**THE INSTITUTE OF CHARTERED ACCOUNTANTS GHANA (ICAG)**

**FINAL REPORT**

**ON**

**LINK BETWEEN THE INSTITUTE OF CHARTERED ACCOUNTANTS (GHANA) SYLLABUS AND EXAMINATION CONTENT: A CASE OF COMPLIANCE**

**SUBMITTED BY**

**PROJECT RESEARCH TEAM**
**FACULTY OF ACCOUNTING AND FINANCE**
**UPSA, ACCRA**

**TO**

**THE CHIEF EXCUTIVE OFFICER**
**THE INSTITUTE OF CHARTERED ACCOUNTANTS, GHANA (ICAG)**
**ACCRA**

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## Executive Summary

Syllabus is an essential course-planning tool that contains information about a course, needed to help students succeed in an examination. However, the ability of a syllabus to achieve its objective depends largely on the extent of its compliance with examination content. The study examined the ICAG's Syllabus and examination content nexus to ascertain the extent of compliance. Data on past examination questions and pass rates from May 2015 to May 2019, as well as the revised May 2015 syllabus, were obtained from the Institute for the study. The Bloom's Taxonomy provided the theoretical underpinnings for the study. Content analysis, descriptive analysis and panel regression were employed to analyse the data collected. The study found an overall average compliance rate of 67 percent, with level three obtaining the highest compliance rate of 73.7 percent. The spread of questions over topics was 74.8 percent, with some variations in the extent of knowledge assessed for the three levels, as measured by Blooms taxonomy. The study also found overall compliance level and spread of questions over topics to positively affect students' pass rates over time, albeit not significant. The findings suggest the need to improve the compliance level of the ICAG syllabus to have a better link with its examination content through appropriate measures. ICAG should educate examiners to adhere to the content of its syllabus in setting examination questions. The examination questions should fairly cover topics in the syllabus, with the appropriate assigned marks in the syllabus to enhance students' pass rate. With the wide variations in mark allocation on question papers, the Institute must design a system to ensure examiners do not allot marks on question papers differently from those in the syllabus. Above all, spread of examination questions over topics in the syllabus should be well aligned to achieve stated learning outcomes, using appropriate Blooms taxonomy. There is no doubt that improving the compliance level between the ICAG syllabus and examination content will enhance the examination pass rates, enrolment rates and the financial position of the Institute.

## 1.0    Introduction

Compliance issues have become a major concern to stakeholders in various sectors across the world today, including the educational sector (VComply, 2019, Benedek, 2016, Steinfeld & Archuleta, 2006). In delivering on their mandate, educational institutions are confronted with several regulations, requirements, standards, policies and procedures that require compliance for their effective operation. Some of these standards and requirements relate to financial management, student's recruitment, quality control and assurance processes, student's assessment and records management among others. Failure of the institutions to comply with these internal policies and procedures, as well as external requirements poses significant financial and reputational risk to these institutions and even sometimes lawsuits (Steinfeld & Archuleta, 2006). Managers of educational institutions need to implement effective strategies and governance structures to ensure compliance with these requirements and policies.

Professional accountancy education in Ghana is the sole mandate of the Institute of Chartered Accountants, Ghana (ICAG). The Institute is mandated by its Act, Act 170, 2020 as amended to promote the study of accountancy, regulate the accountancy profession and practice and to provide for related matters. The Institute has performed its role over the years by implementing a structured syllabus to train and equip its accountants with the requisite knowledge and skills to meet the demands of industry. The syllabus is a contract between the Institute and students who enrol to write the examinations (Rumore, 2016), that clearly outline the topics to be examined, learning outcomes, structure of examination, weight of questions, grading policy and other related policies. These policies and guidelines assist students to determine what to learn, how to apportion their time on topics based on the weights assigned to be successful in their examinations (Kaur, 2019). In assessing students, ICAG has a responsibility to comply

with its policies and guidelines relating to the conduct of its professional examinations, as spelt out in the syllabus, to help students learn and to avoid reputational damage or lawsuits.

In recent years, employers have expressed concern about the quality of accountants produced in Ghana. Accountants produced for the job market have been criticised for not being critically minded and independent in the performance of their jobs (Owusu *et al.,* & Welbeck, 2019). The kind of examination questions asked by the ICAG may affect the thinking abilities of students. Moreover, the pass rates of students who sit for the various courses of the professional ICAG programme are low, and this has been a major concern to the Institute. The average pass rate for level one over the period 2015 and 2018 was less than 50 percent, while that of level three was 34 percent. Allen and Woodland (2006) suggest that examination pass rate is an important gauge of accounting programme success and can be used as an indicator of the resources committed by educators to help students prepare for the profession. These statistics are a worry and requires investigation for its resolution. Although the ICAG has regularly reviewed its syllabus, to meet changing market trends and to improve performance, the pass rates still remain low. The compliance of the examination content with the ICAG Syllabus is an issue worth considering for appropriate policy measures to be taken.

The knowledge and skills that ICAG syllabus seeks to achieve must be delivered on and examined to produce qualified and more employable graduates. A good and reasonable examination paper must consist of various difficulty levels to accommodate different learning capabilities of students (Jones *et. al,* 2009). Efforts to make the syllabus relevant in producing the required professional accountants will be futile if the syllabus is not properly linked with the examination content. The pass rates may also be affected by the syllabus-examination disconnects, perhaps derailing the efforts of the Institute to increase the supply of quality

accountants in Ghana. This paper therefore seeks to study the link between the syllabus and examination content of the ICAG to determine its compliance level. The findings of the study will provide the Institute with the needed information on the extent of its syllabus compliance to be able to adopt appropriate measures and systems to ensure better compliance.

## 1.1     Objectives of the Study

The purpose of this study is to assess the link between the ICAG syllabus and examination content to determine the extent of compliance. Specifically, the study seeks to:

   i.   Establish the strength of connectivity of the ICAG syllabus and examination content of all levels of qualifications from May 2015 to May 2019.

  ii.   Examine the relationship between syllabus-examination fitness/compliance and examination pass rates of the ICAG professional examination at all levels.

## 1.2     Significance of the study

The results of this study are significant in a number of respects. First, the results will inform Management of the ICAG of the degree of conformity between its syllabus and examination content. This will help the Institute to adopt appropriate policy measures to enhance its compliance level. It will also inform management on the extent of spread of questions over topics and the level of knowledge assessed for appropriate policies. The result of the effect of compliance on pass rates of ICAG will inform policy action for improvement. Finally, the result of this research will be disseminated to examiners and tutors of ICAG for effective deployment of the ICAG syllabus and assessment to enhance students' performance.

