTIPLE REGRESSION

Equation Number 1 Dependent Variable. V 30

Multiple T	.92208
R Square	.85023
Adjusted R Square	.79838
Standard Error	7.74191

Analysis of Variance

	DF	Sum of Squares	Mean square
Regression	9	8846.46240	982.94027
Residual	26	1558.36732	59.93720

F= 16.39950 Signif F = .0000

Variables in the Equation

Variable	B
Number of computer text books	12.300171
College entrance examination selection criteria	17.702410
Number of teachers with five years experience and above	1.847661
Number of teachers qualified as B.ed holders	-1.139029
Number of teachers qualified as diploma holders	-6.212093
Number of teachers qualified as master degree holders	-1.185388
Number of subjects a teacher handles	-2.342002
Number of weekly quizzes	6.136197
Number of students disciplinary cases	-5.811660
(Constant)	37.880075

SE B	Beta	T	Sig T
3.246157	.352710	3.789	.0008
5.667450	.327242	3.124	.0044
.609539	.872655	3.031	.0055
.388298	-.415251	-2.93	.0069
1.513301	-.554737	-4.105	.0004
.479946	-.499128	-2.470	.0204
1.187487	-.160674	-1.972	.0593
2.465448	.317686	2.489	.0195
1.236202	-.444075	-4.701	.0001
5.508141	6.877		0000

Appendix 13

Factor Analysis Output of Variable, Communalities and Eigen Values

Initial Statistics:

Variable	Communality	Factor	Eigen value	%of Var	Cum %
Library	1	1	10.19677	34.0	34.0
Library sitting capacity	1	2	5.19624	17.3	51.3
Number of management text books	1	3	2.53161	8.4	59.7
Number of computer text books	1	4	2.08790	7.0	66.7
Number of statistic text books	1	5	1.56431	5.2	71.9
Number of accounting text books	1	6	1.30008	4.3	76.3
Number of company law text books	1	7	1.07301	3.6	79.8
Number of economics text books	1	8	.973421	2.9	82.7
Availability of video teaching aid	1				
Availability of past papers	1				
Availability of pamphlets	1				
Availability of notes and write-ups	1				
Availability of other teaching materials	1				
College entrance examination selection criteria	1				
Number of teachers qualified with five years and above experience	1				
Number of teachers qualified as B. ED holders	1				
Number of teachers qualified as CPA(K)	1				
Number of teachers qualified as Diploma holders in management, education, and computer	1				
Number of teachers qualified as part CPA(K)	1				

Number of teachers qualified as other degree holders
Number of teachers qualified as Master degree holders
Number of subjects a teacher handles
Number of weekly lessons
Number of weekly assignments
Number of weekly quizzes
Number of revisions sessions
Number of termly exams
Number of tutorials
Number of weekly class discussions
Other benefits provided to teachers besides the pay
Number of students disciplinary cases
Number of teachers disciplinary cases

1
1
1
1
1
1
1
1
1
1
1
1
1
1
1

Appendix 14

Factor Analysis Output of Variable and Communality for College Responses

Final Statistics:

Variable	Communality	Factor	Eigenvalue	%of Var	Cum %
Library	.73100	1	10.19677	34.0	34.0
Library sitting capacity	.73806	2	5.19624	17.3	51.3
Number of management text books	.87667	3	2.53161	8.4	59.7
Number of computer text books	.86745	4	2.08790	7.0	66.7
Number of statistic text books	.88203	5	1.56431	5.2	71.9
Number of accounting text books	.86745	6	1.30008	4.3	76.3
Number of company law text books	.85862	7	1.07301	3.6	79.8
Number of economics text books	.81004				
Availability of video teaching aid	.87385				
Availability of pamphlets	.72501				
Number of teachers qualified as part CPA(K)	.85367				
Availability of other teaching materials	.89855				
College entrance examination selection criteria	.79816				
Number of teachers qualified with five years and above experience	.92777				
Number of teachers qualified as B. ED holders	.92588				
Number of teachers qualified as Diploma holders in management education, computer	.78268				
Number of teachers qualified as CPA(K)	.91130				
Number of teachers qualified as part CPA(K)	.79396				
Number of teachers qualified as other degree holders	.76193				
Number of teachers qualified as Masters holders	.75427				
Number of subjects a teacher handles	.52471				
Number of weekly lessons	.70598				
Number of weekly assignments	.70283				

Number of weekly quizzes	.89244
Number of revisions sessions	.71682
Number of termly exams	.65933
Number of tutorials	.74727
Number of weekly class discussions	.77213
Other benefits provided to teachers besides the pay	.78500
Number of students disciplinary cases	.83206
Number of teachers disciplinary cases	.82665

Appendix 15

Initial Factor Matrix:

Variable	Factor1
Library	.65892
Library sitting capacity	.78043
Number of management text books	-.69107
Number of computer text books	-.70758
Number of statistic text books	-.76447
Number of accounting text books	-.70758
Number of company law text books	-.70792
Number of economics text books	-.70673
Availability of video teaching aids	-.40997
Availability of pamphlets	-.55175
Availability of other teaching materials	-.40831
College entrance examination selection criteria	-.46834
Number of teachers qualified with five years experience and above	-.66079
Number of teachers qualified as B. ED holders	-.37557
Number of teachers qualified as Diploma holders in management, education, computer etc.	-.48131
Number of teachers qualified as CPA(K)	-.71252
Number of teachers qualified as part CPA(K)	-.44128
Number of teachers qualified as other degree holder apart from B.ed	-.62675
Number of teachers qualified as	