**1.3    Organization of the Study**

The paper is presented in six sections. Section one presents the introduction of the study, which includes the objectives and significance. Section two presents a review of literature on issues of compliance, syllabus and examinations as well as the theoretical underpinnings of the study. This is followed by a description of the procedure and techniques employed to achieve the objectives of the study. The findings and discussions are presented in section four. Section five presents the conclusion and this followed by recommendations in section six.
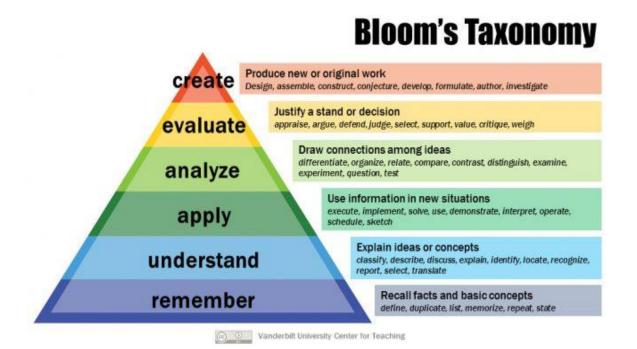
**2.0    Literature Review**

This section reviews and presents theoretical literature or framework underpinning the study: the Bloom's Taxanomy, syllabus and how it helps students to succeed in examination and the meaning and importance of compliance. It also presents empirical literature on the factors affecting the compliance of standards and procedures in examination conduct. It reviews and presents factors affecting pass rate of professional accountancy examination across the world. It finally presents the link between syllabus and examination content across the world by relying on the Bloom's Taxonomy or framework of levels of knowledge assessment.

**2.1.    Theoretical Framework of the Bloom's Taxonomy**

The theoretical framework underpinning the study is the Bloom's Taxonomy. According to Bloom *et al*. (1994), Gronlund (1991) and Krathwohl *et al*. (1956), one of the most widely used techniques of organizing levels of expertise is according to the Bloom's Taxonomy of Educational Objectives. Bloom's Taxonomy uses a multi-tiered scale to express the level of expertise required to achieve each measurable student outcome.

Bloom's Taxonomy, a six-level framework created by Benjamin Bloom in 1956, has been used for everything from framing digital tasks and evaluating software applications to writing questions for examinations and student assessments. The usefulness of Bloom's framework cannot be discounted especially in examinations and assessment of students. It provides educators with the tool to assess their teaching and subsequent learning and performance of their students. The Bloom's Taxonomy succinctly encapsulated in Figure 2.1 has six-levels as: Level 1- Remember; Level 2- Understand; Level 3- Apply; Level 4- Analyze; Level 5- Evaluate; Level 6- Create. Each level assesses the level of knowledge of students or learners.

**Figure 2.1: Bloom's Taxonomy**



The theoretical justification for the adoption of the Bloom's framework is anchored in the objective of the study: the link between the syllabus and examination content of ICAG. The Bloom's framework provides the tool for the study to achieve its objective one by designing a *Research Reporting Framework* (See Appendix II) to collect the necessary data for analysis.

In designing the Reporting Framework, the team listed the various topics, learning outcomes and the skills and competences required, per level and per subject that ICAG syllabus seeks to accomplish. Thereafter, the learning outcome and topics in the syllabus were matched with the examinable skills, competences and knowledge in the examination papers to establish existing syllabus-examination nexus. The Bloom's Taxonomy helped in achieving this.

## 2.2    Meaning of Syllabus and how it helps students succeed in Examination

A syllabus is an instructive and a course-planning tool that sets a standard of what is expected to happen during the complete course session (Kaur, 2019). It prescribes the topics and concepts on the basis of which students will be tested in the final examination. It serves as a contract between the students and the teachers which contains functions and ideas that are used for the assessment of the students' performance. It functions as a communication device by providing details of how student learning will be assessed and about the roles of both students and instructors in the learning and assessment process (Habanek, 2005).

Parks and Harris (2002) describe syllabus as a contract between instructor and student which sets forth expectations and guides behaviour. According to Harvey (2004) a syllabus specifies the aims, objectives or projected outcomes, content, mode of delivery, chronology and form and weighting of assessment of a course or unit of study and as such makes the learning process transparent to the student. This definition provides all the information about a course or subject needed by the student to prepare for his or her examination to excel.

A syllabus delineates the responsibility of both the instructor and students. A syllabus helps the instructor to prepare and organize the course to be delivered. It describes the course goals, the course structure and assignments, exams and other policies and activities required for

students to learn. It conveys to students a clear idea of the course content and the knowledge they will gain throughout the course. It establishes a contact and connection between students and instructors by stating the objectives and goals to be achieved at the end of the course.

A syllabus for any particular course describes the topics and concepts to be covered while preparing for the examination for that course. It also mentions the weightage allotted to different units and chapters, knowing which helps students to strategize on how to prepare for topics with high or low weights. The syllabus also explains question paper format, which helps students to know about the type of questions asked and various sections employed in the examination paper. It gives an idea about the marks distribution in the paper. Examination papers are generally designed as per the syllabus prescribed. So preparing according to the topics and instructions in the syllabus helps to track the exams with good results.

The ICAG syllabus for the professional qualifying examinations is a 61-page document that was introduced in May 2015 to meet the goal of the scheme through the subject structure and coverage. It details the aim, structure, objectives and performance outcome of each level, results and interpretation as well as reading materials for the various subjects. It also captures exemption policy and transitional arrangements from the previous syllabus. This information is relevant for students who enrol on the programme to write and pass their examination. The syllabus is a 14-subject 3-level-structure examination that combines subjects which address the practical skills requirements of a professional accountant, with others mainly of theoretical/ conceptual nature, and therefore serves as a good grounding for the Professional Accountant.

**2.3     Meaning and importance of Compliance**

The concept of compliance is an important one that has received much attention over the past decade, not only in the world of business but also in education. The International Compliance Association (2019) defines compliance as the ability to act according to an order, set of rules or request. Roebuck (2011) also defines compliance as conforming to a rule, such as a specification, policy, standard or law. It is the act of being in alignment with policies, guidelines, regulations and/or legislation in an industry. Compliance is either a state of being in accordance with established guidelines or standards or the process of becoming so. It encompasses efforts to ensure that organizations are abiding by both industry regulations and government legislation. In business, a firm or organization should have a well-thought-out plan that includes the appropriate or right policies and procedures to ensure they meet compliance requirements in a timely manner. Compliance is simply obeying the rules.

Compliance is also considered as the set of processes an organization uses to ensure that its employees and the organization as a whole abide by its internal rules of conduct and external rules and regulations. It may include written and published values, ethics policy, standard operating procedures, employee handbook, legal obligations as well as international business standards to which an organization might have received certification (Heim, 2018).

Compliance regulates and protects people in a particular setting, as people have to follow the rules and regulations to avoid violations El Kharbili (2012). Violation of the said rules and regulations can lead to consequences such as fine, suspension, dismissal and other forms of punishment. According to McNutt and Rossi (2010), compliance reduces individual and organizational risk as it helps people to avoid getting themselves into trouble such as fines, suspensions and dismissals. Compliance saves organisations from trouble such as legal

battles, employee injuries and deaths. Cannon (2010) indicated that when people comply with rules and regulations, it builds their confidence and also helps them to act with less hesitation. It also establishes customer trust and brand loyalty, improves operational processes, boosts the bottom line and enhances consistency as well as reduces unforced errors (Heim, 2018)

In the context of education, compliance is abiding by the requirements of the regulator, rules, policies and procedures to ensure high quality standards. Compliance in education operates in two levels: compliance with the external rules that are imposed upon an organisation as a whole and compliance with internal systems of control that are imposed to achieve compliance with the externally imposed rules. Educational institutions, in this context, must comply with laws, regulations and internal policies designed to ensure the smooth running of their activities. For example, universities must comply with teaching regulations as set out by various treaties; they must seek accreditation of their study programs regularly.

The ICAG has internal rules, guidelines and procedures that aid in the assessment of students who register to write the Institute's professional qualifying examinations. These include the number of questions students must attempt in the examination, how a student should progress from one level to another, marks to obtain to pass a paper, and students who do not qualify after ten years will not be allowed to write the examination as well as the weight assigned to each topic in the syllabus. Compliance in this paper therefore means the ability of the ICAG to abide by or adhere to its own internal policies and guidelines spelt out in the syllabus to guide teaching and assessment of students. ICAG is expected to set questions to cover topics specified in the syllabus with the appropriate marks as indicated as weight in the syllabus. The marks available in the assessment should be equal to the weight in the syllabus. This is expected to guide students in determining the relative study time to spend on each topic.

### 2.4    Factors Affecting Compliance of Standards and Procedures in Exams Conduct

Murphy and Canales (2001) argue that policies and procedures are very critical in ensuring compliance in examination conduct. When policies are clear, teachers and students easily understand and are more likely to comply. But, when policies are not clear to stakeholders there is the likelihood that people will fail to comply. Alismail and McGuire (2015) also explain that policies contain the necessary information needed for stakeholders to comply with standards, and therefore if this information is not available or lacks clarity, people might have difficulty understanding them, and the possibility that they will not comply is high.

Evangelista (1999) indicated that training and education affects compliance of standards and procedures in examination conduct. When people are educated on how to comply with standards and procedures in examination conduct, they turn to pay attention which leads to avoidance of examination misconduct. Sometime, people engage themselves in examination misconduct because they are not aware or have inadequate knowledge on the standards and procedures. Therefore, educating them on these standards and procedures is one surest way to enhance compliance. Like education, training is also considered very important in enhancing compliance of standards and procedures in examination conduct. When people are given compliance training, they tend to understand whatever policies, standards and procedures they are to follow to avoid examination misconduct.

Effective monitoring system affects compliance of standards and procedures in examination conduct. Monitoring is the act of observing and checking the progress or quality of something over a period of time (Ly *et al.,* & Dadam, 2011). Monitoring is very critical to compliance of standards and procedures in examination conduct. When there is effective monitoring mechanism to check compliance of standards and procedures in examination conduct, the

possibility of witnessing low examination misconduct is high. On the other hand, when there is no effective monitoring mechanism to check compliance, the possibility of witnessing high examination misconduct is low (Ly *et al.*, 2015). Monitoring and supervision reduce examination misconduct through high compliance of standards and procedures.

**2.5    Factors affecting pass rate of professional Accountancy Examination**

The ultimate goal of every student who writes examination is to pass and progress to the next stage. The pass rate however, depends on a number of factors which may include the number of hours spent in learning a course, the quality of teaching received by students, delivery of syllabus content among others. Clayton (2012) examined how changes in accounting curriculum affect pass rate. It was found that curriculum improvement leads to improved pass rates for accounting students. The study shows that changes in the accounting programme curriculum contributed to the Uniform Certified Public Accountants (CPA) exam pass rate exceeding the American Institute of Certified Public Accountants (AICPA) published pass rates. Allen and Woodland (2006) argue that improvement in CPA exams pass rates alleviates the concerns associated with the costs of entering the profession and that pass rates success may be a benefit that outweighs the cost associated with an additional year of education.

Rodrigues *et al.,* (2018) explore factors that affect the success of candidates in the professional entry examination conducted by Brazil's Federal Council of Accounting. The paper analysed results of 18,948 candidates who sat for the exams in 2012, using a logistic regression model. The paper found that success is related positively to the quality of the Higher Education Institution's from which candidates graduated. It also found that males perform better than females and those younger candidates perform better than older candidates.

Roos (2009) explored the factors affecting the results obtained by Southern African students in the professional qualification examinations of the Chartered Institute of Management Accountants (CIMA). This was achieved by using 13 variables administered by questionnaire to the students. The study found age, tuition and study material to significantly affect examination success. Younger candidates, candidates who attended part-time tuition and those who used BPP textbooks were more successful. The study also found that female outperform males, and candidates had a smaller chance of passing all the papers at a time, and first-time candidates had a higher tendency to pass than repeat candidates

## 2.6    Empirical Literature on Blooms, Syllabus and Examination Nexus

There are few studies that examined the link between syllabus and examination across the world. Awanta (2005) explored the relationship between implementation of the Ghanaian Basic School Mathematics curriculum standards and the nature of the Basic Education Certificate Examination (BECE). The study covered the period between 1992 and 1999, using past BECE examination papers. The result suggests that there is little evidence to prove that the BECE examination papers reflect the curriculum standards. According to the paper there is the problem of whether teachers teach according to what is generally spelt out in the curriculum or not. The paper suggests that the scope of the study is limited for generalizations to be established, hence there is the need for a further and more detailed study into this issue.