Factor2	Factor3	Factor4	Factor5	Factor 6	Factor 7
-.35681	.21117	.05702	-.02208	.26362	-.22735
.23262	-.00368	.18862	.10073	.06879	-.15624
-.59685	-.01661	.12479	.09277	.02793	.13278
-.56550	-.14850	.13833	-.06319	-.01779	.03872
-.52675	.01067	-.03346	.04730	.12392	.03640
-.56550	-.14850	.13833	-.06319	-.01779	.03872
-.52530	-.16492	.15270	.03732	.07883	.15301
-.52201	.05386	.08056	.09822	.05000	.12858
.60754	.39420	.30158	-.06296	.28447	-.07477
.18807	.49907	.01978	-.06800	-.33752	.13118
-.40758	.15646	.55994	-.41134	-.24015	-.02870
.37869	.59158	.16787	-.01314	.22661	-.07579
.57019	-.37070	.07370	.13026	-.06183	-.04860
.40382	-.39363	.22571	-.32903	.29601	.48436
.52418	.19000	.06388	-.14609	-.15806	-.43561
.53046	-.30340	.01785	.10319	-.12455	.06074
.48089	-.49316	.31725	-.00126	.03761	.15066
.48304	-.33494	.11918	-.04931	-.08143	.01847

Master degree holders	-.53694	.56005
Number of subjects a teacher handles	-.45955	.11010
Number of weekly lessons	-.75728	-.10331
Number of weekly assignments	-.29080	.46209
Number of weekly quizzes	-.26483	.38877
Number of revisions sessions	-.54281	-.06942
Number of termly exams	-.54402	-.32671
Number of tutorials	.65613	.33741
Number of weekly class discussions	.42645	.14845
Other benefits provided to teachers besides the pay	.32355	.00214
Number of students disciplinary cases	-.63660	.08846
Number of teachers disciplinary case	-.63294	.07153

-.29194	.01524	.23962	-.09715	.00078
-.23916	.11525	.32457	.31498 -	.16238
-.08920	.10994	-.08784	-.28194	-.12076
.51166	.10147	-.10106	-.32499	.12969
.24793	.18960	-.48814	.52196	.23302
.12127	-.63074	.02126	.00756	-.06571
-.19567	-.00537	-.10098	.32752	-.31757
.34496	.01202	.01302	.10950	.26761
.34087	.30060	.44114	-.08597	.38861
.24275	-.17197	.74126	.20037	.04681
.14414	.62530	-.05935	.05792	.01768
-.12673	.61224	.09372	.14176	.03393

Appendix 16

Rotated Factor Matrix

Variable	Factor 1	Factor 2
Library	.69473	-.01395
Library sitting capacity	.40378	.58741
Number of management text books	.90731	.02671
Number of computer text books	.91092	.12251
Number of statistic text books	.87345	.04866
Number of accounting text books	.091092	.12251
Number of company law text books	.89954	.14762
Number of economics text books	.85100	.03146
Availability of video teaching aid	-.07245	.36688
Availability of pamphlets	.17693	.17546
Availability of other teaching materials	.67320	-.02828
College entrance examination selection criteria	.06381	.14473
Number of teachers qualified with five years and above exp.	08911	.92795
Number of teachers qualified as B. ED holders	.01649	.48902
Number of teachers qualified as Diploma holders in management, education, computer etc.	.03469	.71242
Number of teachers qualified as CPA(K)	.13187	.88652
Number of teachers qualified as part CPA(K)	.10353	.82610
Number of teachers qualified as other degree holders	.14536	.82529

Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
.43855	.22447	-.04870	.02495	-.04945
.44091	.1165	.08476	.11413	-.04219
-.02089	.11424	.09340	.17396	-.01648
-.02089	.11948	.06562	-.03387	-.01838
.09816	.29504	.03242	.13304	.03619
-.05103	.11948	.06562	-.03387	-.01838
-.05789	.07641	.02028	.11361	.07176
.05534	.15971	.12202	.20334	.00691
.79799	-.14564	.17942	.11065	.17767
.3541	.17533	.70074	.12102	.03446
.14104	-.34040	.39701	-.36487	-.13435
.80541	.01812	.28287	.18864	.09299
.16410	.13930	.03466	.08743	.05957
-.06936	.16217	-.00141	-.05417	.80772
.34248	.17791	.05239	-.30645	-.16833
.12886	.19184	.16539	.12117	.11202
.01302	-.21223	-.03258	.01185	.23320
.13710	.07257	.11878	-.04179	.14062

Number of teachers qualified as Master degree holders	-.02300	.81576
Number of subjects a teacher handles	-.32641	-.02976
Number of weekly lessons	.52697	.40290
Number of weekly assignments	-.21304	.17238
Number of weekly quizzes	-.07289	.05563
Number of revision sessions	.23767	.06960
Number of termly exams	.62450	.13874
Number of tutorials	.17604	.35632
Number of weekly class discussions	.21766	.22261
Other benefits provided to teachers besides the pay	.13278	.05707
Number of students disciplinary cases	-.33279	-.26402
Number of teachers disciplinary cases	-.29629	-.12558

10703	.17687	.05760	.20405	.02420
.06071	-.25131	-.56183	.15903	-.09747
05922	.39917	.27395	-.11576	-.12108
35850	.18633	.67476	.08783	.03831
52161	.16002	.08583	-.12325	.75086
12888	.78088	.10940	.09507	.08998
22136	.23707	-.33993	-.17118	.00633
69060	.26472	.18462	.07744	-.04725
21005	-.18750	.41841	.64872	.00096
21566	.27516	-.10402	.78029	-.14904
.06334	-.79245	-.04985	-.08494	-.09959
-.09596	-.79453	-.27456	.00434	-.08490