Habanek (2005) conducted a study examining the integrity of twenty-five syllabi gathered from the Website of a Mid-Western University. The syllabi were analyzed for course outcomes, materials, schedule, respect for individuals, details on how to be successful in the course, and the instructor's model for organization and enthusiasm. The study found that twenty-two of the syllabi examined did not meet all the criteria of an accountability

agreement that defines the responsibility of instructors and students as well as the conditions for success of students. The author further finds that the syllabi analysed shows inconsistency in communication, thereby, corrupting the assessment agreement that the syllabus represents. This according to the author tends to negatively affect the performance of students.

Jones *et al.* (2009) examined the relationship between examination questions and bloom's taxonomy by presenting cross-analysis across student performance, cognitive skills requirements and module learning outcome. It suggests that frequently academics design examination questions that match the required cognitive skills, although there is still work to be done to improve the situation. The paper did not find direct association between question level and the mean mark. It also found that there was no consideration of the module learning outcomes, which is a major factor in aligning questions to required skills.

Herbert *et al.,* (2009) explored the issues involved in maintaining operational alignment between curriculum aims, teaching and the assessment of student learning. Using a case study of ACCA, the authors examined published syllabi, examination and marking schemes for June 2005 examinations. The findings from the case study show actual instances of drift across learning outcomes, examinations and marking schemes. Again, the authors find that the drift is likely to occur in all forms of education, although empirical evidence is usually difficult to access due to the confidential nature of assessment processes.

Boit *et al.* (2012) also examined the relationship between examinations conducted in secondary schools and the stated curriculum goals in Bomet District in Kenya, using the Wiggins and McTighe (1999) backward design theoretical framework. The study established that examination had a backwash effect on the curriculum. Teachers cannot engage all the

methods of instruction to attract the learners interest in class, selection of the content is determined by the examinability and integration of life skills in the various subjects was also ignored and rushed over. The study recommended that the examination setters should attempt to set balanced examination questions to include all areas of the syllabus, and test questions which do not require procedural skills alone but also require thinking skills that prepare students to be innovative, creative and imaginative.

Hedwick *et al.* (2013) explored the impact of Ordinary level examinations on the school curriculum in Zimbabwe. The paper gathered data from document analysis and interviews with tutors, students and various agencies. They concluded that there is a mismatch and also a negative impact of examinations on the school curriculum. They found that examinations have a backlash on effect on curriculum. That is, there is mismatch between the stated curriculum and examination content in the various secondary schools sampled. The study recommended that examination setters should set balanced examination questions to include all areas of the syllabus. The study relied on both the qualitative and quantitative approaches to achieve the research objectives.

## 3.0    Methodology

### 3.1    Research Design

The study used content analysis, descriptive statistics, stationarity test and panel regression analysis to determine the link between the ICAG syllabus and its examination content: a case of compliance. A review and mapping of the content of the syllabus and examination questions was undertaken to determine the extent of compliance, using data from the ICAG.

## 3.2    Data Collection and Method

Data collection template/framework was designed for the study, out of which tables were extracted from the content analysis to achieve the research objectives. Secondly, the effect of the spread of examination questions compliance, Bloom's Taxonomy compliance and effect of overall compliance on Students' Pass Rate (PRATE) were ascertained via panel regression analysis. The data on Students' Pass Rate (PRATE) were obtained from ICAG.

The research relied on past examination papers of the courses of the various levels from May 2015 to May 2019 and syllabus of ICAG gathered from the Institute. Ten (10) enumerators and Six (6) Research Team Members were employed in the data collection. Each research team member was responsible for two out of the fourteen examination papers for each of the examination sitting for the period. After the research team had designed the template for the data collection, the enumerators were first trained by the research team on the designed data collection framework. The training was done in a week after which they were made to pre-test it for the data collection. After the pre-testing, revisions were made to the framework before the actual data collection. The enumerators were part qualified students of the Institute of Chartered Accountants (ICAG) and other professional accountancy programmes.

In designing the templates for data collection, a mapping exercise was conducted to ensure alignment between learning outcomes, objectives and assessment, thereby contributing to ongoing curriculum quality and improvement and improved examinations reliability and validity. Each enumerator was given either one or two subjects for data collection under the supervision of a research team member. The Research Team audited and reviewed the data collected by the enumerators. This was to ensure that the right data was entered for analysis.

## 3.3 Analytical Technique

The research used both content analysis and regression analysis to achieve the objectives of the study. The team first identified and listed the topics, learning outcomes and the skills and competences that ICAG syllabus seeks to achieve. It also identified and listed the knowledge and competences each examination question seeks to examine. After this, the learning outcome and topics in the syllabus were mapped one after the other with the skills, competences and knowledge being examined in the examination papers. This enabled the team to determine the existing syllabus-examination linkage. Each learning outcome or objective in the syllabus was mapped to all related examination questions in the examination papers. Learning objectives not linked to any specific examination questions were identified. All the examination questions were mapped back to the learning objectives and all questions not corresponding to a learning outcome were identified. Mapping the content of the syllabus is an exercise intended to help the research team to assess how well their course curriculum covers the knowledge and skills tested by the ICAG professional examination.

Using the main Microsoft Excel Data Collection Template, the study reviewed examination questions administered over the period based on the Spread of questions over topics in the syllabus, weight versus marks compliance level, Bloom's Taxonomy compliance level, Level specific Bloom's Taxonomy compliance, and Overall compliance level. The study was completed in ten (10) months, after the research was commissioned, spanning from February to November, 2020, and the report subsequently completed.

### *3.3.1 Model Specification*

To achieve objective two in section 1.2, a multiple regression model was specified as follows:

$$PRATE_{it} = \alpha_o + \beta_1 SPRD_{it} + \beta_2 BLMS_{it} + \beta_3 COMP_{it} + \varepsilon_t \qquad (1)$$

Where: PRATE is the Students' Pass Rate of each level $i$ in time $t$, SPRD is the spread of questions over topics in syllabus compliance level, BLMS is the Bloom's Taxonomy compliance level, COMP is the Overall compliance level, and $e$ is the error term which is assumed to be independently identically distributed with a mean of zero, a constant variance and not serially correlated. Each of the variables is expected to have a positive effect on students' pass rate. The Ordinary Least Square Method of estimation was used to estimate the model, using the Computer Software EViews version 10. Stationarity test was also conducted to check for unit root problem before estimation of the panel regression model.

## 4.0    Results and Discussion

This section presents results of the data analyzed for the three levels and a detail discussion of the findings. The results which have been presented in Tables 4.1 to 4.4, summarizes the average scores per defined reporting item for each of the fourteen (14) papers, and the effect of overall compliance items on students' pass rates over the period May 2015 to May 2019. The detailed results of each subject are presented as Appendices to the report.

## 4.1    Findings on Level One Papers

Level One of ICAG professional qualifying examination is made up of four papers: Paper 1.1 Financial Accounting, Paper 1.2 Business Management & Information System, 1.3 Business and Corporate Law and 1.4 Quantitative Tools for Business. As per the syllabus, this level seeks to provide students with the basic principles and knowledge required to understand the business environment. The learning objectives and verbs that appear in the learning outcomes and examinations were *Knowledge*, *Comprehension and Application* of knowledge[1]. It was

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[1] Refer ICAG General Guidance Notes for Students and Lecturers on how to Read and Interpret Verbs used in Examinations Questions.

based on these *three objectives*[2] that the Blooms Taxonomy for the study was fashioned and conclusions on the general observations made. Based on the average scores obtained for the period as shown in Table 4.1, the average spread of questions over topics over the period was 64.9%. This indicates that examination questions for the period of the study covered 65% of the topics in the syllabus. The average weight versus marks item over the period was 19.9%. This indicates that approximately 20% of the syllabus weighting grid was actually allotted in the examination marks. Ninety-two (92.1) percent of the questions set over the period assessed the knowledge level of the candidate with an overall compliance rate of 54.5%.

**Table 4.1: Summary of compliance level report - Level 1**

| Number | Reporting Item | Level One Papers - Summary | | | |
|---|---|---|---|---|---|
| | | Paper 1.1 | Paper 1.2 | Paper 1.3 | Paper 1.4 |
| 1 | Spread of Questions over Topics | 74.1 | 49.7 | 58 | 77.8 |
| 2 | Weight versus marks compliance level | 49.9 | 11.7 | 14.8 | 3.3 |
| 3 | Blooms Taxanomy Compliance Level | 51.9 | 33.3 | 42.7 | 53.7 |
| 4 | Levels specific Blooms Taxanomy | 99.8 | 100 | 85.2 | 83.2 |
| 5 | Overall Compliance | 67 | 40.3 | 50.1 | 60.5 |
| 6 | Specific Blooms Taxonomy | Apply | Explain | Explain | Apply |

**Source: Authors Computation (2020)**

### *4.1.1   Spread of Questions over Topics*

Paper 1.4 Quantitative Tools for Business recorded the highest average spread of examination questions over topics of 77.8%. This implies that, averagely 77.8% of examination questions set over the period covered the topics in the syllabus. Papers 1.1, 1.3 and 1.2 recorded average scores of 74.1%, 58% and 49.7% respectively. This indicates that over the period, two of the four papers have their exams questions covering about three-fourth of the topics in the syllabus. Examinations questions need to adequately cover topics in a syllabus to enable

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[2] To simplify and harmonise the objective for all the three levels, the researchers adopted r*ecall facts, explain ideas, apply, analyse and evaluate* as the key words for which each level specific Blooms' Taxonomy was determined.

students prepare, write and pass the examination. Where this is not the case, but limited to just a few topics, students are limited to choosing and answering questions that they may not have covered, hence may adversely affect their performance in the examination. Going forward, the Institute should ensure that examiners set questions to adequately cover the topics in the syllabus to give every student fair opportunity to write and pass the exams.

### *4.1.2 Syllabus Weight Grid versus Examination Marks Compliance level*

Regarding the allocation of marks in line with the syllabus weighting grid compliance, the study observed that on the average only 3.3% of the syllabus weighting grid of Paper 1.4 was complied with during the period. This is to say that about 97% of the marks assigned to the questions were not in compliance with syllabus weighting grid. The examiners of Paper 1.4 may not have considered the syllabus weighting grid in assigning marks to the questions but rather assigns marks as long as it gives the required total. Paper 1.1 however achieved about 50% compliance of the syllabus weighting grid, followed by 14.8% for Paper 1.3 and 11.7% for Paper 1.2. The weight assigned to topics in the syllabus indicates the importance the Institute attached to them, and consequently the time students should allot in studying it. The results clearly suggest that marks assigned to questions do not conform to the weighting grid in the syllabus. The student may end up answering questions with higher marks than what the syllabus actually says. As students allot fewer times in studying topics that have more marks in the examination, he or she may end up not performing, hence pass rate.

### 4.1.3  Bloom's Taxonomy Compliance Level

The papers of level one assess knowledge of students in the four subject areas. The questions are set to assessed students' knowledge and understanding of the principles and concepts. As to whether the examination questions set were based on the three general learning objectives for level one, Table 4.1 shows that on the average 54% of the examination questions of Paper 1.4 conform to the Bloom's Taxonomy. Furthermore, 51.9%, 33.3% and 42.7% of the exams questions of Papers 1.1, 1.2 and 1.3 respectively conforms to the Blooms Taxonomy specified in the syllabus. The implication is that the *examination requirements,* using the key words for Paper 1.2 and 1.3 were below average scores. Examiners need to ensure they consider Blooms Taxonomy used in the syllabus when setting their examination questions.

On key specific Blooms Taxonomy however, the results indicate that Paper 1.2 scored 100%, followed by Papers 1.1, 1.3 and 1.4 with 99.8%, 85.2% and 83.2% respectively. This means that over the study period, the specific level Bloom's Taxonomy was very encouraging. Most of the questions set for Level one over the period, were on the learning objectives: Apply and Explain. Considering the nature of the paper, questions of Papers 1.1 and 1.4 went beyond just knowledge questions to application questions. With Financial accounting, candidates are expected to prepare financial statements, and with Quantitative Tools of Business that also demand candidates to apply the answers derived from their computations.

### 4.1.4  Overall compliance level

The overall compliance level of the examination questions set in relation to the *Spread of questions over topics in syllabus compliance level*, *Weight versus marks compliance level*, and *Bloom's Taxonomy compliance level,* revealed in Table 4.1 that Paper 1.1 achieved the highest average overall compliance score of 67%. This means that using the three measures,

Paper 1.1 achieved an average overall compliance of 67%. Papers 1.4, 1.3 and 1.2 recorded average compliance scores of 60.5%, 50.1% and 40.3% respectively.

## 4.2    Findings on Level Two Papers

There were six traditional core papers in level two: Paper 2.1 Financial Reporting, Paper 2.2 Management Accounting, Paper 2.3 Audit ad Assurance, Paper 2.4 Financial Management, Paper 2.5 Public Sector Accounting and Finance and Paper 2.6 Corporate Reporting Strategy, Governance and Ethics. In addition to ascertaining technical expertise required of a modern accountant, this level enables students to acquire background knowledge and skills necessary needed for effective performance at middle management level. The learning objectives and verbs that appear in the syllabus learning outcomes and examinations are *Comprehension, Application and Analysis.* Specifically, this level assessed the application level of the Blooms Taxonomy. Based on the average values in Table 4.2, the average spread of questions over topic was 83.5%, while syllabus weighting grid was 43.7. About 76.9% of the questions set for this level over the period assessed comprehension to application level of the Blooms Taxonomy. At this level students are expected to demonstrate application of the technical knowledge acquired to be able to perform at the middle management level.

**Table 4.2: Summary of compliance level report - Level 2**

| No. | Reporting item | Level Two papers - Summary | | | | | |
|-----|----------------|-----------|-----------|-----------|-----------|-----------|-----------|
|     |                | Paper 2.1 | Paper 2.2 | Paper 2.3 | Paper 2.4 | Paper 2.5 | Paper 2.6 |
| 1 | Spread of Questions | 94.4 | 94.4 | 94.4 | 90.3 | 84.44 | 42.89 |
| 2 | Syllabus Weighting Grid | 66.7 | 66.7 | 66.7 | 37.5 | 18.89 | 5.56 |
| 3 | Bloom's Taxonomy | 59.3 | 59.3 | 59.3 | 59.2 | 50 | 50 |
| 4 | Level Specific Bloom's | 96.4 | 96.4 | 96.4 | 40.4 | 66.11 | 65.57 |
| 5 | Overall compliance level | 85.4 | 85.4 | 85.4 | 76.6 | 67.89 | 36.11 |
| 6 | Specific Blooms Taxonomy | Apply | Apply | Explain | Apply | Explain | Explain |

**Source: Authors Computation (2020)**

### 4.2.1 Spread of Questions over Topics in Syllabus

In examining the average spread of examination questions over main topics in the syllabus, Table 4.2 shows that Papers 2.1, 2.2 and 2.3 recorded an average of 94.4% spread over the period of the study, suggesting a very high compliance level. Papers 2.4 and 2.5 however recorded 90.3% and 84.44% compliance scores respectively. Paper 2.6 Corporate Reporting Strategy, Governance and Ethics recorded the lowest spread of 42.89%. This result is an indication that with the exception of Paper 2.6, the questions set at this level adequately cover the topics in the syllabus. Of all the compliance indicators, the spread of questions over topics in syllabus indicator was the most complied. It is better for the examination questions to cover as many topics in the syllabus as possible to give students more options of questions to choose from. Moreover, candidates are better equipped with the skills to perform at the middle management level.

### 4.2.2 Syllabus Weight Grid versus Examination Marks Compliance level

Over the study period, the researchers observed that averagely, Papers 2.1, 2.2 and 2.3 scored 66.70% compliance level with respect to the allocation of marks in line with the syllabus weighting grid. The scores of these three papers are relatively higher than the 37.5%, 18.89% and 5.56% scores obtained by Papers 2.4, 2.5 and 2.6 respectively. The results mean that Papers 2.1, 2.2 and 2.3 were the most complied papers. It is clear from the results that examiners may not have looked at the syllabus weighting grid in allotting marks for the examination questions over the period. This may affect students' performance, as they may not have given a lot of time to study topics whose questions now have more marks, instead of low weighting grid provided by the syllabus. It is imperative that examiners consider the syllabus weighting grid when allotting marks to examination questions to ensure compliance.

### 4.2.3 Bloom's Taxonomy compliance level

Table 4.2 shows that 59% of the exams questions of Papers 2.1, 2.2, 2.3 and 2.4 conform to the Bloom's Taxonomy over the period. Papers 2.5 and 2.6 reported an average of 50% over the study period, implying that the *examination requirements* using the key words were just average. The competences that the learning outcomes seek to achieve in the syllabus appear not to have been assessed, as shown by the average level the Blooms' Taxonomy level. With respect to the key specific Blooms Taxonomy of application, Table 4.2 shows that Papers 2.1, 2.2 and 2.3 recorded 96.4%, suggesting a high specific Blooms Taxonomy compliance. This was followed by Papers 2.5, 2.6 and 2.4 with 66.1%, 65.6% and 40.4% respectively over the period. The researchers observed that most of the questions set for Level two over the study period were on the learning outcome: Explain and Apply. Most of the questions for Financial Reporting and Management Accounting were application questions, while Public Sector and Finance and Corporate Strategy, Governance and Ethics were explanatory questions. ICAG must assess the level of knowledge it says it will assess, to avoid producing professional accountants without the needed competences and skills. The Institute needs to develop and implement effective monitoring systems to ensure examiners at this level set examination questions that actually assess the application ability of students.

### 4.2.4 Overall compliance level

The study examined the overall compliance level of the examination questions set, taking into account the *Spread of questions over topics in syllabus*, *Weight versus marks compliance level*, and *Bloom's Taxonomy compliance level.* The results captured in Table 4.2 show that Papers 2.1, 2.2 and 2.3 recorded an average overall compliance scores of 85.4%, indicating a good compliance level for these three papers. Paper 2.4 recorded an average score of 76.6%, while Paper 2.5 also recorded 67.9%, with Paper 2.6 recording 36.1%. The

## 4.3 Findings of Level Three (3) Papers

The final level of the ICAG professional examinations consist of four papers: Paper 3.1 Corporate Reporting, Paper 3.2 Advanced Audit and Assurance, Paper 3.3 Advanced Financial Management and Paper 3.4 Taxation and Fiscal Policy. This level emphasis on the use of business cases, strategy and developing advisory skills of the professional accountant. The learning outcomes and verbs that appear in the syllabus learning outcomes and examinations are *Application, Analysis and Evaluation*. The average spread of questions over topics in the syllabus for courses in this level over the period was 76%, while the syllabus weighting grid compliance was approximately 50%. The overall compliance was found to be about 74%.

Although this spread of question over topics for this level is relatively high, it is lower than that of level two. Similarly, the level of Blooms Taxonomy measured for this level (73.7%) to achieve the stated learning outcomes in the syllabus is relatively lower than that of level two (76.9%). This is the final stage of the qualifying professional examination and it is important that examination questions set cover all the stated topics in the syllabus, and also assessed the appropriate level of knowledge at this professional level to develop students adequately for the job market. Given that all questions in the final level are compulsory, it is appropriate that students are aware of the extent of coverage of exams questions at this level to enable them prepare well for the examination. Failure to draw their attention to this means that student will hand-pick topics they are more comfortable with to study for their examination. This will not fully develop the right competences/skills in them to perform as professional accountants.

**Table 4.3: Summary of Compliance level report - Level 3**

| Number | Reporting Item | Level Three Papers - Summary | | | |
| --- | --- | --- | --- | --- | --- |
| | | Paper 3.1 | Paper 3.2 | Paper 3.3 | Paper 3.4 |
| 1 | Spread of Questions over Topics | 90.5 | 75.3 | 75.3 | 62.9 |
| 2 | Weight versus marks compliance level | 54.0 | 65.4 | 65.4 | 13.9 |
| 3 | Blooms Taxonomy Compliance Level | 61.1 | 63.0 | 63.0 | 100.0 |
| 4 | Levels Specific Blooms Taxonomy | 83.3 | 46.8 | 46.8 | 66.0 |
| 5 | Overall Compliance | 80.2 | 78.8 | 78.8 | 56.9 |
| 6 | Specific Blooms Taxonomy | Apply | Analyse | Apply | Apply |

**Source: Authors Computation (2020)**

### 4.3.1   *Spread of Questions over Topics in Syllabus*

Paper 3.1 recorded the highest average spread of examination questions over topics in the syllabus. About 91% of the examination questions set over the period covered the topics in the syllabus. Papers 3.2 and 3.3 both recorded average scores of 75.3%, while Paper 3.4 reported 62.9%. Thus, during the period of the study, the examination questions set for *level three* were above 62% compliance level, and this needs to improve, as this is the final level.

### 4.3.2   *Syllabus Weight Grid versus Examination Marks Compliance level*

Regarding the allocation of marks in line with the syllabus weighting grid compliance, the study observed that in the case of Paper 3.4, only 13.9% was complied with over the period under consideration. That is to say that about 86.1% of the syllabus weighting grid was not complied with in allotting examination marks to the questions. In the case of Papers 3.2 and 3.3, 65.4% compliance level was achieved, followed by 54% for Paper 3.1. These scores affected the overall compliance level for this criterion which was less than 50 percent (49.7%). It is clear that examiners of this level did not use the syllabus weighting grid in allocating the marks for the papers. The low compliance level of this criterion means examiners attach their own weight to topics, differently from what the syllabus says. This should be avoided as the students will consider this as deviation from what the syllabus says, and may pose reputation

risk to the Institute. Effort must be made by the Institute's Compliance Unit, if any, to ensure examiners comply with the syllabus weighting grid when allocation marks to questions.

### 4.3.3   Bloom's Taxonomy Compliance Level

The Bloom's Taxonomy compliance level seeks to assess the extent to which the examination questions set were based on the three general learning objectives for level three. The results which are presented in Table 3.3 reveals that Paper 3.4 recorded 100% average compliance level, while Papers 3.2 and 3.3 scored 63%. Paper 3.1 also reported 61.1%. The implication for the results is that the *examination requirements* using the key words for level three complied over 60% of the time during the study period. With regard to the level three specific taxonomy, the results further indicate that Paper 3.1 recorded 83.3%, followed by Paper 3.2 and Paper 3.3, both with 46.8% and Paper 3.4 recording 66%. Given the professional nature of the courses at this level, questions have to assess the higher level of the Blooms Taxonomy to develop the requisite professional skills in students to effectively perform.

### 4.3.4   Overall Compliance Level

In examining the overall compliance level, the *Spread of questions over topics in syllabus compliance level*, *Weight versus marks compliance level*, and *Bloom's Taxonomy compliance level* were considered. Table 4.3 scored 80.2% for Paper 3.1 as the highest average overall compliance. Papers 3.2, 3.3 and 3.4 recorded an average overall compliance score of 78.8%, 78.8% and 56.9% respectively. The indicates that using the three compliance measures, Paper 3.1 has the highest compliance level, while paper 3.4 recorded the lowest. Level three papers have been designed to develop professional skills of students, and as such efforts must be put in to ensure examination questions fully comply with requirements in the syllabus. A study by Boit *et al.* (2012) found that as a result of imbalance in question setting, examination had a

negative effect on curriculum implementation. The ICAG needs to direct and encourage examiners to set balanced exams questions to capture all areas of its syllabus to test higher level Blooms' Taxonomy. This will ultimately develop the needed professional skills required of professional accountants to perform their jobs as expected of them.

## 4.4 Effect of Compliance indicators on Students' Pass Rate, 2015 - 2019

The research team also examined the effect of three key compliance indicators on the pass rate of students using data from 2015 - 2019. The spread of questions over topics in syllabus compliance level (SPREAD), Bloom's Taxonomy compliance level (BLOOMS) and Overall compliance level (COMP) were used as the independent variables, while Students' Pass Rate (PRATE) was used as the dependent variable. The results of the stationarity test presented in Table 4.4 shows no unit root problem at levels. The Augmented Dickey-Fuller Test Statistics for all the variables are statistically significant at 1% and 5% levels.

Table 4.4: Levels of the Augmented Dickey-Fuller (ADF) Unit Root Test results

| Variables | Levels | | |
| --- | --- | --- | --- |
| | Intercept | Trend & Intercept | None |
| Students' Pass Rate | -10.271*** | -10.294*** | -1.112 |
| Spread of Questions over Topics | -10.223*** | -7.719*** | 0.065 |
| Blooms' Taxonomy | -10.712*** | -10.723*** | -0.180 |
| Overall Compliance Level | -2.479** | -5.225*** | 0.025 |

**Source: Data (2020).** *significant at 10%;   ** significant at 5%;   *** significant at 1%

The study went further to estimate the panel regression model specified in section 3.3 to determine the effect of compliance indicators on students' pass rate, as presented in Table 4.5. Although the compliance indicators were not significant, spread of questions over topic met the a-prior expectation, except for Blooms Taxonomy indicator which was negative. The

positive sign of spread suggests that students' pass rate will improve if examination questions adequately cover the topics in the syllabus, all things being equal.

**Table 4.5: Effect of Compliance Indicators on Students' Pass Rate**

| Variable | Fixed Effect Model | | | Random Effect Model | | |
|---|---|---|---|---|---|---|
| | Coefficient | Standard Error | t-Statistic | Coefficient | Standard Error | t-Statistic |
| Const. | 0.3768 | 0.1915 | 1.9677 | 0.3848 | 0.1774 | 2.1685 |
| Spread | 0.2035 | 0.1991 | 1.0218 | 0.1959 | 0.1980 | 0.9890 |
| Blooms | -0.2287 | 0.2531 | -0.9034 | -0.2343 | 0.2266 | -1.0340 |
| R-squared | | 0.1743 | | | 0.1564 | |
| Adjusted R-squared | | -0.1560 | | | 0.0158 | |
| S.E. of Regression | | 0.1762 | | | 0.1625 | |
| Log likelihood | | 7.8031 | | | - | |
| Mean dependent var | | 0.3814 | | | 0.3814 | |
| S.D dependent var | | 0.1638 | | | 0.1638 | |
| Durbin-Watson stat | | 2.2721 | | | 2.2092 | |
| F-statistic | | 0.5276 | | | 1.1121 | |

**Source: Data (2020).**

The result of the Hausman test as presented in Table 4.6 shows that the probability value of 0.8972 of the chi-square Statistic of 0.2169 is greater than 5%, hence we fail to reject the null hypothesis that explanatory variables do not correlates with the error term. It is therefore concluded that the random effect model is appropriate for the data.

Table 4.6: Results of Hausman Test

| Variable | Fixed Effect (B) | Random Effect (b) | Difference (B - b) | Prob. |
|---|---|---|---|---|
| Spread | 0.2035 | 0.1959 | 0.0004 | 0.7099 |
| Blooms | -0.2287 | -0.2343 | 0.0127 | 0.9599 |

*Test difference in coefficient not systematic Chi2 (2) = b - B = 0.01, Prob > chi2 = 0.2169*

Although, not significant, the overall compliance rate variable (Comp) positively affected students' pass rate over time. This means that students' pass rate will improve if there is full compliance of the content of the ICAG syllabus.

**Table 4.7: Effect of Overall Compliance on Students' Pass Rate**

| Variable | Fixed Effect Model | | | Random Effect Model | | |
|---|---|---|---|---|---|---|
| | Coefficient | Standard Error | t-Statistic | Coefficient | Standard Error | t-Statistic |
| Const. | 0.2274 | 0.1253 | 1.8147 | 0.2221 | 0.1244 | 1.7852 |
| Comp | 0.2618 | 0.1995 | 1.3119 | 0.2708 | 0.1979 | 0.1943 |
| R-squared | | 0.1584 | | | 0.1433 | |
| Adjusted R-squared | | -0.0711 | | | 0.0774 | |
| S.E. of Regression | | 0.1696 | | | 0.1574 | |
| Log likelihood | | 7.6603 | | | - | |
| Mean dependent var | | 0.3814 | | | 0.3814 | |
| S.D dependent var | | 0.1638 | | | 0.1638 | |
| Durbin-Watson stat | | 2.6382 | | | 2.5982 | |
| F-statistic | | 0.6901 | | | 2.1752 | |

**Source: Data (2020).**

## 5.0 Conclusions

Syllabus is an essential course-planning tool that contains information on topics taught in a course, delivery mode of a course, competences to be developed by students, how students are assessed among others. This information helps students to learn and succeed in their examination. However, the examination questions or content must comply with the syllabus to achieve this goal. The study examined the link between ICAG's Syllabus and examination content to determine the extent of compliance. Spread of questions over topics in the syllabus was the most complied, with the least being syllabus weighting grid. The overall compliance level negatively and significantly affected students pass rates over the study period. The study therefore concludes that there are varying degrees of discrepancies and strength between ICAG syllabus and the examination questions administered by the Institute. This could discourage potential students from registering with the Institute, may lead to legal suits and above all affect the financial fortunes of the Institute as students may defect to write other

similar examinations. The Institute therefore needs to put in place appropriate measures to ensure adequate, if not full compliance of its syllabus.

## 6.0    Recommendation

Based on the findings, the following recommendations are made to improve the strength of linkage between the ICAG syllabus and the contents of examination questions administered:

i.      The Institute should train *examination question setters* to appreciate the content of its syllabus with respect to various topics and syllabus weighting grid and other requirements of the questions to enable them set balanced questions.

ii.     The level of knowledge of students assessed in the examination helps to develop critical competences and skills of professional accountants to effectively perform. It is recommended that examination questions should be well aligned by using the appropriate blooms taxonomy to help achieve the intended learning outcome. This will help develop appropriate competences and skills of students.

iii.    Training for Chief examiners and examiners on the need to ensure that the various compliance levels are achieved before questions are accepted and selected to be administered, and

iv.     In addition to the reports of the Moderators and Chief Examiners, feedback from candidates after each examination sitting should be collated and analysed to ensure that the various compliance levels or expectations were met.

**Research Team**

1. Dr. Raymond Dziwornu, Senior Lecturer and Dean of the Faculty of Accounting and Finance, UPSA

2. Asso. Prof. Ibrahim Mohammed, Senior Research Fellow and Director of Research and Consultancy Unit, UPSA

3. Dr. Helena Ahulu, Lecturer and Former Head of Accounting Department, UPSA

4. Dr. Richard Amankwa Fosu, Lecturer, and Research Officer, Accounting Department, UPSA

5. Mr. John Kwaku Amoh, Senior Lecturer, Accounting Department, UPSA

6. Mrs. Ivy Eklemet, Assistant Lecturer, Accounting Department, UPSA

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**Appendices**
Appendix I- Paper 1.1 to Paper 3.4
Appendix II- Research Reporting Instrument